

# Multilingualism in technical vocational education and training (VET) 

A case study from

eastern Switzerland and the Principality of Liechtenstein

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## Executive Summary

As a result of globalisation, people with varied language skills and language biographies are increasingly brought together in the workplace. To ensure that our future skilled workforce can operate effectively in such multilingual situations, it is important that vocational education and training (VET) programmes prepare all apprentices for the demands of such workplaces. However, as very little is known about the role of multilingualism in technical occupations and respective VET programmes, we have chosen to address this topic as part of an international collaboration project funded by Movetia.
This report provides an insight into the role of multilingualism in VET programmes related to eleven occupations*. The case study presented in this report suggests, on the one hand, that language needs in VET programmes are very complex and, on the other hand, that greater emphasis should be placed on multilingual education in VET programmes in the technical sector. Based on our findings, we argue for a more comprehensive multilingual education within technical VET and offer practical recommendations.

## Background of the case study

This study focuses on learners enrolled in Berufsund Weiterbildungszentrum Buchs Sargans (bzbs) (Buchs Sargans Vocational and Continuous Education Centre), which offers VET programmes for 26 different professions. Bzbs is located in eastern Switzerland on the border with the Principality of Liechtenstein. The apprentices who attend this vocational college in Switzerland (bzbs) are employed by companies in both Switzerland and the Principality of Liechtenstein.

## Methodical approach

In the first phase of our project, we surveyed 674 apprentices around four key questions, and published an initial quantitative evaluation in an interim report. In the second phase, we discussed these initial results with a variety of stakeholders, regionally and internationally, and gathered relevant feedback from 86 stakeholders in an additional survey. The mixedmethod analysis of quantitative and qualitative data led to detailed insights and recommendations.

## Results

Guided by four key questions, we document the participants' varied perceptions of apprentices' linguistic repertoires and backgrounds (Chapter 2), language use opportunities and mediation skills (Chapter 3), attitudes towards languages (Chapter 4), and interest in and opinions about language learning (Chapter 5).

Key question 1: What languages do apprentices bring with them to VET programmes?
The apprentices in our case study brought with them skills in a total of 50 languages. Most frequently mentioned were standard German and dialects thereof, followed by the two languages that apprentices studied at lower-secondary level (English and French). Importance was also attached to languages related to migration, and those learnt privately. The majority of apprentices ( $85 \%$ ) spoke standard German or a German dialect daily or almost daily at home, and around a quarter ( $24 \%$ ) also spoke a different language. On average, apprentices reported language skills in three languages, and a quarter skills in four or more languages.

Key question 2: How do apprentices develop and use their language skills in their VET apprenticeships?
Apprentices reported that they encountered a total of 26 languages in their workplaces, in both internal and external communicative situations. Additionally, understanding technical terms used internally, especially in English, was associated with preventing misunderstandings and mistakes. Apprentices also engaged in linguistic mediation between people of different languages, which they felt contributed to effective teamwork and an inclusive working environment. However, not all apprentices had the opportunity to develop such globally important competences. Access to appropriate multilingual experiences, and contexts in which language awareness can be developed, seemed to be related to the apprentices' family and private environments and their work situations and depended on their motivation and personal attitudes.

Key question 3: What role do languages play in the linguistic socialisation of apprentices in different professions?
The linguistic environment was perceived very differently between professions, companies or work situations. There were trends in some of the professional contexts we examined: while carpentry and joinery contexts tended to be more monolingual German-oriented, and industrial companies more international and English-oriented, construction sites tended to be more multilingual. Participants in our study were of the opinion that German and English in particular, but also many other languages, were relevant for their professions. These language needs seemed to be influenced by workplaces and personal attitudes held towards languages, as well as by the multilingual realities of society. While some of the participants in our case study experienced openness,

[^0]tolerance and respect towards people speaking other languages in their companies, others experienced linguistic prejudice and discrimination, and a desire for a monolingual society.
The language skills learners bring with them were used internally and externally at work; to get things done (operational), to work effectively in a team or in contact with clients (social), to promote a good working atmosphere and respect multilingual identities (emotional), and to make sense of information through an additional language (cognitive).

Key question 4: What does appropriate language education look like in VET programmes?
The apprentices in our case study reported major differences in terms of access to, and participation in, language learning opportunities in bzbs, in workplaces and privately. There was also a wide variation of opinion among respondents on the questions regarding which apprentices could benefit from language support, which languages are important, and how languages should be taught. The language needs in each respective company were also perceived very differently, depending on the company and the work situation rather than on the occupational specialisation. Our study shows, therefore, that the respective professional specialisation alone should not be the sole criterion when making decisions about language education in VET programmes.

## Recommendations for practice

The results make visible the complex nature of the topic under investigation: multilingualism in technical VET. In our case study, multilingualism in work situations was sometimes associated with conflict, exclusion and misunderstanding. However, where learners and staff were equipped with linguistic sensitivity, goodwill and mediation skills, efficient work and a good working atmosphere were perceived in multilingual teams.
Considering the great diversity of linguistic experiences, perceptions and opinions, as well as current research knowledge, the traditional or occupationspecific model of foreign language provision does not appear to meet the current and future complex needs. Therefore, our report suggests moving in a new direction, by proposing greater emphasis on language awareness and the development of multilanguage coaching.

## Recommendation 1: Multilingual education

Firstly, we recommend a stock taking of language education and application opportunities, projects and activities that already exist in vocational colleges and
companies. Secondly, an expansion of needs-based in-company and college opportunities should be considered in the context of flexible multilingual education for all. The objective would be to create a data base that is easily accessible to all apprentices, teachers and companies to support apprentices individually in their complex linguistic ambitions.

## Recommendation 2: Language awareness

We recommend conducting an assessment of existing language awareness activities used in vocational colleges and companies, and considering their expansion, to specifically foster intercultural and mediation competences. The aim is to highlight the potential benefits and challenges of multilingualism at work and in society, as well as of language learning, while recognising individual linguistic capacities, and preparing apprentices to work in multilingual teams.

## Recommendation 3: Mobility and exchange

We recommend taking stock of existing language-related mobility and exchange opportunities, with a view to expanding this offer in cooperation with relevant institutions. The aim is to ensure that all apprentices have access to mobility experiences across language regions.

## Recommendation 4: Information and coordination

We recommend regular and consistent coordination of the flow of information between the vocational college, the apprentices and the companies. In the longer term, establishing a coordination hub for multilingual education would be worth considering. Such a hub could coordinate and communicate information about language learning opportunities, projects and exchange programmes regularly and proactively so that not only apprentices, but also all professionals responsible for VET, would be well informed about what is on offer. It could also provide advice and encouragement to apprentices as needed.

## Recommendations for research

Focussing on a specific region, our case study offers insights into an under-researched area. It could serve as a basis for further research across cantonal and national borders. We recommend close cooperation between colleges, companies, educational policy makers and research-relevant institutions with the aim of developing appropriate pedagogical-educational models, specifically with regard to multi-language coaching and language awareness for VET, as well as researching the communication and mediation practices of learners in more or less multilingual work situations.

## A selection of learner perceptions

 from the m-voc case study$38 \%$ see language competences (besides German) as an advantage at work.
$63 \%$ wish to study a new language or improve an existing one in the future.
$29 \%$ study a language in their spare time.
$31 \%$ are learning languages at work.

Between them, $62 \%$ hear 26 languages at work (besides German).
$36 \%$ speak other languages at work (besides German).


## 1 Background and methods

According to the Economic Institute of the Swiss Federal Institute of Technology (Eidgenössische Hochschule, ETH), Switzerland is the most globalised country in the world (KOF, 2021). As a result of globalisation and internationalisation, more and more employees with a migrant background are entering the labour market, not only in Switzerland and the Principality of Liechtenstein, but also in many other parts of the world. This means that, increasingly, people with diverse language skills and backgrounds are coming into contact with each other in the workplace.

In companies, language skills are often seen as resources that can be used effectively at management level and in administration, in particular externally in sales and for customer contact (Coray \& Duchêne, 2017). However, the available literature shows that multilingualism is also relevant internally. For instance, communication can be affected both positively and negatively in multilingual work situations, which may be relevant in relation to team performance (Zander, Mockaitis \& Butler, 2012; Dotan-Eliaz, 2009; Tenzer \& Pudelko, 2015; Kulkarni \& Sommer, 2015). In a globalised economy, employees must increasingly navigate such linguistically complex work situations.

For vocational education and training (VET) in globalised environments such as in Switzerland, and to a slightly lesser extent in the Principality of Liechtenstein, this means that apprentices with and without migrant backgrounds should be trained in line with the current employment landscape. Professor Georges Lüdi (2010, p. 51, our translation) from the University of Basel raised the question as early as 2010 as to whether "sufficient importance is accorded to multilingual education in vocational colleges, especially in courses of a technical nature". While there are official guidelines recommending the needsbased promotion of multilingualism for all occupational groups (WBF, 2017), in 2017 there was still a lack of understanding of the role of multilingualism in technical-industrial occupations, especially with regard to VET programmes (Coray \& Duchêne, 2017). Given the on-going shortage of skilled workers (SRF, 2022; ARD, 2022; The Guardian, 2023), the issue of multilingualism has been gaining significance when it comes to recruiting apprentices for VET programmes (Stamm, 2013).

For some VET programmes, the relevant VET ordinances require the inclusion of English, plus some other languages, in the curriculum (WBF, 2017). In addition, bilingual teaching is recommended in the corresponding VET ordinance (SBFI, 2023). Our case study suggests that these official recommendations to expand language skills in all occupational sectors may have been implemented in a patchy manner, even though "in today's world of work, language skills are necessary far beyond the service sector" (Coray \& Duchêne 2017, p. 67, our translation).

In this report, we provide an insight into the role of multilingualism in VET in the technical sector for the first time. We emphasise that language needs vary greatly between professions, and that there is also disagreement within occupational sectors as to which languages should be targeted for which professions. Our findings in this under-researched area will assist in raising stakeholders' awareness of the potential and challenges of multilingualism in VET. These are primarily aimed at host companies and vocational colleges in the region covered by the case study, interested parties in comparable situations, and researchers. However, the findings are also significant for vocational preparation institutions such as lower secondary schools, career guidance bodies and integration courses ${ }^{1}$ - i.e. our report addresses all professionals with a stake in technical occupations in the broadest sense.

This case study is part of the m -voc project (Multilingualism in Vocational Education). This is considered a transnational case study, as the participants in the project all attend the bzbs in Switzerland but are employed by host companies in both Switzerland and the Principality of Liechtenstein. The project was guided by the following questions:

1) What languages do apprentices bring with them to VET programmes?
2) How do apprentices develop and use their language skills during VET?
3) What role do languages play in the linguistic socialisation of apprentices in different professions?
4) What does appropriate language education look like in VET?
[^1]The results are presented within four overarching themes. These are in turn broken down into subordinate themes, each of which is introduced by a title question and existing literature. Our results then answer that question in relation to our case study.

In the following, we first provide an overview of the current context of language policy before introducing the context of the case study. We then explain the methodological procedure and the structure of the report.

### 1.1 Language policy background

Languages are highly valued in the region of our case study, and this is also underpinned by legislation. Encouraging understanding across linguistic regions using the national languages in Switzerland is enshrined in the Swiss Languages Act (Sprachengesetz, SpG section 441.1, 2021). At the national level, these languages are associated with the internal cohesion of the country, and with providing human capital for the Swiss economy (BfS, 2022). The Swiss Vocational and Professional Education and Training Act (VPETA, 412.10; VPETA, 412.10) states that the training regulations for the individual professions must regulate on the inclusion of a second compulsory language in the curriculum. In the Principality of Liechtenstein, other languages (besides German) are also considered increasingly important for, among other things, communication, conflict resolution and later professional qualifications (Schulamt des Fürstentum Liechtenstein, 2005).

Since a majority of young people in Switzerland choose dual VET (training in the company and at the vocational school), it is appropriate to examine language support and use in VET. Specifically, in Switzerland around two thirds of young people opt for VET with an apprenticeship (WBF, 2017), and in the Principality of Liechtenstein this is around half (Landesverwaltung Fürstentum Liechtenstein, 2021), with apprentices from the Principality of Liechtenstein all attending the relevant vocational colleges in Switzerland.

In addition to the Swiss Vocational and Professional Education and Training Act (VPETA, 412.10), the Vocational and Professional Education and Training Ordinance (Berufsbildungsverordnung BBV, 412.101) and the Federal Act on International Cooperation and Mobility in Education (Bundesgesetz über die internationale Zusammenarbeit und Mobilität in der Bildung, BIZMB, SR 414.51), the promotion of languages during VET is also emphasised in other directives issued by the Swiss government. A recent directive (SBFI, 2022) specifically recommends bilingual education in one Swiss national language and in a second national language or English for all VET branches. The Swiss Conference of Vocational and Professional Education and Training Authorities (Schweizerische Berufsbildungsämter-Konferenz, 2020, our translation) also supports bilingual teaching at vocational colleges, and recommends that the cantons "actively promote and support bilingual teaching in all VET programmes". Foreign language education in VET programmes is important, especially for those apprentices who would like to go on to further education after completing their apprenticeship.

Teaching in the language of the school's location, which in our case study is German, is provided as part of general educational subjects in technical VET programmes. The educational objectives of the language and communication subject are set out in the general education framework curriculum (BBT, 2006) and are based on the Common European Framework of Reference for Languages (CEFR, 2001, see Universität Hamburg, 2004 for descriptors in German).

The majority of education regulations for VET in Switzerland and the Principality of Liechtenstein currently do not include foreign language teaching (for a list of professions with and without foreign language requirements, see WBF, 2017). However, bilingual teaching in the local language of the place in which the school is located and in another national language or English is recommended. In the German-speaking areas of Switzerland, English, as well as French or Italian, are compulsory subjects as part of the vocational baccalaureate ${ }^{2}$, which is an option for all VET programmes, even those with no compulsory English. According to a report by the Swiss State Secretariat for Education, Research and Innovation (SBFI, 2017) on language acquisition in Swiss VET, foreign languages acquired in primary school should be retained, promoted or expanded (WBF 2017). Although additional languages (e.g. English, French) are explicitly mentioned in the Liechtenstein compulsory school curriculum (Schulamt des Fürstentums Liechtenstein,

[^2]2005), they are not included in the corresponding Vocational and Professional Education and Training Act, except in relation to preparing people with " language difficulties" for VET (meaning in German) (VPETA. 412.0, no. 103, art. 11).

While the SBFI report recommends that "schools and host companies [in Switzerland] should intensify their language education and promote a culture of multilingualism and mobility" (WBF, 2017, p. 3, our translation), education policy often does not recognise languages acquired outside compulsory school as language assets (see also Riel, 2014 for similar findings from Germany). It was also noted that mobility appears to play a minor role in VET. In this regard, Movetia, the Swiss National Agency for Exchange and Mobility, states in their (2020) report that in the canton of St. Gallen (where the case study was conducted), only $\mathbf{1 . 2 \%}$ of young people in VET took part in a national or international exchange in the 2018 academic year, compared to $31 \%$ of young people in general education at upper-secondary level.

### 1.2 Context of the case study

The linchpin of this case study is the Berufs- und Weiterbildungszentrum Buchs Sargans (bzbs). In this vocational college, we surveyed apprentices, and contacted associated host companies and professionals in Switzerland and Liechtenstein to share our findings and gain feedback.

Bzbs is a vocational college in eastern Switzerland, located in a rural region, with seats in Buchs, Salez and Sargans. The catchment area for apprentices and students includes the eastern part of eastern Switzerland and the Principality of Liechtenstein. The cantonal school is composed of the VET department, which is responsible for the education of 3000 apprentices in 26 different professions, and the continuing education department, where 2000 students continue their professional education every year. At bzbs, students are also able to take courses to transition between lower and upper-secondary level, and to complete the vocational baccalaureate during or after their apprenticeship.

Our case study concerns VET education at the Buchs site, where about one third of the apprentices are employed by companies in the neighbouring Principality of Liechtenstein. At Swiss vocational colleges, which apprentices attend one or two days a week during their VET, teaching is usually conducted in the local language. In five of the 18 apprenticeships offered at the Buchs site, English and/or French is a compulsory subject. For the other VET programmes, foreign language subjects are only compulsory for those students who pursue the vocational baccalaureate.

In addition to the foreign language provision envisaged in some VET courses, bzbs offers the following language courses and mobility opportunities.

- Evening courses, as part of bzbs Continuing Education programme, in German, English, French, Spanish, and Italian (at a discounted price for apprentices).
- English and French support classes to prepare for language certificates (at a discounted price for apprentices).
- French and English workshops: an opportunity for apprentices who want to complete their homework at school and/or benefit from the support of a teacher.
- Bilingual classes in commercial VET programmes: Bilingual education in German and English (pilot project limited until July 2023, will not be continued). Another bilingual pilot project for Mechanical Engineers and Design Engineers was also discontinued.
- CLIL (Content and Language Integrated Learning): individual teachers carry out CLIL lessons on their own initiative.
- Apprentice mobility with vocational colleges in Tampere, Berlin and Prague in cooperation with Movetia (Swiss Agency for the Promotion of Exchange and Mobility in the Education System)
- Preparatory courses for the vocational baccalaureate (bzbs Continuing Education) on Saturday and Wednesday evenings (German, French, English)

Opportunities accessible via other institutions:

- Voluntary foreign language placements in English and French-speaking areas
- Professional internships in Dublin for apprentices of the Swiss mechanical and electrical engineering and metals industry
- Mobility projects go-to-Europe and MOJA for learners residing in the Principality of Liechtenstein (Office for Vocational Training and Career Guidance, Principality of Liechtenstein)


### 1.3 Methodical approach

The results presented in this report were elaborated in two phases and with reference to the key questions stated in the introduction. The project was approved by the University of Exeter Ethics Board.

Phase 1: We conducted a survey and interviews with apprentices at bzbs in February and March 2022 on the following topics:

- Their own language skills and interest in language learning
- Language practices at work
- Perceived language-related expectations of host companies and vocational trainers
- Evaluation of language learning opportunities in the host companies and at the vocational college

The data collection resulted in 674 responses to the online survey (Likert scales and open questions) and eleven interview transcriptions from apprentices. We conducted a descriptive analysis of the quantitative data (Likert scale) and published these as initial findings in an interim report (Meier \& Styger, 2022) on our website. This interim report was used as the basis for phase 2.

Phase 2: In autumn 2022, we presented and discussed the interim report with stakeholders in companies and vocational colleges, and with educational policy makers. We invited these stakeholder groups to comment, again in an online survey, on the following topics:

- Their own links to language education
- Multilingualism in host companies
- Apprentices' language practice
- Language education at work and vocational college

The online survey resulted in 86 responses (Likert scales and open questions). These include 39 participants from host companies, 22 participants from vocational colleges and 25 participants with links to several and/or other areas.

Additionally, in winter 22/23 we received informal feedback following discussions and presentations of the findings from phase 1 with various regional and international stakeholders (host companies, professionals, teachers, universities, etc.).
Quantitative analysis: The statistical analyses were developed using SPSS (statistical data analysis software). Data in the form of Likert scales were subjected to descriptive, quantitative analysis on the one hand. This means that results are expressed as a percentage of participants who, for example, rather/totally agreed or rather not/not at all agreed with an opinion, and are presented in graphs. Additionally, we combined similar questions into a multi-item scale or construct (e.g. perception of a multilingual reality, as described in Chapter 3). In this process, questions (or items) on a topic were grouped together to assess the characteristics of the perception. The reliability of these constructs (i.e. whether these questions measure similar matters) was confirmed by factor analysis. We used graphs to illustrate the respective characteristics and perceptions. In order to determine whether the apprentices' home language use relates to their perceptions of language realities in the workplace in a statistically significant manner, we also calculated correlations, which are reported in section 3.1.

Qualitative analysis: The qualitative data, i.e. the responses to the open questions in the surveys (phases 1 and 2) and provided in the interviews (phase 1), were analysed thematically using NVivo (software for analysing text data). A thematic analysis means that quotations from the statements made by participants are coded by themes and sub-themes. This creates a systematic overview of the statements made in the sample. Initial themes were predetermined by existing research (deductive), and further themes, including some new ones, were developed during the analysis (inductive), as described in Chapters 3 to 6.

## When reading this report, please note:

- that we refer to apprentices according to the profession they are studying. This means, for example, that we refer to apprentices of the bricklaying trade as Bricklayers. Where we refer to trained professionals or other stakeholders of the profession, we state this explicitly.
- that official directives and regulations usually refer to German in the general sense, while German varieties such as Swiss or Liechtenstein dialects are rarely explicitly mentioned. However, as can be seen from this report, standard German or high German (as a written language, as a language of instruction or as a school subject) and locally spoken German dialects play distinct roles
in VET. We address these differences primarily when reporting qualitative results. However, we, and our participants, also refer to German in a general sense, without making this explicit distinction.
- that example quotes from learners and stakeholders we use to illustrate our themes have been translated from German and German dialect. The original quotes can be found in the German report, available from our Website: https://sites.exeter.ac.uk/m-voc/reports-and-surveys/.
- that the name of the vocational college was changed from Berufs- und Weiterbildungszentrum Buchs (bzb) to Berufs- und Weiterbildungszentrum Buchs Sargans (bzbs) in August 2022. That is why both bzb and bzbs sometimes appear in the report.
- that further analyses will be published in academic journals in 2023-24. (see m-voc website: https://sites.exeter.ac.uk/m-voc/reports-and-surveys/) .


### 1.4 Structure of the report

Chapter 2 introduces the participant groups from phase 1 (apprentices) and phase 2 (other stakeholders). This Chapter refers to question 1 and provides information about the languages apprentices bring to their education and use in their private lives. It further provides information about the participating stakeholders who assisted us in interpreting the apprentices' responses.

Chapter 3 addresses questions 2 and 3 by reporting on the linguistic realities that learners experience in their workplaces, and how learners hear and/or use their language competences in the workplace to support internal and/or external communication, as well as to mediate within one language (intralingual) or between several languages (crosslingual).

Chapter 4 presents findings on attitudes towards languages prevalent in various groups. This Chapter includes information on interest in languages and language learning, as well as advantages and disadvantages associated with multilingualism at the personal and societal level. Attitudes are an important aspect of apprentices' language socialisation in VET and insights from this Chapter also help to answer question 3.

Chapter 5 covers participants' evaluation and opinions on the language-related aspects of the VET curricula and other language learning opportunities, as well as challenges mentioned by the participants.

Chapter 6 provides a discussion of our findings alongside existing research and regulatory guidance. This leads to a number of recommendations for companies, professionals responsible for VET in the case study region, as well as for research.


## 2 Participants

In the phase 1 apprentice survey, we had a high response rate (99.3\%) and many apprentices voluntarily added detailed comments to their answers. Furthermore, many teachers generously offered us 30 minutes of their teaching time for the survey. This may indicate that there is an interest in the topic of languages in general, and multilingualism in particular, among apprentices and teachers in the surveyed occupational groups.

Our work was also well-received in the presentations and discussions with other professionals responsible for VET in phase 2. At a presentation of our results from phase 1 in London with representatives from industry, business and education policy, a professional responsible for VET from a large industrial company described our presentation as a "wake-up call", as the topic of multilingualism in VET has received little attention in the UK up to now. As a result of our project, a new network, Languages in Vocational Education (LiVE), was founded with colleagues from universities in Norway and Denmark, who are also researching this topic, with the goal of further developing research on multilingualism in VET at an international level (LiVE, 2023). Based on this feedback and development, there appears to be a strong interest in the topic of multilingualism in VET.

### 2.1 Apprentices (phase 1)

The findings from the first phase are based on responses from $674 \mathrm{VET}^{3}$ apprentices across eleven different occupations. Eleven of the learners also took part in an interview in addition to the survey. A total of 682 apprentices had the opportunity to take part in this survey during class time and 677 completed it (response rate $99.3 \%$ ). Participation was voluntary, and the alternative activity of a reading comprehension task on the topic of multilingualism was provided, which was chosen by five apprentices. Three responses could not be considered because they were not reasonable and inappropriate. In Table 1, the participants are listed, including information on their chosen VET careers, the respective qualification level according to the European Qualification Framework ${ }^{4}$ (SBFI, 2015), and whether they only took part in the online questionnaire or if they were also interviewed.

Table 1: Apprentice sample group: Occupations and data collection

| Data collection response - spring 2022 | Survey | Interview |  |
| :--- | :--- | :--- | :--- |
| Professions (VET) | NQF EQF $^{4}$ | 29 | 1 |
| Information Technologist | 5 | 94 | 4 |
| Design Engineer | Categorisation pending | 81 | 2 |
| Mechanical Engineer Profile G | Categorisation pending | 72 | 1 |
| Mechanical Engineer Profile E | Categorisation pending | 7 |  |
| Metal Builder | 4 | 108 |  |
| Licensed Electrician | 5 | 43 |  |
| Painter | 4 | 80 |  |
| Carpenter | 4 | 66 | 1 |
| Joiner | 4 | 52 | 1 |
| Bricklayer | 4 | 42 | 1 |
| Hairdresser | 4 | $\mathbf{6 7 4}$ | $\mathbf{1 1}$ |
| Total |  |  |  |

(for official names of VET programmes in English and German: see Glossaries)
No reliable statements could be made based on a small group of Metal Builders ( $n=7$ ). This group was, therefore, not included in the statistical analyses. However, their open comments were included in the qualitative analysis.

[^3]
### 2.1.1 Language skills of the apprentices

The learners reported that they had, on average, competences in three languages (minimum 1, maximum 7). Across the sample, $25.9 \%$ said that they could use four or more languages at various levels. This figure was highest for Hairdressers (41.5\%) and Bricklayers (33.3\%).

Due to their previous language education in compulsory school, we expected apprentices to have skills in the languages taught at school, namely German, English and French, when they started their VET programmes. Overall, $86.2 \%$ of participants reported advanced German and High German skills, $4.9 \%$ reported intermediate German skills and 0.4\% beginner-level German skills. 13\% rated their English to be at an advanced level, $56.5 \%$ at an intermediate level, and $7.67 \%$ at a beginner level. $0.6 \%$ state that their French was at an advanced level, $10.3 \%$ at an intermediate level and $38.3 \%$ at a beginner level. This reflects the language policy in large parts of German-speaking Switzerland, where German is used as the language of instruction, English is introduced as the first foreign language at primary level and French as the second foreign and national language. In the Principality of Liechtenstein English is taught to a similar extent, whereas French plays a lesser role.

In addition to the languages taught at compulsory school, the 674 apprentices surveyed also indicated knowledge of other languages due to migration and private language learning experiences. In total, this group reported competences in 50 languages (Figure 1) in addition to several different dialects or language varieties.

Figure 1: Mentioned language competences at various levels


### 2.1.2 Language use at home

The majority of apprentices (85\%) used German daily or almost daily at home, and around a quarter (24\%) used a different language. That means that $\mathbf{1 5 . 4 \%}$ used German and another or several other languages on a daily or almost-daily basis at home. Based on the information provided by the apprentices, it was mainly Mechanical Engineers profile G (50.6\%) and Hairdressers (42.9\%) who stated that they spoke another language at home on a daily or almost daily basis (Figure 2).

The proportion of young people (aged 15-24) throughout Switzerland who habitually speak more than one language was $49 \%$ in 2019 (BFS, 2019). Although we cannot directly compare our results with the BFS figures because the questions asked are different, we assume that our sample of apprentices is rather less linguistically diverse than might be the case in other cohorts, such as in cities like Zurich or Geneva. However, our group of participants could possibly be compared with other rural regions in eastern Ger-man-speaking Switzerland.

Figure2: Languages spoken with family


### 2.2 Other stakeholders (phase 2)

The objective of the second phase was to discuss the results collected through the apprentice survey with other stakeholders in order to build up a more comprehensive picture. In this phase, we received two types of feedback: formal feedback through a second questionnaire for other stakeholders, which was answered by 86 people (see Table 2); and informal feedback through discussions and presentations with over 150 people (see Error! Reference source not found.).

### 2.2.2 Professionals responsible for VET

Following the publication of our interim report and a number of presentations, 86 people completed the online questionnaire, of which 82 completed it in full ( $100 \%$ ) and four completed $59 \%$. The participants in this group work professionally in three countries: 47 in Switzerland, mainly in connection with the bzbs (vocational college) and associated host companies, 21 in the Principality of Liechtenstein (mainly in host companies) and 18 in Germany (mainly at vocational colleges). Other participants work in overlapping or multiple areas of responsibility, and a small proportion (Other roles) e.g. as secondary teachers or at universities (see Table 2).

Table 2: Stakeholders, questionnaire phase 2

| Group | Switzerland | Liechtenstein | Germany | Total |
| :---: | :---: | :---: | :---: | :---: |
| Working in host company | 22 | 16 | 1 | 39 |
| Working in vocational college | 14 | 0 | 8 | 22 |
| Multiple roles | 3 | 2 | 2 | 7 |
| Other roles | 7 | 2 | 7 | 16 |
| Unclear | 1 | 1 | 0 | 2 |
| Total | 47 | 21 | 18 | 86 |

No meaningful comparison between the countries can be made, given the composition of the groups (see Table 2). With the numerous and sometimes extensive comments we received through the survey, these stakeholders made an important contribution to this study. The qualitative comments offered provided us with information on opinions and experiences that may exist across the technical VET sector. They are
also helpful in understanding opinions, opportunities and challenges that need to be considered when interpreting our results. Based on this part of our survey, we are, however, unable to make any statements as to how widespread respective opinions are in the regional VET sector, as the number of participants in phase 2 is too small. Therefore, the quantitative results of the survey, which we also evaluated using Likert scale data, are of little significance and are not included in our results.

### 2.2.3 Other stakeholders

We presented and discussed the initial findings from phase 1 with companies, with individual professionals in the field, at the Berufs- und Weiterbildungszentrum Buchs Sargans (bzbs), at universities, and at a conference of professionals responsible for VET in London (Westminster Conference), as shown in Table 3. The informal feedback received in this way helped us to interpret the results from phase 1 , and to develop recommendations for practice. We have considered the statements from this phase in all parts of our findings.

Table 3: Discussion of initial results from phase 1 with companies and other stakeholders (phase 2)

| Date | Institution/ Professional | Field of activity | Participants (anonymised) |
| :---: | :---: | :---: | :---: |
| Oct. 2022 | University of Exeter | School of Education | 8 Researchers |
| Nov. 2022 | Westminster Conference, London | Knowledge exchange on the topic VET in the UK between research and practice | 76 Vocational college teachers, companies and other professionals responsible for VET |
| Nov. 2022 | University Malmö | Faculty of Education that offers an MA in VET | 6 Researchers |
| Dec. 2022 | Norwegian University of Science and Technology | Faculty of Education that offers a course in VET | 10 researchers |
| Dec. 2022 | Berufs- und Weiterbildungszentrum Buchs Sargans (bzbs) | Vocational college <br> National Office for VET and Career Guidance | 43 vocational college teachers <br> 2 bzbs management <br> 1 Representative of Office for VET and Career Guidance (Principality of Liechtenstein) |
| March 2023 | Carpenter 1 | Temporary work in various carpentry firms | 1 qualified employee |
| March 2023 | Painter 1 | Painter and decorator firm with 25 employees and 3 apprentices | 1 Manager |
| March 2023 | Painter 2 | Painter and decorator firm with 1 employee and 1 apprentice | 1 Manager |
| March 2023 | Licensed Electrician | Government employee, formerly had own electrical company with apprentices, government employee | 1 formerly manager of own firm |
| March 2023 | Hairdresser 1 | Hairdresser Salon (3 employees) | 1 qualified employee |
| March 2023 | Hairdresser 2 | Hairdresser Salon (10 employees) | 1 qualified employee |
| March 2023 | Joiner 1 | Apprenticeship as Joiner, currently doing military service | 1 qualified employee |
| March 2023 | Joiner 2 | Apprenticeship as Joiner, currently doing additional supplementary apprenticeship as draughtsman/draughtswoman | 1 qualified employee |
| March 2023 | Information Technologist | Apprenticeship in international industrial company, currently employed in hospital as medical Information Technologist | 1 qualified employee |

## 3 Linguistic realities

In the dual VET system, there are informal and formal opportunities to use and develop languages in the vocational college and in companies. At work, for example, this happens "in contact with employees who speak other languages or with customers and suppliers" (Lüdi, 2010, p. 52). However, our results show that these learning opportunities are not available in all companies, as was also noted by Lüdi in 2010.

In this Chapter, we show that apprentices in our case study have very different perceptions of their professional reality in terms of languages, depending on the context; namely as being more monolingual German, international English or multilingual oriented work contexts. Despite these differences, the local language (German and German dialects) is considered (rather) important regardless of the language orientations perceived. The results described here are based on the subjective feelings and thoughts of the apprentices, which have not been supplemented by objective observations in workplaces.

### 3.1 Perceived linguistic realities

We know that the local language or dialects are associated with operational, social and cognitive functions at work (Filliettaz, 2022). In other words, language is used to get things done (operational), to interact with others (social) and to remember and learn new things (cognitive). A lack of competence in the local language is associated with barriers to social interaction, among many other disadvantages (Caldas \& Cornigans, 2015). Our analysis confirms the importance of local language in all working and educational contexts - in our case study these are German or local German dialects. Coray and Duchêne (2017) note that companies expect and demand that employees know the local language for productivity and safety reasons. According to our study, however, it is not only the local language, as described by Filliettaz (2022), but also other languages besides German and German dialect, which assume operational, social and cognitive functions.

Due to language education in compulsory school (German, English, French) and the migrant background of many apprentices, multilingualism is widespread among young people in German-speaking Switzerland and Liechtenstein. However, according to Lüdi (2010), the language expectations of the world of work do not correspond to the language repertoires that apprentices bring with them into work. English and French are often expected; however, other language skills that employees bring to work and the mediation work they do, for example on construction sites, are often not recognised (Lønsmann \& Kraft, 2015). However, some companies also track their employees' language skills in order to draw on them when needed - for example in airport baggage sorting departments (Duchêne, 2011).

However, such individual multilingualism cannot be used in every company (Lüdi, 2010), as some companies are more monolingual and others are more multilingual. This is also true for the apprentices in our case study, who were employed in companies of various sizes in Eastern Switzerland and the Principality of Liechtenstein, some of which have a regional, others a national and/or international orientation.

On the overarching theme of perceived linguistic realities, we use our findings to answer a number of relevant questions about the role of the German language in the workplace, and about perceived monolingual and multilingual realities at work.

### 3.1.1 What role does German play at work?

This question is answered based on:

- Responses to questions $14.1,14.4,16.1,18.1$ in the questionnaire for apprentices (phase 1)
- 81 comments (apprentices) on German as a main language (phase 1)
- 5 comments (other stakeholders) on German as a main language (phase 1)
- Informal feedback from other stakeholders (phase 2)

Short answer: As would be expected, German and German dialects were the most significant languages for the apprentices in our case study in companies across all occupational categories. German and German dialects were used as the main means of communication in most - but not all - workplaces. According to the participants, German and related dialects were either used exclusively in companies or in addition to other languages. German was generally expected, but not necessarily at a high level.

In the survey, $91 \%$ of all apprentices not only reported having advanced or intermediate skills in German and/or High German, but they also stated that they heard (96\%) and spoke (99\%) German and/or a German dialect at work daily or almost daily.

We combined four similar questions on German from the apprentice survey into a new multi-item scale ${ }^{5}$, in what we term the German-is-important orientation (see Figure 3). This scale suggests that German (including standard German) played an important role in the workplace for almost everyone. On average, the result on the German-is-important scale is clearly above the 'neither-nor' point (3.0) for all occupations. This means that, on average, apprentices in every occupation agreed that German was important. In this case, a correlation analysis does not reveal a statistically significant connection between family language background and the perceived use of the German language as a means of communication in the workplace. ${ }^{6}$ Whether German was perceived as important is, thus, not related to the language backgrounds of the learners.

Figure 3: German-is-important assessment (multi-item scale)


The thematic analysis of the qualitative data revealed interesting nuances regarding the theme of German. Reference was made, on the one hand, to the role of German dialects in contrast, or complementary to, Standard German, and on the other hand, to the proficiency level in the German language. The theme of German as the main language also revealed that, as described in 3.1, German was used and perceived differently both internally and externally. Although German was heard everywhere, the qualitative analysis showed that there were host companies where, for example, English (e.g. Design Engineers) or Italian (e.g. Bricklayers) was mainly spoken.

According to responses on the theme of German as the main language, there were different opinions on the expected level of German. For instance, there were apprentices who assumed that managers expected good German. In phase 2, this view was confirmed by representatives from host companies, in that good written German was seen as a necessity for Mechanical Engineers, for example. Informal feedback from other stakeholders in phase 2 further confirmed that knowledge of German was indeed expected and required, although there were diverging opinions on the importance of knowing the German dialect. Some argued that while it is not necessary for German to be perfect in every case, standard German, as well as dialect, was an important means of communication as a lingua franca. German was also considered important by the apprentices for communication among employees and with customers.

[^4]
## German as the main language

"In my opinion, German is important in working life because it makes communication much easier." (Mechanical Engineer profile G)
"In our profession, German is an important language." (Hairdresser)
"Well, German is important, I use it every day. When I go to work, when I talk to most of the staff, I speak in German, of course". (Design Engineer)

## Written German is more important than English

"In our company, Mechanical Engineers don't need English. Rather, better German, especially written German." (Representative of host company)

## High German useful as a lingua franca

"Since in my job, you sometimes work in construction, where many different nations meet and [who] don't speak German well, it's an advantage if you can communicate [with them] in High German." (Joiner)

## German and dialect facilitate customer contact

"Swiss German is extremely important for us, because communication with customers is much more relaxed than if we had to speak High German." (Carpenter)
"As a painter, it is important to be able to talk to customers. If you don't know German well, it's difficult to discuss the work or write it down." (Painter)
"Because every customer who comes into my shop should feel comfortable and understand something too. So my opinion is that you should speak German, no matter where." (Hairdresser)

### 3.1.2 Is the work situation perceived as monolingual German?

This question is answered based on:

- Responses to questions $16.3,16.4,18.2$ in the questionnaire for apprentices (phase 1)
- 24 comments (apprentices) on the theme of monolingual reality (phase 1)
- 7 comments (other stakeholders) on the theme of monolingual reality (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: There were a small number of companies and some professions in which every-day working life was perceived to be monolingual (exclusive use of German and German dialects). In these companies there were no, or hardly any, opportunities to use or learn other languages besides German, which was also associated with disadvantages for respondents' professional future. While this monolingual reality was experienced in all occupational groups, there were also apprentices in all occupational groups who did not perceive such a reality.

Overall, $27 \%$ of learners strongly/rather agreed that the exclusive use of German (standard and/or dialect) was preferred in their company, while $47 \%$ strongly/rather disagreed.

We combined three questions into a multi-item scale to determine how common a German-only orientation ${ }^{7}$ (including German dialects) is. Our quantitative analysis of the multi-item scales shows differences between occupational groups and professional contexts with regard to this question. The average overall is in the do-not-agree segment of the scale (below 3), which means that apprentices were generally less likely to observe this orientation. In contrast, over half of carpenters (57\%) perceived this German-only orientation, while only $26 \%$ of Carpenters disagreed with this statement. On average, Carpenters and Joiners were the most likely to find that their companies had a German-only orientation (see Figure 4). At

[^5]the other end of the scale are Design Engineers and Information Technologists, who on average tended to disagree that there was a German-only orientation in their company. But also in this case, $13 \%$ of Design Engineers tended to agree with these statements, which indicates that there may be trends but no sector-wide language orientations. The other professions range between neither/nor (3) and (rather) disagree (1) on average. This means that this German-only orientation was more prevalent in some professions than in others, but there were apprentices in all professions who did not perceive a monolingual reality of this kind.

Figure 4: German-only orientation (multi-item scale)


The quantitative findings reveal which occupational groups were most likely to have a German-only orientation. However, they also illustrate that, to a certain degree, this orientation can occur in all occupational groups.

A correlation analysis reveals a statistically significant negative correlation between an apprentice's home language background and the perception of a monolingual reality in the workplace. This means that the more frequently apprentices spoke an additional language at home, the less likely they were to perceive a monolingual reality in the workplace, ${ }^{8}$ This raises the question of whether apprentices who speak a language other than German in their home environment perceive several languages in the workplace, while those who have a German-speaking family background are more likely not to perceive additional languages in the same context.

The comments on the theme of monolingual reality show that there were companies where a monolingual German reality was perceived, and where there were no opportunities in the company to use or learn additional languages besides German, which, incidentally, was associated with disadvantages for the future. Feedback from the companies during dissemination in phase 2 confirmed that in some companies (painting, carpentry, joinery) there was a German-only orientation.

The following quotes from the data collection illustrate the ways in which work situations in the host companies were perceived as monolingual German.

## Monolingual German reality

"We are a team of people who only speak Swiss German." (Carpenter)
"Everyone here really communicates in Swiss German or German and it works really smoothly for us." (Mechanical Engineer profile G)

[^6]"In my company, no one knows a second language. We only communicate in German." (Licensed Electrician)

## No opportunities to use or learn additional languages

"The staff mainly speak Swiss German (some High German). Communication in foreign languages is not possible." (Vocational trainer and vocational college teacher)

## Potential disadvantages for the future

"German is the only language spoken everywhere, which simplifies many things, but also leads to deficits in later working life." (Joiner)

### 3.1.3 Is the work situation perceived as multilingual?

This question is answered based on:

- Responses to questions 8.1, 10.2, 10.4 in the questionnaire for apprentices (phase 1)
- 120 comments (apprentices) on the theme of multilingual reality (phase 1)
- 2 comments (other stakeholders) on the theme of multilingual reality (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: In the workplaces, 26 languages were observed, primarily German and English, as well as a number of other languages. There are companies and professions in which apprentices perceived day-today work as multilingual and multicultural, and others for which this was less the case. This means that apprentices may hear, speak and learn languages formally or informally in some workplaces, but less so, or not at all, in others. Knowledge of several languages was also described by some as essential for communicating with people who do not speak German.

In the questionnaire, $62 \%$ of the learners stated that they heard several languages besides German at work, and $31 \%$ stated that they also spoke at least one additional language (between daily and 2-3 times a month).

Figure 5: Multilingual reality (multi-item scale)


We combined three questions on the use of languages at work from the apprentice survey into a multiitem scale ${ }^{9}$ to understand whether languages besides German were used at work, i.e. whether or not the workplace was perceived as a multilingual environment (Figure 5).

[^7]As can be seen in Figure 5, a pattern also emerges here from a statistical point of view. It is striking that Carpenters and Joiners on average were the least likely to agree that their experience of day-to-day work is multilingual. In contrast, Bricklayers (3.9) were the most likely to perceive their working environment as multilingual. On average, the other occupations cluster around the neither-nor point (3).

A correlation analysis reveals a statistically significant relationship ${ }^{10}$ between language use at home and the perception of a multilingual reality at work. In other words, the more often apprentices spoke an additional language at home, the more likely they were to perceive their workplace as being multilingual.

In an open question, the apprentices surveyed gave a total of 26 languages that they heard and/or spoke at work in addition to German (Error! Not a valid bookmark self-reference.). English was mentioned most often. Italian, Albanian, Portuguese, Spanish, French, etc. were also mentioned. This linguistic diversity in the companies was also illustrated in informal feedback (phase 2) by a manager from a painting company; where 25 employees spoke a total of eleven different languages.

Figure 6: Languages noted as being heard or spoken in companies

## English ${ }_{\text {Italian }}$ <br>  <br> 

The apprentices' comments illuminate this multilingual orientation. There was a fundamental perception of companies or teams as multilingual and multicultural, where other languages can be learned formally and informally. There was also awareness that additional languages were necessary to communicate with people who did not know German.

9
The following quotes from the data collection illustrate the ways in which work situations in the host companies were perceived as multilingual.

The company and team are multilingual and multicultural
"We are a multicultural team." (Hairdresser)
At work I hear/speak "English and in my work area I often hear Spanish. But I have also heard French, Finnish and Asian languages." (Design Engineer)

At work I hear "Croatian, Albanian, Spanish, Portuguese, High German, Swiss German, Czech." (Bricklayer)
"Because it is normal for many different languages to be spoken in the construction industry." (Licensed Electrician)

[^8]
## Other languages can be learned formally and informally

"the company offers quite good [language] courses on all kinds of things that have to do with us and our company. From English courses to Japanese and all the cultural stuff, it's explained there." (Design Engineer)
"But on the construction site, I would say I learned Italian". (Bricklayer)
"English [is an advantage. There is an] exchange programme in our company during the apprenticeship, in America lasting 3 months". (Vocational trainer)

## Other languages for communication with people who do not know German

Additional languages are "necessary, not everyone in the company knows German." (Design Engineer)
"German and Italian, because the Italians don't know German." (Painter)

### 3.1.4 Are language skills expected and valued by host companies?

This question is answered based on:

- Responses to questions $16.2,14.5,16.6,16.6$ in the questionnaire for apprentices (phase 1 : quantitative)
- 59 comments (apprentices) on the theme of company attitudes towards languages (phase 1 : qualitative)
- Informal feedback from other stakeholders (phase 2)

Short answer: The apprentices' perceptions of whether the multilingual skills of the apprentices were recognised in the companies varied greatly. Learners were of the opinion that some companies seemed to actively seek out the relevant information, while others were not interested in their language resources. Similarly, while some apprentices were happy that no other languages were expected besides German; there are some who regretted that their language skills were not recognised.

According to the questionnaires, $84 \%$ of learners strongly/rather agreed that employers expected good German skills, and $19 \%$ strongly/rather agreed that additional language competences were also expected. In the quantitative analysis, we investigated to what extent apprentices believed multilingualism was valued or expected in their host companies. To do this, we combined four questions related to this topic into a multi-item scale ${ }^{11}$ (see Figure 7).

Similarly to the perception of a German-only environment in the host companies (see 3.1.2), the group of Carpenters and Joiners again strongly/rather disagreed that language skills were valued in their companies, while Design Engineers and Information Technologists on average tended to agree that such skills were valued in their companies.

Here, the correlation analysis reveals a statistically significant relationship between the family language use and the perception of whether multilingualism was valued at work. That is, the more frequently apprentices spoke an additional language at home, the more likely they were to feel that multilingualism was valued. ${ }^{12}$

The apprentices' comments confirm that there were companies that expected and valued personal multilingualism and that there were those where this was less, or not at all, the case. This means that in our sample there were apprentices who believed that companies were aware of their language skills and those for whom the opposite was the case. Accordingly, we identified variation in terms of workplace awareness of the language skills that apprentices brought with them or were able to develop through work. Some apprentices felt that their language skills had professional potential, which was not recognised.

[^9]Figure 7: Multilingualism is valued (multi-item scale)


Informal feedback from other VET stakeholders confirmed this very varied picture. Some companies reported that they were well aware of the language resources of their apprentices, that they used them in a targeted manner, and/or that they would like to record them systematically in the future. Other companies only focussed on German language skills.

59
The following quotes from the data collection illustrate the extent to which host companies were perceived to expect and appreciate language skills.

## Multilingualism is/is not valued

"At my workplace they like [it] when you can speak more languages." (Bricklayer)
"Because the bosses don't care what language you speak as long as you can speak good German." (Carpenter)

## Multilingualism is/is not expected

"In our company English language skills are a minimum requirement, as we are an international company and therefore have to communicate with people in several countries in different languages". (Information Technologist)
"At the company [...] having language skills is not required." (Bricklayer)
"I think it is good that [additional languages] are not required, otherwise I would not have joined this company." (Carpenter)

## Companies are/are not informed about the apprentices' language skills

"Yes. The question has been asked more than once. Before the apprenticeship started. And after that, at some point we had a survey. That's right. So, our company is extremely globalised and extremely focused on multilingualism and stuff like that. And then they also asked..." (Design Engineer)
"Often people don't even notice that you can speak another language." (Hairdresser)

## Language potential is not recognised or used

"It's so funny to us that we actually know so many languages, but we almost never use them. [...] But I wish I could use it [English] more in my job. So, I would say that the school is not the problem, it's the practical application in the host company." (Mechanical Engineer profile E)
"For example, I would have an advantage now if the company did something in [my country of origin, anonymised]. If they were trying to build something [there], then they could possibly send me. I know the language." (Mechanical Engineer profile G)

### 3.2 Use of languages at work

Studies from the service sector show that languages - when people need to communicate with each other - are a fundamental resource in the work process (Cameron, 2000; Duchêne, 2009). In multilingual teams, the work process is often multilingual and unregulated: Lüdi (2010, p. 53, our translation) describes how people in multilingual work situations often have a "virtuoso way of handling two or more languages", especially in oral interactions. Other studies have found that companies can benefit from employees speaking additional languages, e.g. by having employees mediate between managers and colleagues who do not speak the local language or do not speak it well (Coray \& Duchêne, 2017). Mediation or conciliation skills such as these also feature in the Common European Framework of Reference for Languages (CEFR 2020). In it, mediation is described as a social and cultural process in which "one is less concerned with one's own needs, ideas or expression than with those of the party or parties for whom one is mediating" (CEFR, 2020, p. 91).This requires the parties to have "well-developed emotional intelligence, or an openness to develop it, in order to have sufficient empathy for the viewpoints and emotional states of other participants in the communicative situation" (CEFR, 2020, p. 91, our emphasis). Mediation skills, as described by the CEFR, ideally allow for successful communication and collaboration even in delicate multilingual situations where tensions may arise.
Our study shows in which ways the respondents in technical occupations described the use of their linguistic repertoires in their workplace to mediate between languages. Whether language skills were used for mediation appears to depend on how multilingualism was perceived and whether learners were open or willing to engage linguistically with another person as described by the CEFR (see Chapter 4).

With regard to the overarching theme of the use of languages at work, our findings ask and answer questions about the internal and external use of languages and about communication between people with different languages.

### 3.2.1 How are language skills used in host companies?

This question is answered based on:

- 141 comments (apprentices) on the theme of external language use (phase 1)
- 33 comments (other stakeholders) on the theme of external language use (phase 2)
- 128 comments (apprentices) on the theme of internal language use (phase 1)
- 45 comments (other stakeholders) on the theme of internal language use (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Apprentices used additional languages besides German in internal and external interactions: Internally with employees, colleagues from other departments and managers, and externally with customers, suppliers and visitors. Additionally, understanding occupation-specific terms that were used internally was associated with quality assurance.

The ways in which language skills were used in the companies seemed context-specific, therefore we answer this question using only qualitative comments, which give us a deeper insight into the apprentices' working environments, and introduce the actors with whom the apprentices used their language skills, both within and outside the company. In addition to using their everyday language, apprentices also used occupation-specific language or jargon.

According to our case study, additional languages were needed in a variety of external work settings: when working with foreign companies, at external work sites (construction sites, installation locations) or in different language regions. They were used when interacting with external actors, mainly customers, as well as representatives of other company units, visitors and suppliers. According to the comments, German, English and also other languages were used both orally and in writing.

Internally, language skills are also used in many different aspects of work, such as projects, events and meetings. These languages are used verbally and in writing when communicating with internal actors, i.e. with employees and managers in the host company and on site, as well as at other locations. The apprentices highlighted in particular the occupation-specific language and terminology they encounter
internally, especially that in English. The young people interviewed also reported that an understanding of occupation-specific terms facilitated work in a range of professional fields and was relevant to quality assurance, as it could reduce errors, among other things. These technical terms occurred in many different formats, e.g. on cosmetics bottles, plans, drawings and documents, but also in software applications, or in relation to online help desks. The importance of subject-specific English skills was also confirmed in the discussions with professionals in phase 2.

## 59

The following quotes from the data collection illustrate how language skills are used in host companies.

## External work areas

"We are an international company and therefore [we] have to communicate with people in several countries in different languages". (Information Technologist)
"English is often spoken by staff from other locations." (Information Technologist)
"I work on a construction site, we speak all the languages there." (Bricklayer)
"As an electrician, there are a lot of foreigners on the construction site and, as I said, if you have the same mother tongue you can understand each other better." (Licensed Electrician)
"English [is important at work] when you work away." (Carpenter)

## External actors

"English [is heard or used in our company] for example with customers or with different suppliers from abroad." (Joiner)
"The bigger the timber construction company is, and the more it has expanded, the more the additional language skills are useful (working abroad/foreign customers)." (Carpenter)
"It's easier if you know several languages, because you can communicate better with customers whose German isn't so good." (Hairdresser)
"I've often been able to build a relationship with customers through my knowledge of Spanish and English!" (Licensed Electrician)

## Internal work areas

"Besides, [if language skills are recognised at the workplace] the boss/supervisor also knows that he can use them [the employees] for other things that have to do with languages." (Hairdresser)
"Since we have many people from the Balkans in the department next door, more and more often they speak to each other in a different language." (Design Engineer)
"Apprentices have a lot of new ideas and being able to communicate them in many languages can be very valuable to the company." (Vocational trainer)

## Internal actors

"We also have employees who are originally from abroad and therefore you switch to English with them." (Information Technologist)
"Different languages are spoken depending on the co-worker." (Bricklayer)
"Every now and then he [my vocational trainer] gets emails in English. And then I had to translate it to him not in writing, but just actually tell him what the customer meant by it." (Mechanical Engineer profile E)

## Occupation-specific language used internally

"Certain shampoo names are English. And sometimes people who don't know English get the shampoo mixed up. And that's actually a pretty stupid thing, but if you know English, then you can't mix it up." (Hairdresser)
"For example, if you get an error message from different programs. They are mostly in English, too. And of course it helps there if you can decipher them, and then understand what you have to do or what the problem is." (Information Technologist)
"In German, there was only a small explanation of how the component works. All the dimensions and the assembly instructions were all in English." (Design Engineer)
"English is an advantage because there are also English technical terms, especially in communications technology." (Licensed Electrician)
"Dialect, High German for instructions, and a little English for machine maintenance [are important for my job]." (Carpenter)
"Some of the company manuals are written in other languages." (Vocational trainer)
"Understanding of tools/programs that are run in English." (Vocational trainer)

### 3.2.2 Do apprentices use mediation and translation skills in their workplaces?

This question is answered based on:

- Responses to question 20.3 in the questionnaire for apprentices (phase 1:)
- 48 comments (apprentices) on the theme of mediation (phase 1:)
- 9 comments (other stakeholders) on the theme of mediation (phase 2:)
- Informal feedback from other stakeholders (phase 2)

Short answer: Apprentices carried out linguistic mediation work between people who speak different languages. In some professions this appeared to be part of the professional norm, in others less so, or not at all. This kind of mediation work consisted primarily of oral translation and support in the area of understanding and inclusion, either within a language or between languages. These activities were associated not only with professional behaviour, but also with potential stress.

Languages appeared to have a cognitive and social function, according to our results, in that understanding was generated together with others, by means of one or more languages.
In the questionnaire for apprentices, we asked questions about translating at work and received additional relevant comments that shed light on how apprentices used their languages to facilitate communication between people who spoke different languages. However, this required that a person wanted to help.

Figure 8: Translation work done by apprentices in the workplace


In the questionnaire, $\mathbf{2 7 \%}$ of apprentices felt it was rather/totally true that they sometimes translated for colleagues or supervisors at work (see Figure 8). This proportion was highest among Hairdressers, at $64 \%$, which may be due to the fact that communication with clients is an important part of work in this occupational group. However, Bricklayers (39\%) also rather/totally agreed with this statement, albeit at a considerably lower rate. Surprisingly, only $17 \%$ of Information Technologists and $17 \%$ of Mechanical Engineers (E) stated that they translate at work, although almost $80 \%$ of this group believed that additional languages were an asset in their company. $13 \%$ of Carpenters and $23 \%$ of Joiners felt this statement was rather/totally true, although only $8 \%$ of the latter indicate that they heard other languages at work and $10 \%$ that they spoke any.

It is possible that the term translate may have been interpreted differently by learners from different professions: Hairdressers and Bricklayers may have considered oral translation or mediation while other professions may have considered formal written translation.

Our thematic analysis also shows that apprentices engage in linguistic mediation in different ways. Apprentices used primarily their oral language skills to help others and to translate. They mediated within as well as between languages through explanations, and gestures. What is important here seems to be that for some apprentices mediating came naturally, i.e. they were willing to do such mediation work, and even described it as professional behaviour. This willingness to mediate seems to be related to ideological factors, as we report in Chapter 4. However, some apprentices also associated such language switching with potential stress. In phase 2 discussions, vocational trainers confirmed that the apprentices' good knowledge of English was very much appreciated and used in a targeted manner. It was also noted that apprentices support each other using English as a lingua franca when one apprentice's knowledge of German was limited. Such mediation using English as a lingua franca was also noted in terms of communicating with customers in technical companies.

The following quotes from the data collection illustrate how learners used translation and mediation skills in their workplace.

## Apprentices help with their languages

"My supervisor (40) appreciates my English skills very much, I can talk to customers better than he can, he also asks a lot of grammar questions when he wants to learn something." (Design Engineer)
"If someone doesn't speak any German, I can help them." (Bricklayer)
"The foreman [who could speak Italian] had an accident. Then a Swiss foreman joined our [Italianspeaking] group. I had to translate a bit for that foreman". (Bricklayer)

## Oral translation in the workplace

"Well, it was on the internet, so it was text. And I just translated orally [from English to German] for a person in sales." (Information Technologist)
"And when I was working, once I had to translate Spanish, and then once I had to translate Italian." (Design Engineer)
"For example, when foreigners come or something. There are some people in Liechtenstein who only know English, and then I have to play interpreter sometimes." (Joiner)
"However, we have clients who only speak English. I have to translate for them." (Hairdresser)
"If you understand them [languages], you can act as an interpreter for external parties." (Mechanical Engineer profile E)

## Willingness to mediate

"I'm then the type who tries the best I can to explain the situation. Even if there is no reason, I go to that person and say, you know, what just happened and tell the joke [that was told in another language] so that it really doesn't come across in the wrong way. I'm that kind of person." (Design Engineer)
"There are problems now and then, that they [colleagues from the Far East] just don't understand and then you have to explain it to them briefly and then it works." (Design Engineer)
"It doesn't matter whether I understand it the first time or have to ask again." (Carpenter)
"You can also talk with your hands and feet! There is always a way." (Painter)
"So it depends, for example, if the employee is from Kosovo or Yugoslavia. Or if a new employee is Italian. He's starting over and usually these people don't know German or their German is not good. And to understand something and to communicate, you have to speak Italian, for example." (Bricklayer)
"Also to foster capable foremen who understand the operation and can also communicate that to the many employees from abroad in order to avoid any damage." (Professional responsible for VET)

## Stress

"It can be a bit of a strain on someone at times, for example, if I now have to think it over from Bosnian to English with two people (...). And now someone from the German side comes and says something again, then everything gets mixed up a bit. Then it might be a bit stressful for a moment." (Design Engineer)

## Professionalism

"As many of my colleagues have not had English lessons, they cannot communicate well with customers and need help with translating when serving them. I find this very unprofessional." (Hairdresser)

### 3.3 Social interaction, working environment, identity and challenges

It is established that languages play a role in social interaction in the workplace (Coray \& Duchêne, 2017; Filliettaz, 2022). Companies are inherently interested in productivity and consider the concepts of teamwork or social cohesion primarily as a means to achieve this goal. The significance of language barriers in this regard has been recognised in management and business research (Alvesson \& Kärremann, 2000) as a crucial but under-researched leadership challenge in multilingual work environments (Tenzer \& Pudelko, 2015; Coray \& Duchêne, 2017).

The relevant literature shows that multilingualism can have both positive and negative effects on the performance of a team. Minimising language exclusion in teams (e.g. through the use of Tenzer and Pudelko's strategies) is associated with improved sensitivity (people are more likely to understand each other) and a more productive work environment, which in turn promotes motivation, trust, collaboration, team cohesion, organisational identity, optimism and risk-taking among innovators (Tenzer \& Pudelko, 2015).

Exclusionary language practices are associated with negative effects on a team's performance and can lead to negative emotions, firstly through procedural injustice (when expertise expressed in the lingua franca is perceived as lacking, which can lead to a perceived unfairness in judgement); secondly, through the social identities of team members (exclusion through language practices can lead to dissatisfaction with the organisation or groups, based on perceived lack of belonging and disrespect); and thirdly, through the mood in the workplace (linguistic exclusion can lead to anger and resentment rather than satisfaction and pride) (Kulkarni \& Sommer, 2015).

Regarding the overarching themes of social interaction, work environment, identity and challenges, our findings show the role that linguistic factors can play in terms of work environment, affiliation, identities and/or social exclusion in in technical VET programmes.

### 3.3.1 What role do languages play in a good working environment?

This question is answered based on:

- 25 comments (apprentices) on the theme of work environment (phase 1)
- 1 comment (other stakeholders) on the theme of work environment (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: A common first language, on the one hand, was associated with a positive influence on the working environment, but on the other hand, so was the use of several languages. The foundation of a good working environment in a multilingual context appeared to be respect and interest for each other's languages and cultures. Multilingualism was also associated with integration, cultural learning and understanding.

According to our findings, languages appeared to play a social and emotional role in a good working environment. In the comments that we attributed to the theme of working environment, apprentices stated that having a common language or dialect was good for the working environment, as everyone could understand one another and feel a sense of belonging. This means that the consistent use of a common first language, for example Swiss German or Italian, is associated with a sense of well-being. However, it is also possible for there to be a good working environment in a multilingual team: according to our results, respondents did not necessarily feel excluded when languages they did not understand were used. Respect for other languages, however, seemed to be a prerequisite for a good working environment in a multilingual team. In addition, languages were widely described as the key to other cultures.

In phase 2 discussions in the companies, vocational trainers also confirmed that they were able to create a respectful and motivating working environment by taking an interest in the apprentices' language of origin.

5The following quotes from the data collection illustrate the role languages played in terms of a positive work climate.
Using one's first language (intralingually) contributes to wellbeing
"Everyone speaks dialect here and everyone understands it. It's just nice to be able to talk the way you do naturally." (Design Engineer)
"And we only spoke Italian [family language] that day. And it has been huge fun and I have felt really comfortable." (Design Engineer)
"Among Turks it feels good to be able to speak Turkish because the emotions are more recognisable." (Information Technologist)
[I am happy] "Because you feel comfortable with your own language." (Painter)
Multilingual (cross-lingual) communication has a positive influence
"And the [multilingual staff] have a very strong influence on the atmosphere. Because I come inside, they laugh and sing a bit in their language. And then explain to me what it means. They come to talk and try to teach someone a bit of their accent. [...] Yes, it has a positive influence." (Design Engineer)
"It's fun when, for example, an Albanian talks to an Italian in Italian." (Bricklayer)
"Then something clicks in my mind, hey Serbia and I'm from Bosnia. We speak the same, maybe I can stand here for ten minutes and try to explain it to him." (Design Engineer)

## Respect for other languages

"It is important to show respect and always have an open ear." (Design Engineer)
"At work there are many who are interested in my language. Then they always ask all the time, well, tell me what that means. Then they show me songs in Arabic and say, come on, translate this." (Design Engineer)

## Multilingualism supports relationships between people and cultures

"These languages are like a key for me. If you know more languages, for example, you have more opportunities or possibilities to communicate and to integrate." (Bricklayer)
"The more languages you know, the better you can communicate with people and make new friends." (Metal Builder)
"I think by being able to speak many languages, you can better express yourself or your opinion. You can exchange ideas with people who come from a different culture." (Design Engineer)
"I think being able to speak other languages is good. It is a great opportunity to get to know other worlds and cultures." (Bricklayer)

### 3.3.2 What role do languages play in exclusionary practices in the workplace?

This question is answered based on:

- Responses to questions 20.3 and 20.5 in the questionnaire for apprentices (phase 1)
- 80 comments (apprentices) on the theme of challenges (phase 1)
- 9 comments (other stakeholders) on the theme of challenges (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: In our case study, apprentices sometimes felt linguistically excluded at work, and they also perceived exclusionary linguistic behaviour. This can take the form of practical communication problems, as well as conscious or unconscious uses of languages that were not understood by others. This kind of behaviour was associated with misunderstandings and perceived as impolite or even as threatening.

Knowing that language use and/or language barriers can also have negative effects, our questionnaire included questions about feelings of exclusion and exclusionary behaviour.

First, we asked whether apprentices sometimes felt excluded at work because of multilingualism (see Figure 9). Overall, $14 \%$ of apprentices agreed with the corresponding statement. Similarly to the results in 3.1.2 and 3.1.3, only $1.9 \%$ of Carpenters agreed that it was rather/totally true that they sometimes feel excluded when they do not understand the language spoken by their colleagues. Here too, Bricklayers (23\%) agreed with this statement to a greater extent. $24 \%$ of Hairdressers also agreed that this statement was rather/totally true, most likely because their clients spoke languages they did not understand. While, overall, $14 \%$ of the apprentices surveyed felt excluded in multilingual contexts, a majority of $\mathbf{7 3 \%}$ felt it was rather not/not at all true that they sometimes feel excluded when languages they do not understand were spoken.

Figure 9: Feeling of exclusion because of language use


Secondly, we asked to what extent they perceived exclusionary behaviour of this kind. Our quantitative analysis indicates that exclusionary group behaviour was not common, but some did experience it. $11 \%$ felt it was rather/totally true that there were groups in their workplace who did not want to have anything to do with colleagues who speak a different language (Figure 10). 8\% of the respondents felt it was rather/totally true that they personally did not want anything to do with people who speak a different language. However, a clear majority felt it was rather/totally not true that there were groups (80\%) who did not want to have anything to do with speakers of other languages, or that they themselves ( $84 \%$ ) did not want to have anything to do with speakers of other languages. We are therefore able to assume that the majority do not perceive multilingualism as socially problematic. Our data on exclusionary behaviour can be associated with exclusion of language groups and should be taken seriously, even if it was not
frequently mentioned. Research suggests that other factors, such as prejudices, sometimes play a role in exclusionary behaviour between linguistic groups. We will address this aspect in Chapter 4 of our report.

Figure 10: Perception of exclusionary behaviour


In the comments, apprentices mentioned that they experienced language-related challenges or problems in multilingual groups, which they deemed detrimental to efficient work performance and a good working environment. Communication problems were mentioned, which were associated with problems in understanding, or misunderstandings. These made it difficult to carry out the work effectively, which was described by the apprentices as troublesome.

But exclusionary language use was also reported, which may take place consciously or unconsciously. The thematic analysis again provides a more in-depth insight into language barriers and exclusion. Apprentices described situations in which a language that others do not understand was used consciously or unconsciously as unfriendly, impolite and unpleasant. This implied feeling potentially excluded and insecure in this professional situation. However, the quotations also show that people who engaged in this exclusionary use of language were sometimes also aware of its exclusionary effect, and may have used this tactically and intentionally to create privacy. Feelings of being excluded were also described in the informal discussions with host companies, for example in communication situations during breaks, and in departments where a certain language was predominant.

55
The following quotes from the data collection illustrate the role attributed to languages in exclusionary practices in the workplace.

## Practical communication problems and misunderstandings

"Two [of my colleagues] are fluent in German, the others are not [they speak Italian]. As a result, there are always situations where you don't understand each other and that is tedious." (Metal Builder)
"If certain customers speak a language other than German, dialect or English, this becomes a big communication problem." (Hairdresser)
"Too many different languages confuse people and make it harder for everyone to communicate with each other." (Carpenter)
"Misunderstandings can be avoided if the language is consistent." (Bricklayer)

## Exclusionary behaviour is rude or a threat

"If you speak a different language with a customer and other customers sitting next to you don't understand it, it is unfriendly and unpleasant for the customer sitting next to you." (Hairdresser)
"You should always speak a language that everyone understands because otherwise the other person, who doesn't understand you, will think you're talking bad about them, or that it's something secret. This causes an uncomfortable feeling in the end." (Joiner)
"Because there are certain types of people who like to hear everything in German and feel attacked or excluded if you speak another language in their presence." (Design Engineer)

## Conscious or unconscious exclusionary behaviour

"The people around me don't always understand my language, so they think you're talking about them." (Painter)

I sometimes speak Bosnian with my colleague "just with the ulterior motive of knowing that not everyone understands it. That maybe it's something private that we're talking about." (Mechanical Engineer profile G)

## Language conflicts at lower-secondary level

"When a lot of people speak the same language and only one person doesn't know this language and can't communicate, then it always seems to come down to, yes, they want to stir things up against him and he also wants to stir things up against them, especially when it comes to egotism. [...] In the school here at the BZB [this does not happen], no." (Design Engineer)

### 3.3.3 What role does multilingualism play in the development of identities?

This question is answered based on:

- 25 comments (apprentices) on the theme of identity (phase 1)
- 2 comments (other stakeholders) on the theme of identity (phase 2)

Short answer: Apprentices express various identities in relation to a single language or to several languages. For example, multilingualism is associated with feelings such as pride, and your first language (dialect and languages of origin) with being able to be yourself

The comments on identity show that some of the apprentices identified as multilinguals and others as monolinguals, despite being multilingual if we consider languages studied at school. This means that we discerned the construction of multilingual and monolingual identities in our case study, assuming this may vary based on context. In addition, multilingualism was explicitly associated with feelings such as pride, while the learners also felt that using their first language allowed them to be themselves. We also expect that some of these identities overlap in this sample, such as pride in being multilingual and the need to express a particular identity using one's own language. However, further research would be needed to provide deeper insights into this.

## g

The following quotes from the data collection illustrate what role languages play in the development of identities.

## Identity through multilingualism

"I'm just multilingual, so I'm always jumping back and forth between these three languages. My thoughts in my head, too. Sometimes it's English, sometimes German, sometimes [my first language, anonymised] again." (Mechanical Engineer profile G)
"I am a multilingual guy". (Design Engineer)
"Languages build identity, so I find your work extremely valuable on a sociological and socio-psychological level." (Vocational college teacher)

## Identity through a specific language

"No interest, [I] speak the way I grew up speaking." (Joiner)
My mother tongue "is, for me, the most important language I know. Because it is what I am. (...) and it's just me." (Joiner)

My native language "is just like a part of me. So I'm really just proud of it." (Hairdresser)

## Pride in language skills

"In the end, you are proud of yourself when you know a new language." (Hairdresser)
"I've noticed a few times when I start speaking English and then hang up the phone, I see this kind of nodding of heads from all the project leaders. It's such an open-plan office, so it's like, wow, he's got it." (Design Engineer)
"Well, I think it's very cool when you can always understand everything. No matter where a person comes from, you understand them. That's why I think it's cool if you know several languages." (Design Engineer)

## Being able to be oneself

"Among Turks it feels good to be able to speak Turkish because the emotions are more recognisable." (Information Technologist)
[I am happy] "Because you feel comfortable with your own language." (Painter)


## 4 Attitudes

People have different ideological views on how languages should be organised in society. Depending on a person's socialisation and the resultant cultural norms framework, some people may welcome linguistic diversity, which is also found in education, while others may see it as a threat to learning and society (Baker, 2006). Norms, values and attitudes towards languages, and how a society should handle multilingualism are subjective and often based on widespread assumptions about what is generally taken for granted and considered normal (Meier \& Smala, 2022).

In many European countries, there is a historical assumption that a nation ideally has one language, and that other languages do not belong in it (Wright, 2004). While countries like Switzerland or Belgium show that a nation can function with several official languages, regional identity is often linked to one language. In Switzerland these would be the four national languages, and German in the Principality of Liechtenstein. However, the assumption of a monolingual region often runs counter to social reality, as most societies are composed of people with different language backgrounds and language learning biographies.

In this Chapter, we indicate that multilingualism can be viewed as an asset that generates understanding in professional and private spheres. However, languages are also assessed hierarchically, which means that some languages are evaluated as more useful than others. As in wider society, apprentices in our case study are either receptive to, or sceptical about, a multilingual society.

### 4.1 Attitudes towards personal multilingualism

Languages are often associated with instrumental or operational benefits; for example, as a practical communication tool that allows the completion of a task (Filliettaz, 2022). However, languages are also described as a social resource that facilitates interpersonal interaction (Angermueller \& Glady, 2017; Filliettaz, 2022). In this respect, multilingualism opens access to both looser and closer social contacts (Meier \& Smala, 2022). However, attitudes to individual languages vary according to experience (Meier \& Smala, 2022), and linguistic resources are also valued differently depending on the situation (Coste et al., 2009). As regards our case study, we were primarily interested in attitudes towards the value of different languages in professional and personal situations. However, the participants also combine linguistic awareness with cognitive benefits, which is described in the literature as the added value of multilingualism (Kofler, Peyer \& Barras, 2020).

To determine how participants in our study evaluate personal multilingualism in their work environment, we asked open-ended questions regarding the advantages and the importance of languages at work.

### 4.1.1 What professional advantages are associated with multilingualism?

This question is answered based on:

- 87 comments (apprentices) on the theme of languages as an asset at work (phase 1)
- 19 comments (other stakeholders) on the theme of languages as an asset at work (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Participants viewed personal multilingualism, on the one hand, as a professional advantage for employees (job search, working abroad, professional future) and, on the other hand, as a potential asset for companies, both operationally (problem solving, safety at work, damage minimisation) and socially (customer contact, integration). Some argued that work skills matter rather than languages.

The comments from the thematic analysis revealed that language skills were associated with potential advantages at work, in practical (operational) and social terms. This Chapter is about the potential benefits of language competences rather than how they are actually used by apprentices (this is described in Chapter 3). These potential benefits included advantages for employees, namely for work in general, for finding a job, for assignments abroad and for their professional future. Operational advantages for the company were also mentioned, as well as advantages in terms of work safety and damage minimisation. In terms of social benefits for the workplace, participants associated language skills with good customer contacts, problem solving and integration. In our discussions with professionals, the need for language
skills in some occupations was emphasised in view of pursuing further education or a management position in the future. However, results from the thematic analysis and from informal feedback during the dissemination process show that some respondents also emphasised the importance of the skills, and relegated languages to the background.

In the learner and stakeholder questionnaires, as well as during informal discussions, apprentices and professionals responsible for VET largely assessed language skills as an advantage in the context of VET, for their professional development, as well as in their private lives.

## g <br> The following quotes from the data collection illustrate the professional advantages associated with personal multilingualism.

## Advantages for employees

"It's useful to know several languages. Plus, it looks good on applications." (Information Technologist)
In the VET programmes, I work with, English is an advantage. English "is needed when doing an internship abroad. No matter what country it's in - English is the door opener." (Vocational college teacher)
"If you have assignments abroad, I think it would be an advantage to be able to speak other languages as well." (Joiner)
"In a higher position I think it is an advantage if you know several languages." (Design Engineer)
"If you have a good command of several languages, it's a significant advantage in your later career as well. These days you need several languages in almost all professions." (Information Technologist)

## Problem solving

"As soon as there are major communication problems, they should be solved fairly, but not exclusively in German." (Carpenter)
"With these languages [I can solve problems] in difficult situations." (Design Engineer)

## Work safety, damage limitation

"German, English [are important in the vocational training I work with] for example labels on packaging, precautionary procedures, ..." (Vocational trainer)
"I think this project is very important (...) also to prevent damage. I experienced what damage can be caused abroad if the work order is not communicated in a comprehensible way." (Professional responsible for VET)

## Customer contacts

"More languages - more customers." (Painter)
"Basically, all languages are an advantage in my job because we have customers all over the world." (Design Engineer)
"I think it's a great advantage to be able to speak different languages, because when customers come who know almost no German, it's more pleasant for them to hear a familiar language." (Hairdresser) It is "important to increase the feel-good factor also with customers from other countries [through languages]." (Design Engineer)

## Integration

Multilingual apprentices "can contribute to the integration of foreign colleagues who do not yet have sufficient language skills in the national language." (Host company representative)

The work skills is what counts - not the languages
"We are in a profession where the focus is on the trade and not on how we communicate with each other." (Carpenter)
"In construction, you are not judged on your language, but on how you work!" (Painter)

### 4.1.2 What private benefits are associated with personal multilingualism?

This question is answered based on:

- 210 comments (apprentices) on the theme of languages as an asset in life (phase 1)
- 12 comments (other stakeholders) on the theme of languages as an asset in life (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Our results indicate that language resources were viewed as an asset, also for personal life. Personal multilingualism was perceived as a resource for living in society, and was linked to private social benefits (e.g. relationships with family, friends and acquaintances at home and abroad) and practical benefits (e.g. travel and entertainment media).

In the apprentice survey, as well as in the informal discussions with professionals and trainers, many comments and statements were made about social and operational advantages of personal multilingualism. Social benefits are about maintaining and building relationships with close contacts, such as family members and friends, as well as social relationships with more casual contacts, by being able to meet new people using any language skills, both locally and internationally. The operational benefits stated relate, for instance, to the organisation of travel and going abroad, and accessing information and entertainment.

55The following quotes from the data collection illustrate the personal benefits associated with multilingualism.

## General personal advantages

"So you could actually say that every language you have more of is always an advantage. That way you can help yourself better." (Design Engineer)
"In my opinion, learning languages is a wonderful way to succeed in your personal and professional life." (Mechanical Engineer profile E)

## Family and friendships

"I only speak Portuguese with my parents because they understand German very poorly." (Hairdresser)
"I like to speak with my friends in their languages, e.g. Albanian, Croatian, Italian, etc. So I can speak single words in other languages." (Hairdresser)
"I have several friends from England, so I often speak a lot of English." (Licensed Electrician)

## Communicating with people at home and abroad

"I think it's a good thing to learn new languages to be able to communicate with foreigners." (Bricklayer)
"I think English is very important so that you can communicate worldwide." (Licensed Electrician)
"I think it's important to be able to use several languages, because it makes it much easier to communicate with my fellow humans and also brings me nothing but advantages." (Licensed Electrician)
"Personally, I think that in today's multicultural world it is important to have a certain language repertoire. It lets you have a wider range of social contacts." (Joiner)

## Leisure activities

"I just watch films in English or play games in English." (Hairdresser)
"And if I consume any media on the internet, it's mainly English. But it also always has exciting stuff [in my first language, anonymised], and then again in German, and then I'm always on the move with these languages. And I would never do without them." (Mechanical Engineer profile G)

## Private travel

"I would like to see the world, so I need to know several languages." (Mechanical Engineer profile G)
"I consider it [languages] very important for the mind and for the rest of life." (Painter)

## Volunteering

"I've been with an organisation for a few years [...] that helps ensure that the less fortunate countries in the world, from Nepal to Tanzania in Africa, have clean water in their homes. And I've been there for a few years. [...] And you just have to know English to be able to participate in it. You can't expect them to know German or anything." (Design Engineer)

### 4.1.3 Are there other benefits associated with personal multilingualism?

This question is answered based on:

- 38 comments (apprentices) on languages as a cognitive advantage (phase 1)
- 3 comments (other stakeholders) on languages as a cognitive advantage (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Besides operational and social benefits, there was also the perception that multilingualism is related to language awareness. In this respect, personal multilingualism was seen as a cognitive advantage that supports (critical) thinking and learning, promotes intercultural and textual understanding through flexible and multilingual approaches.

In the comments, linguistic awareness developed through multilingualism was perceived as an advantage in (critical) thinking and learning, in terms of learning in general, and language learning in particular, as well as in terms of flexibility and for accessing religious texts. Multilingualism was also associated with clearer understanding and communication. Apprentices believed that understanding can be generated through the use of multiple languages (also called translanguaging). Having a common language was identified as an important resource in this context. Furthermore, personal multilingualism was described as an advantage for building cultural understanding and developing open-mindedness. This means that there were participants who saw multilingualism as something positive, and who were open to other languages and cultures.

The following quotes from the data collection illustrate what other benefits are associated with personal multilingualism.

Language awareness
"It's interesting how the languages are different and also how they are sometimes connected." (Mechanical Engineer profile G)
"By learning other languages, you are enriching your own ability to think, because you have access to different language patterns and words." (Design Engineer)
"So, for example, if I can't think of a word in German, sometimes there are comparisons in English or Albanian where I can see a connection and then it comes back to me eventually. Or if I say it in the other language, then people realise that it could be this and that. And something like that is quite an advantage." (Design Engineer)

## Clear communication and information sharing

"I think being able to speak many languages makes it easier to express yourself or your opinion." (Design Engineer)
"Italian and Portuguese [are an advantage] for proper communication." (Bricklayer)
"You understand more when you know several languages." (Bricklayer)
"With only one language, everyone understands everyone else and it is much easier to communicate with each other." (Carpenter)

## Cultural understanding

"I think being able to speak other languages is good. It is a great opportunity to get to know other worlds and cultures." (Bricklayer)
"I think that by learning a foreign language you learn a lot more about the country and the culture of a country, because a language is also always a representation of the culture." (Information Technologist)

### 4.1.4 Which languages are considered useful?

This question is answered based on:

- 70 comments (apprentices) on the theme of language hierarchies (phase 1)
- 78 comments (other stakeholders) on the theme of language hierarchies (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Attitudes towards languages varied among participants. The local languages (German and dialects) were described by almost all as important for life in Switzerland and the Principality of Liechtenstein. Some considered German and English in particular, as well as other languages, to be valuable for their career. However, the importance of languages was perceived in a hierarchical way; for instance, German and English were considered more useful than other national languages or languages associated with migration.

The languages in apprentices' repertoires were not all ascribed the same status. The participants perceived a language hierarchy in which languages were categorised depending on their perceived usefulness. German and local dialects - the local languages in our case study - were clearly described as useful for living in German-speaking Switzerland. This was followed by English and other languages which were deemed as being an advantage for work. These other languages included French as a national language, Italian as a working language, and languages that apprentices bring with them due to migration histories.

Sometimes dialect or German was described as the only relevant national language. English competence was considered an advantage in companies operating internationally in both internal and external situations. In phase 2, professionals also emphasised the high importance of the local language. In addition, they confirmed that in internationally active companies, English in particular was given a high priority.

## g

The following quotes from the data collection illustrate which languages are considered useful.

## German for living in (German-speaking) Switzerland

"German, for example, is a language we speak in Switzerland and it is an advantage if you know it." (Bricklayer)
"German [is important] because it is the national language and there are a lot of local employees." (Apprenticeship trainer)
"The main language in Switzerland is German/dialect." (Hairdresser)
"For the foreigners who come here, I think it is important that they learn the national language. That's the priority." (Bricklayer)

## German and English for work

"German, as a national language [is an advantage]. English is advantageous for international projects and work instructions." (Apprenticeship trainer)
"English is always good, but we rarely need other languages." (Hairdresser)
"So, I would say only English. In our field it's definitely English, which is a big advantage." (Mechanical Engineer profile E)
"I think English is very important so that you can communicate worldwide." (Licensed Electrician)

## Other languages for work

"I think the most important things are dialect and High German. However, English and Italian, for example, are also very useful." (Hairdresser)

It is an advantage to have "German - site. English - international company. French - Swiss company." (Apprenticeship trainer)

It is an advantage to have "English, since it is the Group's language. French, contacts with suppliers, national language of Switzerland. (Apprenticeship trainer)

It is an advantage to have "English, Russian, Polish: because of the business relations between host companies internationally and with Eastern Europe." (Vocational college teacher, vocational trainer and career adviser)

## Useful and less useful languages

"German/dialect is most important and English is second." (Hairdresser)
"All languages may be appreciated, but not all will be an advantage at work." (Mechanical Engineer profile E)
"Some languages have no use and others do." (Design Engineer)
"you can't use all languages equally." (Mechanical Engineer profile G)
"There are of course languages that are more or less valued." (Mechanical Engineer profile E)
"It depends on the language. German, English, French, Slovakian are welcome, other languages like Bosnian, Kurdish, Albanian less so." (Design Engineer)
"English is a 'nice to have' and everything else, especially Bosnian/Albanian/Macedonian is not appreciated." (Design Engineer)
"Albanian and Yugoslavian languages are seen as negative." (Painter)
"Most of the time customers consider it positive if you can at least communicate in English, which, on the other hand, is also perceived negatively by other customers who can speak German/dialect. Others, however, react neutrally to it because today we are in a world where everything is allowed and everyone is also allowed to speak the language they understand." (Hairdresser)

### 4.2 Perceived ideological attitudes

In addition to practical and social value (see 4.1), languages are also considered to have symbolic and subjective - or ideological - value (Ricento, 2014). Research has established that there are people who welcome or accept a multilingual society, while others wish for a monolingual society, or expect everyone around them to speak the same language (Stolle, 2013). Language norms and attitudes influence perceptions of social status, legitimacy and belonging of people who bring with them different languages (Meier \& Smala, 2022), and also influence how languages are valued, as well as beliefs about how languages are best learned (Ortega, 2014).

Depending on how people think about social belonging, some people are more open to speakers of other languages in society, and others see them more as a disruptive factor or a challenge (Stolle, 2013). Sceptical attitudes about societal multilingualism can lead to individual fears and resentment towards speakers of other languages (Tenzer \& Pudelko, 2015). According to Tenzer and Pudelko (2015), these tendencies are an obstacle to a good and productive work climate.

Coray and Duchêne (2017, p. 36, our translation) summarise that in the case of exclusionary practices, it is not always inadequate language skills that
"are the main obstacle to accessing employment and economic integration, but that other factors are equally influential, in particular the historical migration backgrounds that shape the status of migrants and their languages, as well as supranational, national and corporate language policies, and finally the familial and individual, mostly pragmatic, language-related assessments and attitudes of the migrants themselves."

In the following, we show that the respondents in our study expressed varying attitudes towards a multilingual society or multilingual workplaces. These included open-minded attitudes, as well as more sceptical attitudes and prejudices, which were seen to either promote or hinder work integration.

### 4.2.1 Are apprentices open to a multilingual society?

This question is answered based on:

- 11 comments (apprentices) on the theme of inclusive attitudes (phase 1)
- 1 comment (other stakeholders) on the theme of inclusive attitudes (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Attitudes associated with open-mindedness were expressed in our study. These were based on the mindset that all should be linguistically included, and that other people should be treated with respect and tolerance and without malice. Such open-minded attitudes were also associated with living together harmoniously. Some companies welcomed multilingualism as a potential asset, and argued that learning the local language could take place during VET.

An important factor that was thought to play a role in multilingual teams was the fundamental willingness to understand each other and to promote inclusion. We also observed attitudes associated with openness in the comments, which we understand as a prerequisite for the willingness to mediate. There was also a call for respectful, fair and tolerant interactions in multilingual situations. During the discussions in phase 2 of the case study, professionals mentioned that in their companies they supported apprentices whose first language was not German in learning German, especially with regard to technical language. Some companies welcomed multilingualism and viewed it as a human resource. These companies planned to systematically record the existing language skills of their employees so that these resources could be used in a targeted and beneficial manner when needed.

59
The following quotes from the data collection illustrate an open attitude towards a multilingual society.

Awareness of linguistic inclusion
"People should speak in a way, so that everyone knows what's going on." (Mechanical Engineer profile E)
"Using different languages is perfectly fine as long as you're not doing it in bad faith." (Hairdresser)
"As long as you can talk to the others, everything is fine." (Bricklayer)

## Respectful and fair treatment

"It's important to show respect and to always have an open ear." (Design Engineer)
"A host company with a team that has language skills in different languages communicates democratic values, among other things. It shows appreciation towards all people (with or without migration history), which is a basic prerequisite for harmonious cooperation (or working environment)." (Vocational teacher)

## Tolerance towards speakers of other languages

"I think you shouldn't expect everyone to know perfect German, because for some people speaking German is difficult." (Hairdresser)
"In our case, knowing German well is an advantage, but it's not a problem if you don't know it so well." (Information Technologist)

### 4.2.2 Are apprentices sceptical about a multilingual society?

This question is answered based on:

- 83 comments (apprentices) on the theme of Exclusive attitudes (phase 1)

Short answer: Attitudes towards languages can be affected by prejudice. Some respondents stated that people felt discriminated against because of their language backgrounds. Apprentices with a migrant background sometimes felt that their first languages were perceived as a threat or as unpleasant. On the other hand, apprentices expressed nationalist attitudes by acknowledging only the local languages of German or dialect as legitimate.

Our thematic analysis confirmed that attitudes perceived in our case study had less to do with language per se than with prejudices between population groups, especially between people from migrant and non-migrant backgrounds (see 3.3.2 regarding exclusionary language practices). As in most societies in our globalised world, some people seemed to feel threatened or uncomfortable by the presence of certain groups and the use of certain languages. Others felt unwelcome and experienced this in the form of insults related to group characteristics such as nationality and origin that had nothing to do with their personality or work skills. Such attitudes were also perceived at the vocational college. We recognised the expression of nationalistic language norms among some of the apprentices. This means that those who spoke languages that are not German or not one of the Swiss national languages felt rejected or discriminated against on the grounds that they did not belong. There were also demands that foreigners learned the local language. Among participants, it was not disputed that learning the local language (German and German dialects in our case study) was important to succeed in VET but, but as shown in 4.2.1, some were more empathetic than others to those who were learning the language.

59
The following quotes from the data collection illustrate a sceptical attitude towards a multilingual society.

## Multilingualism as a threat

"Because there are certain types of people who like to hear everything in German and feel attacked or excluded if you speak another language in their presence." (Design Engineer)
"My boss sees it as an attack by foreigners if you don't speak German." (Mechanical Engineer profile G)

## Multilingualism perceived as uncomfortable

"Because they [employees] come from different countries and if something sounds unfamiliar, people tend to be reluctant." (Mechanical Engineer profile E)
"Sometimes it annoys me that so many employees (especially in production) speak another language/languages (Albanian, Turkish, etc.) that I don't understand." (Mechanical Engineer profile E)
"I think it has to do with the fact that Swiss patriots probably don't like it when German is not spoken in their company." (Carpenter)
"And I'm annoyed by our German apprentice because he doesn't know Swiss German." (Joiner)
Multilingualism associated with prejudice
"People always have an ulterior motive and, for example, have something against a country and then automatically think the language is bad." (Hairdresser)
"Because the language might belong to a minority that is not liked and is judged that way." (Licensed Electrician)
"Prejudice/racism (backwards thinking of many Swiss people, especially older people)." (Design Engineer)

## Nationality associated with prejudice

"Swiss people work better than foreigners. It’s just true." (Painter)

## Perceived discrimination

"Unfortunately, you are often insulted when you grow up as a foreign language speaker in Switzerland." (Hairdresser)
"Because such old joiners still have a very racist way of thinking. All the others who speak German without an accent are treated better as a result." (Joiner)

## Expression of nationalist linguistic norms

"Only German [is important]. If they can't speak it, they should learn it or leave Switzerland again." (Licensed Electrician)
"We live in Switzerland and we speak German here!" (Bricklayer)
"German is spoken because it is the national language." (Carpenter)
"We live in Switzerland and the national languages are spoken here." (Licensed Electrician)
"Dialect [is important for relationships between employees] because we live in Switzerland." (Joiner)

## Use of other languages at school

"I'm not happy at bzbs because they speak far too many foreign languages." (Mechanical Engineer profile E)
"There are a few people who take advantage of it because they speak a different language. (Insulting, or just talking about others)." (Design Engineer)


## 5 VET programme evaluation

According to Lüdi (2010), VET should prepare young people for life in an increasingly multilingual Switzerland. Even though official acts (VPETA, 412.10, Art. 6), which are relevant to our case study, emphasise language training for VET that meets the local needs of vocational colleges, the majority of Ordinances on Vocational and Professional Education and Training (VPTA) in Switzerland do not envisage foreign language education (see also 1.1 language policy background). Documents, such as curricula and ordinances, are tools for managing language acquisition and status planning.

Languages prioritised (or restricted) as languages of learning and teaching, or those included (or excluded) as foreign and additional languages, can influence language hierarchies, attitudes and norms (Wright, 2004). Specifically, language acquisition planning is about managing language resources and their distribution in a society, while language status planning is about influencing the perceived importance of relevant languages. Language management in schools is therefore a major focus for any research interested in access to resources and shared (or divergent) norms and values (Meier \& Smala, 20222).

In this Chapter we first report on learners' interest in languages and language learning. We then summarise opinions and feedback on existing provisions, and record what suggestions are made by participants and what potential challenges are perceived.

In the following Chapter we will bring together all the results and make recommendations on what a multilingual education for VET, reflecting the current state of knowledge, might look like.

### 5.1 Language learning at school and at home

It is known from educational research that motivation is a fundamental condition for successful learning. Dörnyei (2011) distinguishes between initial motivation (why an initial interest is put into practice), persistence (how long the activity is maintained) and effort (how much effort is exerted). Language learning motivation is not only personal, but also social (Ushioda, 2007) and related to everyday life. Being required to learn something that has (seemingly) no relevance to one's life is one of the most demotivating factors for apprentices (Dörnyei \& Ushioda, 2013). For some apprentices, foreign languages may fall into this category. Educational institutions can support linguistic identities and related visions of the future, thereby sustaining motivation over time (Hadfield \& Dörnyei, 2014). In this literature, it is argued that apprentices who see themselves as persons who learn and use languages successfully are more motivated to make some effort to achieve their vision. We therefore included questions in our study about future plans (is there interest and a long-term vision?) and private language learning (has interest been acted upon?).

### 5.1.1 Are apprentices interested in learning languages at school and at home?

This question is answered based on:

- Responses to questions $8.4,8.5$, in the questionnaire for apprentices (phase 1 )
- 168 comments (apprentices) on the theme of Positive attitude towards language learning (phase 1)
- 2 comments (other stakeholders) on the theme of Positive attitude towards language learning (phase 2)
- 105 comments (apprentices) on the theme of Negative attitude towards language learning (phase 1)
- 1 comment (other stakeholders) on the theme of Negative attitude towards language learning
- Informal feedback from other stakeholders (phase 2)

Short answer: Almost two thirds of the apprentices stated that they wanted to learn a language in the future. There were apprentices in all professional strands who were motivated to learn languages, and some who were not. Reasons for interest or disinterest in languages and language learning were related to relevance to their professional and private lives, capacity and time to devote to it, and whether language learning was perceived as interesting, boring or difficult. Furthermore, initial motivation, and presumably also interest in future language learning, did not always mean that language learning was acted upon and pursued. If it was pursued, the motivation tended to be acted upon, using self-initiative.

Across the sample, $63 \%$ of apprentices said they wanted to learn a language in the future (see Figure 11). The groups that agreed most frequently with this statement were Hairdressers (79\%), followed by Painters (70\%), and Design Engineers as well as Information Technologists (both 69\%). The group that agreed the least with was that of Carpenters. But just under half of Carpenters (49\%) also said they wanted to learn a language in the future. Future language learning was associated with various goals, especially practical and social goals. It seems that professional reasons were not the main focus, as these were not frequently mentioned.

Figure 11: Interest in future language learning


In the survey, overall $29 \%$ agreed with the statement that they were learning an additional language in their private lives (see Figure 12). In particular, $48 \%$ of Hairdressers and $42 \%$ of Bricklayers responded with yes. This finding seems to prove that these two occupational groups not only used more languages than others but that they were also actively engaged in acquiring language skills.

Groups least likely to agree that they were learning a language in their private lives were Carpenters. But even in this group, almost one fifth (18\%) were learning a language privately. Among Joiners, as many as $30 \%$ (slightly above average) said they were learning an additional language privately. This shows that in every profession there was a considerable proportion of apprentices who were interested in language learning. However, based on our survey, we cannot determine how these language skills were being acquired, whether informally with friends and family or in online or other language courses. Further research is also needed here.

The qualitative comments on future plans and attitudes towards language learning showed that there were apprentices in all occupational groups who had a general interest in languages and in language learning. This was motivated by the perceived relevance of languages and language skills for their lives. Our analysis showed that an intention to learn languages was either acted upon through private initiative or not acted upon, for instance because there were no appropriate opportunities.

Figure 12: Private language learning


There were also apprentices who had no interest in learning a language. Indeed, there were apprentices in all occupational groups who expressed negative attitudes towards languages or language learning. The reasons given in qualitative comments included lack of motivation, because language learning was perceived as boring, difficult or not relevant, because they lacked time/capacity or lost motivation over time, or because they felt their current knowledge was sufficient. In discussions with qualified professionals, it was frequently stated that they had not been interested in foreign languages during their VET, but now regret their lack of language skills in relation to career opportunities and private interests.

55
The following quotes from the data collection illustrate learners' interest in educational and private language learning.

Future plans
"I plan to go abroad for half a year after my military service to improve my English." (Joiner)
"In the future I would like to learn Croatian/Bosnian because my mother was born there." (Licensed Electrician)
"For me personally, it would be an advantage to learn a bit of English as well, because I want to do the vocational baccalaureate qualification [after the apprenticeship] and I have to learn the language myself". (Carpenter)

Interest in languages and language learning
"I find learning languages exciting and any additional language you learn is always good." (Design Engineer)
"I find it fascinating to learn new languages." (Bricklayer)
Lack of motivation/interest
"I'm not so interested in learning new languages." (Joiner)
"I'm not so motivated." (Design Engineer)
"If you don't have any interest..., it's shit." (Joiner)
"There are already a lot of good programmes, but most of them fail because of the motivation of the apprentices. Learning success is usually achieved when the students know the extent and depth to which they need the foreign language." (Professional responsible for VET)

## No need for further language skills

"Well, I already know my languages very well and I don't think it's important to learn them even better." (Design Engineer)
"It's enough for me if I can speak two [languages] normally well." (Mechanical Engineer profile E)
"I think with my beginner's knowledge of English I would get by and automatically learn more [in a country] where are languages are used, so it doesn't make sense for me to learn a language." (Carpenter)
"My knowledge of English is enough to make myself understood in the world." (Licensed Electrician)

## Relevance of languages and language skills

"Yes, I speak many languages myself, two native languages to be precise. I had to travel through many countries with other languages and that's how I learned the languages, so it kind of sparked my interest." (Design Engineer)
"The English language is certainly useful if you know it, because you need it almost everywhere." (Carpenter)
"I think that language learning is one of the most important things you can do at school." (Information Technologist)

## Not relevant/unnecessary (also see 3.1.2)

"I don't like learning languages, but I only need Swiss German." (Painter)
"It makes no sense to speak anything other than German in Switzerland." (Design Engineer)
"My professional direction does not require a foreign language." (Licensed Electrician)
Interest acted upon (private initiative)
"I am now learning Spanish with the famous Duolingo." (Design Engineer)
"I am still learning English at home." (Painter)
"My second native language is Romansh from the Lower Engadine. Unfortunately, I have forgotten a lot of things and am now trying to learn them again." (Bricklayer)

Interest not acted upon
"It would certainly be interesting to know other languages. However, for me personally, it takes too much effort to learn one, as it can be a very exhausting process, among other things." (Design Engineer)
"But I am too lazy to learn new languages." (Licensed Electrician)

## Boring/difficult

[Learning languages is] "boring, rarely exciting." (Licensed Electrician)
"It is very difficult for me to learn languages." (Carpenter)

## Lack of time/capacity

"I have enough other things to do, so I can't learn another language as well." (Hairdresser)

## Loss of motivation

"I was very interested in learning languages at primary school, but I didn't get any further with grammar." (Licensed Electrician)

### 5.2 Opinions on language acquisition in VET

Language competences allow access to resources such as work, income, education, health, social services and justice (Schiefer \& van der Noll, 2017). The local language - in our case study German and German dialect - plays an important role and is also described as a fundamental resource for work integration (Fillitettaz, 2021). Additional languages can also facilitate additional connections and access to further resources (Meier \& Smala, 2022). In this respect, English as a business lingua franca is particularly prominent in the literature (Coray \& Duchêne, 2017, p. 22), as are, especially in Switzerland, the national languages. However, languages learned and practised privately in families with migrant backgrounds or by apprentices based on their self-initiative do not feature in education plans (see Part 2).

In this Chapter, we summarise the participants' opinions regarding which languages should be included in the VET programme, and for whom, as well as how. Our results comprise an evaluation of existing language programmes and opportunities at vocational colleges and in companies.

### 5.2.1 Which languages should be taught?

This question is answered based on:

- 92 comments (apprentices) on the theme of Desired languages (phase 1)
- 10 comments (other stakeholders) on the theme of Desired languages (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: German competences were considered a priority, especially for those learning German as a second language. Some welcomed the continuation of courses that support the languages acquired at school, above all English, in all professional groups. Some learners wished for French courses to be included in VET. Additional languages, including those related to migration, were also considered worthy of support. There were also some who saw additional languages as an obstacle to learning German, or those who thought that compulsory schooling was responsible for foreign language and German education.

We identified widely differing and conflicting opinions as to which languages should be taught at bzbs. This refers to German, English and other languages. Some apprentices regretted that they could not continue with their languages from school, and that they would forget them during VET. Others, however, did not want to learn any more languages.

Adequate German language skills were considered a priority by all, including apprentices, teachers and employers responsible for VET. However, some apprentices considered the German lessons at the vocational college to be unnecessary, as they believed they had already acquired the necessary knowledge in lower-secondary level.

Study participants believed that a good knowledge of German was necessary before learning new languages. This view was also shared by some teaching staff and companies in the informal conversations during our study. In this respect, it may have been forgotten that apprentices already had competences in English, French and sometimes other languages at different levels, and used them in their lives and, as this report shows, also at work. This means, German needs to be developed alongside - not instead of other languages. Alternatively, it was argued that German education at lower secondary school is sufficient and did not need to be continued at vocational college. It is interesting that dialect as a language of instruction was also mentioned. Some learners advocated or wished for more dialect to be used in the classroom. There is a risk associated with low exposure to High German in VET: one qualified Carpenter in our case study suggested that it was now difficult for him to communicate in High German due to a lack of sufficient practice.

The opinion that languages that apprentices brought with them to VET could be promoted was also expressed. However, the German and English languages were considered sufficient by some. Sometimes English and French were also mentioned together, as the languages learned in compulsory school that learners felt they gradually forgot during VET, which some apprentices regretted. Other languages, for example those related to migration, were also considered by some to be worthy of promotion. One group also thought that there was no need for foreign language teaching at vocational colleges at all. Reasons
for this were that foreign languages were not perceived as necessary in a technical education or professions, that there was no time for it, that it was a private matter, or that it was the responsibility of lowersecondary school.

## 55 <br> The following quotes from the data collection illustrate the participants' views on which languages should be taught.

## German language support for all

"You learn what you need, just German." (Licensed Electrician)
"Yes, I would keep it [German]. You'll need it for life." (Design Engineer)
"I think it's very important that the local language is mastered properly first and then the next language follows, once this is feasible." (Apprenticeship trainer)
"Apprentices [with other native languages] should always be supported to acquire the locally predominant language." (Vocational college teacher)

## German is not important

"German. I don't think that's necessary any more. Now, for me, I don't need that anymore, because if I've seen the four cases [a grammatical feature of German] over and over again since the fourth grade, you know it at some stage." (Design Engineer)

## Dialect in the classroom

"I would like to speak dialect with all the teachers. Some speak High German." (Licensed Electrician)
"I think dialect should be spoken at school because it's not so formal." (Information Technologist)
"At bzbs, I think it's nice that we can talk and explain things in dialect in class. Certain teachers speak High German when explaining tasks. I don't think that's so good, because we communicate in dialect every day." (Bricklayer)
"You could also speak Swiss German in class if everyone understood it." (Carpenter)

## English and German are sufficient

"English and German are the only two things that count, everything else is not necessary." (Design Engineer)
"I don't feel the need to learn more than German and English, which is covered, so that's great for me." (Information Technologist)

## Continuing English and French

"I think it is a pity that the languages learnt at school are not taught in vocational apprenticeships (tradespeople). Especially these days, it is important to know many languages. In compulsory school you are given a good basic knowledge, but you don't expand on it during your apprenticeship. You quickly forget what you have learned, which is a pity." (Joiner)
"I had the subjects French, English and German in lower secondary school, but not since the beginning of my apprenticeship. I think that English in particular would be very important to be able to communicate worldwide. Even though, I feel I can use my English to communicate more or less." (Carpenter)
"In upper secondary school, I learned English and French. Now it's as if I've forgotten the languages." (Bricklayer)
"I think it would be good to continue to have English, for example. It gets lost if you don't use it often and yet it is often helpful." (Painter)

## Promotion of migration-related languages or origin

"You could learn more languages, e.g. Albanian or Italian." (Hairdresser)
"Limited individual choice, the courses are very expensive for minorities." (Design Engineer)
"Subjects in the apprentices' other languages of origin could be introduced and included in the assessment and graded. Apprentices would feel seen and valued in their whole identity. They would recognise their privately learned languages as a valuable asset and use them more actively for their further vocational training." (Vocational teacher)

## Foreign language teaching not necessary

[Languages] "are not offered, because it is not important at all for our professions." (Licensed Electrician)
"No time - unnecessary." (Bricklayer)
"If you want to learn languages, then you do it in your free time." (Metal Builder)
"Because I don't expect a vocational college for mainly technical professions to offer much in the way of language learning." (Mechanical Engineer profile E)
"I only need Swiss German - that's enough." (Mechanical Engineer profile G)
"I think that many apprentices who are trained in the local trade are glad that foreign languages are no longer part of their everyday school life." (Vocational trainer)
"In joinery, you don't really need any language other than German. Not even for further training inside the profession." (Vocational trainer)
"Language learning must be developed before starting at the vocational college. At lower-secondary level." (Vocational trainer)

### 5.2.2 For whom should foreign language classes be offered?

This question is answered based on:

- 30 comments (apprentices) on the theme of Languages for whom? (phase 1)
- 15 comments (other stakeholders) on the theme of Languages for whom? (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Some voices advocated English or foreign languages as a compulsory subject for all professions. Others feel that languages should only be offered as elective subjects for those who wish to study them.

English as a compulsory subject was desired for individual VET programmes, and there were also voices calling for English for all. This was considered an advantage for those apprentices who chose to complete the vocational baccalaureate after their apprenticeship, as this requires competences in English and French (English only in the Principality of Liechtenstein). Some regretted that foreign languages were not offered as compulsory subjects for all professions, although additional languages were considered by many to be relevant to their profession. Others thought foreign languages should not be offered as a compulsory subject but as an elective, only for those who are motivated or interested.

During the discussions in the second phase of data collection, all professionals working in VET programmes, where English was taught in the curriculum, were in favour of teaching English at the vocational college. Some professionals in companies, operating in the region, reported that English lessons were beneficial to communication with international clients in the Principality of Liechtenstein and in tourist regions. There were also some participants, especially in the industrial sector, who were not in favour of foreign language education as part of VET, as this could be too demanding for some apprentices, and the subject lessons could be neglected as a result.

## - $\quad$ The following quotes from the data collection illustrate participants' views on learner groups for which foreign language education should be provided.

## English for all

"I think everyone should have English as a subject because it is a world language and almost everyone needs it in the workplace. I have also noticed that we have more and more customers in the salon who can only speak English." (Hairdresser)
"Of course there are [elective] English classes at bzbs, but I think English should be a compulsory subject, especially for our profession." (Hairdresser)
"I would like to attend an English course." (Licensed Electrician)
"I think it's a pity that as a carpenter you don't have English anymore, because English is actually important." (Carpenter)
"I would have liked English to be part of the curriculum in the 4th year of the apprenticeship, because English is very important for working life." (Mechanical Engineer profile E)
"We had English in the 1st and 2nd year of the apprenticeship, but after that we unfortunately had no English. I think that's a shame because you forget so much." (Mechanical Engineer profile G)
"But I would be in favour of English being taught in all professional groups." (Vocational teacher)

## Language lessons for everyone

"Languages are extremely important, that's why I think the focus on language learning should be significantly increased in all professions (also in the technical trades)." (Joiner)
"They teach what you need, but not what you want. E.g. other additional languages." (Mechanical Engineer profile E)

## Language lessons as an optional subject

"I think you should only learn languages if you are motivated to do so." (Hairdresser)
"You can only learn a language if you are interested in it." (Licensed Electrician)
"I think if you want to learn a language, it's fine, but if this is mandated by college, it's not so easy to learn it." (Licensed Electrician)
"I think it's cool if you have the motivation to learn a foreign language. If the motivation is not there, I don't think it should be a must." (Joiner)

### 5.2.3 How should languages be taught?

This question is answered based on:

- 74 comments (apprentices) on the theme of Language learning methods (phase 1)
- 39 comments (other stakeholders) on the theme of Language learning methods (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: In terms of language education methods, applied methods, oral and vocationally relevant, as well as technical language teaching was especially favoured by the participants. Methods which were suggested for this include bilingual teaching, trips abroad, and project-based language learning. In this context, level-appropriate language education was also favoured. Some suggested the promotion of language awareness and linguistic tolerance, as well as engagement with the topic of languages more generally.

Comments regarding language learning methods varied. We identified an emphasis on applied and, above all, oral language learning. There was a suggestion that this could be promoted by using methods such as bilingual teaching (meaning subject teaching in a foreign language) or through language study trips and projects. Vocationally relevant, technical language education and level-appropriate teaching was also described as potentially useful. In addition, there was a desire to promote language awareness by focusing more on multilingualism. Promoting tolerance through language education was also mentioned.
Our informal observations at bzbs indicated that project and problem-based methods had already been implemented at bzbs to teach languages in an applied way. For example, apprentices conducted company tours in English for their peers and a teacher; there were also opportunities for trips abroad, during which everyday problems had to be solved in the foreign language. In addition, language awareness activities were conducted in foreign language classes, e.g. reflections on existing language repertoires and what they meant to individuals. However, these activities were only implemented by individual teachers and in individual VET courses, and were therefore only open to a small proportion of apprentices.

During the interviews, host companies mentioned several times that practical relevance and oral communication in foreign language teaching were very relevant for them. Some favoured the implementation of more flexible options at bzbs in terms of teaching time, online options and teaching location. For example, it was suggested that apprentices should be able to attend language courses at other vocational colleges at reduced rates, not just at the bzbs.

The following quotes from the data collection illustrate participants' views on how languages should be taught.

Applied language education
"Too theoretical, little practical focus." (Licensed Electrician)
"I think learning by doing is the best! Conventional language learning at school is rather borderline." (Information Technologist)
"But I would appreciate speaking more English at school, so that you can use and understand the language better when dealing with people and in everyday life." (Mechanical Engineer profile E)
"Give appropriate tasks where the apprentices have to use the foreign languages." (Vocational trainer)
"There should also be a practical part linked to the foreign language. However, the emphasis in marking must not be on language skills, because there are many students who would resist if it was graded." (Secondary teacher)

## General focus on oral communication

"I think that speaking is more important than grammar." (Design Engineer)
"In my opinion, the oral aspect of a language is most important. The best way to do this is in a group, which is what school is good for." (Joiner)
"I think that at least in English classes there should be more emphasis on speaking only English and more language tasks should be incorporated." (Mechanical Engineer profile G).
"At bzbs (...) not so much attention is paid to speaking, I think that's a bit of a pity." (Information Technologist)
"Additional conversation classes." (Vocational college teacher)

## Bilingual teaching

"And I would also find it cool if you had at least the technical knowledge subject, or something like that, in English and the general education subject [ABU] in German, or something like that." (Hairdresser)
"Yes, maybe bzbs should consider teaching certain subjects in other languages." (Information Technologist)
"Language use should be built into lessons much more. Even in technical trades, for example, part of the teaching could be done in English." (Joiner)
"At the vocational college, have more lectures in the foreign language and keep the whole duration of the lessons in the foreign language." (Vocational trainer)

Language study trips, exchanges and international projects
"The opportunity to do a language study trip. I would also find that mega exciting." (Design Engineer) "It's best if you travel there and have to communicate." (Licensed Electrician)
"International events, through exchange schools, through language learning opportunities." (Cultural mediator)
"International projects at school, exchanges with international technical schools." (Vocational trainer)
"Perhaps more could be achieved with a language study trip." (Vocational trainer)
"Language study trips during training." (Vocational college teacher)
Teaching languages in a more profession-specific way
"Should have a connection with everyday life and work." (Mechanical Engineer G)
"So, English is now mainly work-related, i.e. technical English. And I find that quite good, because otherwise I would have been a bit lost there." (Design Engineer)
"The English we have is very general and not at all work-related." (Design Engineer profile M)

## Expand technical vocabulary (especially English but not exclusively)

"So, I would definitely keep technical English. Because that's what I see most in our profession, I'd say it really adds a lot." (Mechanical Engineer profile E)
"Extend existing technical English." (Apprenticeship trainer)
"I only have 2 semesters of Technical English in my apprenticeship. I think we should have more." (Mechanical Engineer profile G).
"If, for example, you can now opt out of language and communication [subject] and instead choose Bosnian or Bosnian culture, even people who come from a Bosnian household might still be able to use this language in the technical field. Because we are already bringing a prior knowledge of this language from home, from childhood. And that way you can refine them a bit in the technical sense." (Design Engineer)
"The lessons could be a bit more intensive. Maybe a lesson in more technical English. Or just English in general." (Design Engineer)

## Lessons not challenging enough

"I find the English lessons at bzbs too easy for my level of English." (Information Technologist)

## Promoting language awareness

"Additionally, they should be made aware that mastering their language of origin is a valuable skill and that it is worth learning more in this area." (Vocational college teacher)
"Our industry, e.g. in construction, is not known enough for language skills." (Bricklayer)
"I also think it's good to empower young people who come from a bilingual household." (Cultural mediator)

## Addressing the issue of languages and multilingualism more

"I think that too little is done regarding the topic of language learning at bzbs. There is too little talk about foreign languages." (Hairdresser)
"I think it could be made more multilingual and support multilingual people better." (Design Engineer)
"A foreign language education field [cross-curricular theme] should be introduced." (Vocational college teacher)
"Encourage the enjoyment of foreign languages." (Professional responsible for VET)

## Promoting tolerance through language experiences

"If someone is able to have a good experience with a foreigner at school and at work, he/she can become more tolerant of everything that is foreign. This is important for a colourful society." (Secondary school teacher)

### 5.2.4 What should language learning look like in the host companies?

This question is answered based on:

- 81 comments (apprentices) on the theme of Language learning methods (phase 1)
- 9 comments (other stakeholders) on the theme of Language learning methods (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Apprentices proposed that companies should take greater advantage of the opportunities for language use in-house, and to expand them where possible. A desire was expressed for companies to value languages more, where this is not already the case. However, there was also the opinion that the responsibility for language education ought to lie only with those companies that have a need for it.

With regard to language education in the host companies, the importance of practical relevance was emphasised. For example, language study trips, company exchanges or maximising international contacts were mentioned. Others felt that languages should be promoted specifically in companies where a respective need exists, thus placing the responsibility for language education with companies. There was also a desire for companies to value languages more. This kind of appreciation was associated with a potential positive impact on the recruitment of apprentices with language skills.

The following quotes from the data collection illustrate the participants' views on what language education in VET should look like.

Develop opportunities for use in the host company
"Maybe promoting [languages]. In other words, encouraging apprentices not only specifically to do their work, but also to do more culturally. Because I think we joiners are here in our own world, and that's a pity." (Joiner)
"Company exchanges. That would definitely be a good suggestion, if you could look at the plant in Malaysia or in Romania for example, then that's very interesting. Then you would also have the opportunity to use the language." (Mechanical Engineer profile E)
"It's a bit disappointing when you have the opportunity to work in a big company that operates internationally, but you don't have anything to do with the other companies, in order to use your own communication skills." (Design Engineer)

## Study trips abroad, company exchanges

"In the company you could, for example, invite apprentices from other locations or send apprentices to other locations - so apprentices can practise English, for example, because they are forced to communicate in English." (Apprenticeship trainer)
"Language courses during the training." (Vocational trainer)
"Visiting companies abroad." (Vocational college teacher)

## Appreciate employees' languages

"Trial candidates might be more interested in the company if they see that all languages are valued." (Apprentice from phase 2)
"I think it's a positive thing when there are people who know many different languages. But it should not be exploited." (Mechanical Engineer profile G)

Promote languages at host companies as needed
"Other languages that a company needs should be fostered by the companies, rather." (Hairdresser)
"If it is important for the company, the company should promote the language." (Vocational trainer)

### 5.3 Evaluation of the existing language learning provision

At bzbs, all technical VET students attend German lessons as part of their general education classes (ABU). Standard German is the predominant language of instruction used in all subjects (except foreign language classes). Three occupational groups in our sample also have English or Technical English classes included in the curriculum: Information Technologists, Design Engineers and Mechanical Engineers. Language learning workshops are also offered, in addition to elective language courses for German, English, French, Italian and Spanish (for more details on language learning opportunities at bzbs, see 1.2).

### 5.3.1 How are the language learning opportunities at bzbs rated?

This question is answered based on:

- Responses to questions 22.3, 22.4, in the questionnaire for apprentices (phase 1: quantitative)
- 136 comments (apprentices) on the theme of Satisfaction with bzbs' provision (phase 1)
- 7 comments (other stakeholders) on the theme of Satisfaction with bzbs' provision (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: the majority of the apprentices were either satisfied with or indifferent about the language education offered at the vocational college. Some apprentices report that they were aware of, and made use of, the language learning opportunities at bzbs, while others stated that they were not aware of them. Therefore, some regretted the perceived absence of language learning opportunities.

According to the questionnaire, $59 \%$ of the apprentices overall were rather/very satisfied with the language learning opportunities at bzbs (see Figure 13). A small group was not satisfied (8\%), and many expressed no opinion on this issue and chose 'neither/nor' as an answer (32\%). Mechanical Engineers E (72\%) and G (66\%) and Design Engineers (68\%), who had compulsory English classes, were the most satisfied with the language learning opportunities at bzbs. There was less satisfaction with the opportunities at bzbs amongst Joiners (40\%), Licensed Electricians (51\%) and Carpenters (51\%). The thematic analysis showed that in our sample there were both, apprentices who were satisfied that they had access to foreign language education, and those who were glad that foreign languages did not form part of their programme. We will take this finding into consideration when formulating recommendations.

Figure 13: Satisfaction with language learning opportunities at bzbs


The analysed comments can be divided into three categories: Firstly, positive feedback on the existing provision, secondly, dissatisfaction with it, and thirdly, comments regarding optional language courses.

Positive feedback related to teaching, to language learning opportunities in general, and to German and (technical) English classes in particular. Dissatisfaction related to the lack of foreign languages in the curriculum and pedagogical approaches (not applied enough, and not tailored to the appropriate level). There were also some apprentices who missed English and apprentices who generally appreciated what was on offer. While some stated that they had been informed about the elective language subjects, others stated that they had not received clear information about it. This was noted with surprise by teachers in our informal discussions in phase 2, as all apprentices were informed of this in the first week of their VET programme. However, it seems that this communication was not enough to convey this information in a sustainable way. In addition, the time at which the classes are held (evening) was described as inconvenient. During the discussions in phase 2, host companies often mentioned that the information about the exchange programmes and language learning opportunities offered by bzbs was not easily accessible. Some professionals also confirmed that they had not known that language learning opportunities existed at bzbs.

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The following quotes from the data collection illustrate participants' views on the language learning opportunities at the bzbs.

## Positive feedback on language-education opportunities in general

"I am very satisfied with the languages offered at BZBS!" (Information Technologist)
"If someone wants to learn a language, there is good support here." (Bricklayer)
"I'm satisfied because at the moment I'm learning exactly the languages I want to be able to use." (Information Technologist)

## Positive feedback on teaching in general

"Anyway, my teacher is doing really great. Yes." (Mechanical Engineer profile G)
"I think the way the teachers do it is extremely good." (Design Engineer)

## Regrets about lack of English

"Unfortunately, as a hairdresser I'm not learning any additional languages at bzbs, which is a pity because I would still find English important, for example." (Hairdresser)

## General satisfaction with the language learning opportunities at bzbs

"I am satisfied with the language courses offered at the bzbs because I am taking an English course." (Metal Builder)
"I think it's good that there are language courses at bzbs. And that it is cheaper for apprentices. And I think it's good that it exists at all. Because there are other schools where it is not like that." (Joiner)

## Knowledge of the language learning opportunities

"I don't attend language lessons, but I keep reading that there are courses. I think that's good." (Painter)
[I am satisfied] "Because a lot of courses are offered at a fair price." (Mechanical Engineer profile E).

## Lack of knowledge about the language learning opportunities

"I don't know what's on offer." (Carpenter)
"I think how the language courses are organised at BZBS is a bit unclear." (Design Engineer)
"Information could be a bit better for those who are interested." (Hairdresser)
[I am not satisfied,] "because I wanted to attend courses on languages that were not available - very disappointing-1 star." (Licensed Electrician)
"Because there are languages I would like to learn or get better at, but there is no provision for them." (Information Technologist)

## Inconvenient time

"A lot in the evening. Lunch is better, because many hobbies take place in the evening." (Mechanical Engineer profile G)
"I would like to know a foreign language better, but I don't have time to go to school in the evening." (Carpenter)

### 5.3.2 How are the opportunities for language learning and use in the companies rated?

This question will be answered based on:

- Answers to questions 8.1, 22.1, in the questionnaire for apprentices on the theme of Satisfaction with opportunities in companies (phase 1)
- 58 comments (apprentices) on the theme of Satisfaction with companies' provision (phase 1)
- 3 comments (other stakeholders) on the theme of Satisfaction with companies' provision (phase 2)
- Informal feedback from other stakeholders (phase 2)

Short answer: Over $30 \%$ of the apprentices surveyed had the opportunity to learn languages at work, either formally, through language courses offered, or informally, through using languages at work or abroad. Others did not have this opportunity, which some regretted and others were happy without it.

On the question of whether language learning opportunities were available at work (see Figure 14), overall $\mathbf{3 1 \%}$ of apprentices reported that they were able to learn one or more additional languages at work. This was particularly true for the two occupational groups that attended compulsory English classes at bzbs, and presumably work predominantly in host companies with international operations: Information Technologists (69\%) and Design Engineers (62\%). Interestingly, this was also the case for $\mathbf{5 6 \%}$ of Bricklayers, for whom the curriculum did not include compulsory language subjects in addition to German. This relates to the results in Chapter 3, which showed that Bricklayers in particular were more likely to work in multilingual environments. The occupational groups that agreed least with this statement were Joiners (5\%) and Carpenters (6\%), most likely because they worked in a more monolingual, German work environment (see Chapter 3).

Figure 14: Language learning opportunities at work


In terms of satisfaction with language learning opportunities at work (see Figure 15), 61\% of apprentices were rather/very satisfied. Only a relatively small group was not satisfied with their respective language learning opportunities (9\%). We noted that $30 \%$ of the apprentices appear to have no opinion on this issue and chose 'neither/nor' as their answer.

The difference between the occupational groups was significantly smaller here than in other questions. The perceptions of language learning opportunities at work and at bzbs were also very similar. The greatest satisfaction with language learning opportunities at work was found among Bricklayers (73\%) and Mechanical Engineers profile E ( $70 \%$ ). Even $48 \%$ of Carpenters (with the lowest level of agreement) were rather/very satisfied. In the case of woodworking occupations, we found that apprentices had relatively few language learning opportunities, and that some were happy about that. Bricklayers, who were the most satisfied with their opportunities, may be able to learn languages from and with others in multilingual work environments, and many seem to welcome this.

Figure 15: Satisfaction language learning in the companies


The thematic analysis of the comments showed that workplaces offered informal language learning opportunities (with staff and customers), as well as formal learning opportunities. Statements made in discussions with the host companies in phase 2 confirmed that companies with international operations in particular encouraged practice-oriented English skills. In addition to traditional learning opportunities, flexible, web-based, modular or informal opportunities such as English lunches or language half-days were also mentioned. Apprentices also highlighted opportunities to use their languages in the workplace and in exchange projects, some of which were either organised by the college, by the host companies or by external institutions. We also found that some regretted the lack of language learning opportunities in the workplace, while others were quite content without them.

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The following quotes from the data collection illustrate participants' views on language learning and application opportunities in the companies.

## Formal language learning

"We have English classes once a week in-house." (Design Engineer)
"We can practise English with a teacher one day a week for about 2 hours." (Mechanical Engineer profile E)
"And you can go there for free and it's just part of the deal, offered by the company, quite good courses
on all kinds of things to do with us and our company. From English courses to Japanese and all the cultural stuff, it's explained there." (Design Engineer)
"My workplace supports apprentices who want to improve their language skills." (Mechanical Engineer profile G)

## Informal language learning

"I learned a lot of Swiss German [during my apprenticeship]." (Bricklayer)
"[I am learning] Turkish through the other Turkish employees." (Mechanical Engineer profile E)
"We sometimes have English-speaking customers, and this allows us to learn a bit and communicate with them as well." (Hairdresser)
"I had a Mexican colleague, but unfortunately he went back to Mexico. I mainly learned Spanish from him." (Mechanical Engineer profile G)

## Language use opportunities

"By using the language, you consolidate your skills, and you don't lose out on the use of the language." (Design Engineer)
"In the company [...] languages are learned/improved through use." (Design Engineer)
"I am satisfied with the use of the language because in the workplace we use the languages, we have a lot." (Bricklayer)
"And on the construction site you automatically learn [languages] while working - it's unconscious." (Bricklayer)

## Trips abroad

"In my company you have the opportunity to work in Russia or China for a while, which also gives you the chance to learn the language." (Mechanical Engineer profile E).
"English: exchange programme during the apprenticeship in America lasting 3 months." (Vocational trainer)
"Apprentice exchange abroad" (Vocational trainer)

## No opportunity to learn a language

"Unfortunately, you don't get the opportunity to learn a language at work." (Mechanical Engineer profile E)
"No one speaks English at work, so I can't use my English either." (Painter)

## Satisfied without language learning opportunities

"I'm glad I don't have foreign languages anymore." (Joiner)
"I am very satisfied because I don't want to learn another language anyway and I don't need it." (Carpenter)


## 6 Conclusion and recommendations

This report forms part of an international cooperation project between a vocational college in Switzerland and a university in the UK ( $\mathbf{m}$-voc project - Multilingualism in Vocational Education). From the results of our case study, we have developed scientifically supported and practice-oriented recommendations aimed at educational institutions, host companies and research bodies, as well as other stakeholders.

In the first phase of our project, we surveyed 674 learners via a questionnaire, and interviewed 11 of them. An initial analysis was presented to stakeholder groups in the form of an interim report (Meier \& Styger, 2022). In the second phase, we discussed our initial results with vocational professionals responsible for VET, qualified professionals, and other stakeholders at regional and international level (see Chapter 2). Through the additional analysis of qualitative comments, we collected in phase 1 (apprentices) and 2 (other stakeholders), we were able to develop deeper insights and identify possible interconnections, which we will summarise and interpret in this Chapter.

At this point, we return to the key question asked by Prof. Georges Lüdi of the University of Basel in 2010, which we mentioned in Chapter 1. In view of the increasingly multilingual nature of Switzerland, he asked whether "sufficient importance is accorded to multilingual education in vocational colleges, especially in courses of a technical nature" (2010, p. 51, our translation). Our work confirms that more emphasis could indeed be placed on multilingualism in VET in the technical and industrial sector, at least in the region covered by our case study, and our recommendations are made accordingly.

In Chapters 3 to 5 we have noted that the situation regarding multilingualism in technical VET programmes is very complex. It is therefore essential to consider respective contexts and other relevant factors in detail before any changes are envisaged.

In the following, we summarise the main findings on the role of multilingualism in technical VET, and set out corresponding recommendations for practice in the case study region and for research.

### 6.1 Findings from our case study

The main findings of our case study relate to the learners' linguistic backgrounds and repertoires (Chapter 2), the opportunities to use languages (Chapter 3), perceived linguistic realities (Chapter 3), attitudes (Chapter 4), as well as interest in and opinions about language learning (Chapter 5). Our findings suggest that languages play an important role for the learners in our case study: on average learners can use three languages (see Chapter 2), and many learners use their language repertoire in their jobs in a variety of ways (Chapter 3). Thus, languages can take on operational, social, emotional or cognitive functions (see Chapters 3 and 4).

### 6.1.1 Language background, practice and apprentice needs all vary

Regarding guiding question 1 (What languages do apprentices bring with them to VET?), we found that the apprentices in our case study reported language skills in 50 languages. In addition to High German and dialect, these comprised English and French, which learners brought with them from lower-secondary level, as well as another 47 languages. These languages were either migration-related languages or languages acquired for private interest or through stays abroad. A quarter of the apprentices in our sample reported being able to use four or more languages. The level of proficiency in these languages varied greatly. We nevertheless assume that all apprentices had resources in more than one language, and that there are likely to be no monolingual apprentices in technical VET.

In response to guiding question 2 (How do learners develop and use their languages during VET?), our study shows that some learners used their diverse language skills and language mediation competences in different work situations for the benefit of companies. The willingness to communicate verbally and linguistic sensitivity seemed to play an important role. However, not all apprentices had the opportunity to develop these skills, which are important for life in a globalised society. Access to multilingual experiences and the opportunity to develop language awareness seemed to be related to the home and private environment as well as motivation and attitudes. Our recommendations (see 6.2) are based on the finding that the majority of apprentices have a general, albeit varying, interest in languages.

### 6.1.2 Language practices and company needs vary

Regarding key question 3 (What role do languages play in the linguistic socialisation of apprentices in different occupations?), our study shows that linguistic needs were perceived very differently depending on the occupational category or company. We identified trends in certain sectors: while workplaces of carpenters' and joiners' were more likely to be perceived as monolingually German, industrial companies tended to be perceived as international with an English orientation, while construction sites were perceived as multilingual. However, there were groups of apprentices in all professions we studied, who perceived their working environment as either multilingual or monolingual. A majority of the respondents in our study believed that German in particular, as well as English, were important for their professions, but several other languages were also rated as relevant. Based on our findings, a future-proof curriculum would have to meet the diverse language needs of professional sectors, companies and learners

Company language requirements seemed to be influenced by workplace and personal attitudes towards languages, as well as the prevailing linguistic realities in society. While some of our study participants perceived openness, tolerance and respect towards people who spoke other languages in their companies, others perceived linguistic prejudice and discrimination. Those participants in our case study who use two or more languages at work, applied these internally and externally at work; namely to get things done (operational), to work effectively in a team or in contact with clients (social), to promote a good working atmosphere and to respect multilingual identities (emotional), as well as to make sense of information (cognitive). However, our results show that multilingualism was also associated with misunderstandings, exclusion and discrimination. We conclude that language competences alone are not enough to enable effective and constructive communication at work, but willingness to communicate and linguistic sensitivity, as well as mediation skills, are also required.

The development of language competences in VET is regulated in Switzerland by the Swiss Vocational and Professional Education and Training Act (VPETA, 412.10) and by the Vocational and Professional Education and Training Ordinance (BBV, Article 12.2). In principle, these directives envisage a second national language or another foreign language in VET for all occupational fields. An interpellation by Swiss Federal Councillor Ignazio Cassis led to clarification of the legal situation with regard to language education in VET: "Whether a second language is included in the education ordinance of an occupation, and which language this is, is regulated by the professional organisations according to their needs". (Die Bundesversammlung, 2015, our translation). With regard to guiding question 4 (What does appropriate language education in VET look like?), our findings show that language needs were perceived very differently in the respective companies, and that that it largely depended on the company and the work situations rather than on the occupational field more widely. Based on our study, it is therefore difficult to see what criteria the professional organisations might use to decide which languages should be included in the educational plans of respective VET branches.

### 6.1.3 Access to and opinions on language education provision in vocational college vary

At bzbs, language competences are only developed, evaluated and accredited in German, and for some professions also in English and French. Other language skills, as well as mediation or global skills, which can represent real added value for companies (British Council, 2013), are only selectively supported at bzbs through individual projects or teachers, and are not systematically addressed, developed, supported and/or recognised.

We found that there are considerable differences between VET occupations, in terms of how language education provision is determined and implemented, namely guided by individual VET curricula, education plans, ordinances and official requirements. The unequal access to language education in VET seems to express normative attitudes in terms of which occupations are considered internationally oriented and which are locally oriented. In addition, the current language policy situation signals that German and English, in particular, are useful professionally, while competences in other languages as well as mediation skills might not be considered useful and/or worthy of development, or only marginally so, even though they are frequently used in everyday working life. There was also a wide range of opinions among respondents as to which apprentices would benefit from language education, which languages were required and how languages should be taught.

### 6.2 Recommendations for practice

Our recommendations are guided by the question of what changes are necessary and/or possible to prepare all apprentices in technical VET for a working life in today's and in the future world of work. As described by official guidelines and research, the aim of VET is to train skilled workers who are flexible enough to work effectively in a range of companies in the future, and who can contribute to solving problems in different areas of life. In the context of Vocational Education and Training 2030 (Berufsbildung 2030, see SBFI 2020), the importance of action-oriented competences and equal opportunities, as well as information and guidance, were highlighted as important components (Feller et al., 2020). Our recommendations build on these components by suggesting how promoting multilingualism, raising language awareness, offering opportunities for mobility, as well as adequate information flow and guidance could be considered, or reconsidered, as well as how any changes could be implemented either in the short or longer term.

Taking into account the great diversity of linguistic experiences, perceptions and opinions, we established, as well as the current state of knowledge in language-education research, traditional or occupation-specific foreign language provision alone seems unable to meet the complex needs. Building on existing practices in the region of our case study, this reports points in a new direction. In particular, it proposes multilanguage coaching (see recommendation 1) and consistent cross-curricular language awareness activities (see recommendation 2). We also propose an expansion of mobility experiences (see recommendation 3) and an improved information flow and guidance (recommendation 4). We elaborate our recommendations below with the help of findings from research as well as our own professional experience in language education.

### 6.2.1 Assess and expand bzbs language provision (Recommendation 1)

According to our findings, apprentices in our case study had several years of language learning experiences (primary and lower-secondary level, with family and privately) and a majority also had a basic interest in language learning. However, they did not seem to have a comprehensive knowledge of the existing language programmes provided alongside the school curriculum. Some apprentices reported lacking opportunities to use and/or develop additional languages in both their company and the vocational college. We recommend, as a first step, a survey of the existing opportunities and, as a second step, an examination of a possible expansion of the in-company and in-school language development opportunities.
A) Implementable in the short term:

Vocational college: We recommend a survey of existing opportunities and projects that enable language learning and use for German as a first and second language, as well as English and other languages. As far as we are aware, opportunities do exist as part of compulsory education (e.g. foreign language lessons, guided tours or presentations in a second language, work with multilingual vocabularies, etc.) or as extracurricular courses (e.g. language courses in the evenings and on Saturdays, language support courses, learning workshops, including at other vocational schools in the canton), but there is no overview to date of what is accessible to apprentices. In order to assess the existing provision, and potentially introduce new opportunities in a needsbased way, we propose a future-oriented needs analysis in collaboration with learners, the host companies and the professional associations.
Companies: We recommend that existing language learning opportunities are made accessible to learners, where possible, in coordination with partner companies. Work situations that allow or require the use of language competences should be recognised and made visible. Apprentices could then be encouraged and supported to make use of these opportunities in the company or in work situations. We propose that companies involve apprentices in cross-linguistic projects, e.g. in assisting visitors. Language learning opportunities in the workplace and at the bzbs should be discussed with learners.

## B) Implementable in the longer term:

Vocational college: We recommend an exploration of the feasibility of bilingual and multilingual education. Any implementation of such schemes would have to be scientifically supported, while the insights from the two bilingual pilot projects, which have been carried out in the past at bzbs, should to be taken into account. Since language needs and motivations vary greatly (depending on the work environment and the apprentices' personal backgrounds), we conclude that there is a need for a novel pedagogical approach to language education, which we refer to as multi-language coaching. Such an approach, which to our knowledge does not yet exist, would be envisaged as an elective subject, in which learners in VET would define and pursue individual language goals at different levels and in different languages respectively. The task of the coaches would be to support and advise the apprentices in groups on how they can independently work on these learning goals and which methods and tools may be best suited for this. Participants could support each other in this process. Such multi-language coaching sessions could take place on-site and/or online. In order to enable successful implementation, we propose the elaboration of a pedagogical and methodological concept, as well as the trialling and scientific evaluation of a respective pilot project.
Companies: To enhance opportunities for learners to use and develop their language competences in an applied way, new possibilities could be created, e.g. setting up projects with other language regions, or learners could participate in international fairs.

## Explanations for recommendation 1:

According to a report on language acquisition in VET, respective programmes should aim to maintain, promote and expand foreign languages that apprentices bring with them from compulsory schooling (WBF 2017). In the educational plans for the technical VET programmes studied in our project, however, only English is envisaged, and not as a compulsory subject for all. Some of the apprentices in our case study regretted that the languages they developed in their previous schooling was forgotten during VET. An inventory and making visible existing voluntary and elective language learning opportunities at the bzbs could inspire learners from all VET professions to pursue their language interests more.

As far as teaching methods are concerned, practical relevance and applied language learning are recommended by Feller et al. (2020) in the context of Vocational Education and Training 2030 (Berufsbildung 2030, see SBFI, 2020). Our findings also emphasise the importance of creating a close relation between the language education in technical VET and the respective occupation. This is also in line with the legal directives in Switzerland, as language education ought to focus on application in the respective everyday working life (Die Bundesversammlung, 2015). Applied and work-related language education was also generally welcomed or recommended by participants in our study.

Bilingual education was also suggested by some of our study participants. This would provide applied language education by using another language (often English) as the language of instruction to teach content in some subjects. The legal basis for this was created in 2004 for Switzerland and the Principality of Liechtenstein. However, very little use has been made of this opportunity throughout Switzerland (Die Bundesversammlung, 2015). At bzbs there was also a pilot project to introduce English as the language of instruction in a technical VET course, but this was not continued. To our knowledge, only a small number of teachers at bzbs currently use English as the language of instruction for individual teaching units. We know from research that bilingual programmes are considered promising in a variety of contexts, but they need to be carefully assessed, introduced and monitored (see Brohy \& Gurtner, 2011, for related research from Zurich).

The majority of these governmental directives and pilot projects focus on the promotion of English competences. However, a large number of the 26 languages that the learners in our study heard or spoke in the companies are not considered in the official documents and do not form part of any education plans. In research, increasingly, multilingual didactic approaches are being developed in language education (e.g. Furlong \& Bernaus, 2017). This should be taken into account also in VET, given the language diversity of learners evident in our case study.

Since the language backgrounds, needs and motivations of the learners in our case study are very diverse, we propose a new didactic approach in the form of multi-language coaching for VET, based on principles
from multilingual education, autonomous learning theories and digital learning. Approaches to language coaching exist already, but they tend to support the learning of one foreign or second language (see e.g. Berndt \& Deutschmann, 2014). To our knowledge, appropriate multilingual approaches still need to be developed (see also 6.3 Recommendations for research).

### 6.2.2 Raising and expanding language awareness (Recommendation 2)

Not all apprentices in our case study had the opportunity to develop and/or make use of any language awareness in VET. In view of today's globalised world or work, however, we recommend that all apprentices have opportunities to expand and strengthen not only their linguistic repertoires but also their language awareness and mediation skills.

## A) Implementable in the short term:

## Vocational college:

We propose to compile and coordinate those language awareness activities, which are already implemented by some bzbs teachers. Ways of raising awareness could include reflection on language repertoires in foreign language or German lessons, or keeping a language portfolio for upper-secondary level (Sprachenportfolio III, 2010), which builds on the Common European Framework of Reference (CEFR, 2021). Activities such as these can make a person's language repertoire visible and reduce potential deficit views that learners may have. In this process, language aspirations and current language education opportunities could be discussed, and apprentices could be encouraged to participate in any such opportunities. In addition, languages could be made visible in the school building, thus displaying appreciation for multilingualism and indicating that it is a topic of relevance in the college, e.g. through multilingual signs, exhibitions or information on international projects.
Companies: The language repertoire of apprentices could be recognised more consistently in host companies. For example, some companies record the language competences of their employees and apprentices so that they can use them as a resource when needed. Apprentices' language competences could also be integrated into educational reports (individual skills assessment), or discussed and recognised on the basis of a language portfolio created in the vocational college (Sprachenportfolio III, 2010). Professional development reviews conducted with VET learners could address language aspirations, as well as internal and external language development opportunities. Companies could also emphasise the value of employees' language competences in job interviews and mention the opportunities to learn and use languages in the workplace, so that applicants realise that their languages are valued and that there are opportunities to expand their existing language repertoire, including German as a second language.

## B) Implementable in the longer term:

Vocational college: We recommend the elaboration of a cross-curricular project to develop and evaluate language awareness, as well as mediation skills. This could be reflected upon and evaluated using the descriptors for mediation skills (CEFR, 2020). Respective projects concerning cultural and linguistic diversity could support the development of language awareness. Furthermore, the vocational college could widen their support for apprentices with German as a second language so that companies are more likely to employ apprentices with migration backgrounds. This could make sense in view of the shortage of skilled workers. In addition, the vocational college could support companies in assessing the German language competences of applicants, who are learning German as a second language. Any supporting materials should be easily accessible for the companies.
Companies: We propose the elaboration and implementation of a language awareness concept to ensure professionalism. We would expect this to support teamwork and a good working atmosphere, as well as promote the recruitment of apprentices with migrant backgrounds. A discussion of language competence development in professional development reviews with VET learners could further support the development of language awareness. In conversations with apprentices, communication successes and problems in multilingual work situations could be reflected on and discussed. In order to counter prejudices and to establish multilingualism as a professional skill, diversity training for supervisors, staff and apprentices could be beneficial.

## Explanations for recommendation 2:

Some apprentices in our study described multilingual-oriented industries and companies where apprentices with and without a migration background felt comfortable and integrated. However, we also found that there were occupational sectors and companies where there are few employees with migration backgrounds and, thus, few opportunities to develop multilingualism, language awareness and mediation skills. On the one hand, this means that some apprentices will have limited experience of working in multilingual and multicultural work situations, which may limit their future prospects. On the other hand, there is a possibility that respective professions or companies may seem less attractive for young people with migration backgrounds if they perceive an exclusively German reality, or that they may be discouraged from accessing certain professions due to language criteria.

In view of the shortage of skilled workers in the technical and industrial sector, we envisage language awareness training of the kind we propose to help attract future generations of skilled workers to the technical-industrial sector and prepare all apprentices for working life in a globalised world. In this regard, we refer to Stamm (2013) who called for increased recruitment of apprentices with a migration background as early as ten years ago. Our study confirms Stamm's statement that apprentices with migration histories can add real value in a globalised labour market. It should be taken into account that people with refugee status between the ages of 16 and 35 can enrol in Swiss VET programmes.

Language awareness and mediation seem of particular interest, given our finding that multilingualism can be associated also with misunderstandings, prejudices, discrimination and tensions. As we know from research, successful cooperation in multilingual teams cannot be taken for granted (Kulkarni \& Sommer, 2015), therefore we recommend a broader focus on language awareness and mediation in VET, e.g. using the CEFR descriptors, including those for mediation or facilitation skills (see COE, 2023). Diversity training conducted within the framework of a culture of inclusion is also suggested in this regard (Kulkarni \& Sommer, 2015). The aim is for group members to feel respected and to feel that they belong to a group in which bilingualism/multilingualism is recognised. Training of this kind should also make participants aware of the forms and consequences of discrimination. Due to the differences we found in learner attitudes and their willingness to mediate in multilingual teams, it is clear that there is a need for action in VET, at least in the catchment area of our case study.

### 6.2.3 Survey and expand exchange and mobility opportunities (Recommendation 3)

In our case study, some learners stated that they benefited from mobility projects in terms of language and subject knowledge, as well as personal development. The expansion of such opportunities was suggested by many participants in our study. In addition, our study showed that not all apprentices felt they were adequately informed about these opportunities, and the uptake of these was relatively low.
A) Implementable in the short term:

Vocational college: We recommend the establishment of a regularly updated, easily accessible overview of exchange, mobility and other language education opportunities in Switzerland and abroad, e.g. currently organised by Movetia, Rotary, the Office for VET and Career Guidance of the Principality of Liechtenstein or by professional associations. An overview of this kind would support interested apprentices and teachers in the planning of future pursuits.
Companies: We recommend a survey of existing sector-specific and non-sector-specific mobility opportunities, internal and external to the companies. In addition, we propose that companies discuss language development opportunities with learners and support them if they are interested.

## B) Implementable in the longer term:

Vocational colleges and companies: We recommend the expansion of exchange and mobility opportunities. Cooperation between companies, other vocational colleges and the persons responsible for exchanges in the Canton of St.Gallen and the Principality of Liechtenstein should be promoted in this respect. Particular attention should be paid to the inclusion of vocational sectors that do not incorporate foreign language education in their respective curricula. Mentoring with the help of language awareness activities, as explained above, should also help apprentices
become aware of the competences they can acquire by participating in exchange or mobility projects.

## Explanations for recommendation 3:

Although the 2017 WBF report recommends that "schools and host companies [in Switzerland] should intensify their language education and promote a culture of multilingualism and mobility" (WBF, 2017, p.3, our translation), only a small group of VET learners (1.2\%) tend to participate in mobility projects compared to young people in general education schools (31\%), e.g. Gymnasium ${ }^{13}$ (Movetia, 2020). In this context, it should also be mentioned that the possibility to participate in a mobility project during VET may well increase the attractiveness of an apprenticeship for young people.

Participation in international mobility programmes during VET can, according to research, be associated with the development of soft skills such as teamwork, language and communication skills, cultural understanding, adaptability and openness (Handayani \& Wienanda (2020). We expect that particularly those apprentices who have limited opportunities to experience multilingualism and/or develop such soft skills at vocational college or in the host company would benefit from an extended mobility programme.

When introducing a more comprehensive mobility programme, careful preparation and follow-up would be particularly important. Guidelines designed for VET are available for this purpose (ECML, 2015). With the help of this kind of framework, learners can be made aware of their acquired skills, including critical thinking. Without any structured reflection and follow-up discussions, however, there is a risk that possible negative experiences may reinforce prejudices instead of reducing them (Meier, 2010).

### 6.2.4 Coordinate flow of information and communication (Recommendation 4)

Based on the feedback participants offered on the current provisions, we know that not all companies and apprentices at bzbs were sufficiently informed about the available language learning opportunities at bzbs. Certain occupational groups also seemed unaware of mobility projects that were available to apprentices. In order to comprehensively inform and adequately advise all apprentices, teachers and companies about opportunities to learn and use languages, we propose a more consistent coordination and sharing of relevant information between apprentices, vocational colleges, companies, associations and organisations in the world of work.

## A) Implementable in the short term:

Vocational college: We recommend the systematic recording and publication of all voluntary language development opportunities and mobility projects that are available to bzbs students. This information should be accessible on the bzbs website with details of costs, requirements, duration and contact persons. This information could also be disseminated by using info panels, posters, or flyers with QR codes in the college buildings. These opportunities should be communicated regularly through channels such as newsletters, social media, emails or vocational trainers' conferences. Care should be taken to ensure that both learners and companies are made aware of these opportunities once or twice a year at the same time. Furthermore, presentations of former participants or exhibitions in the school building may well enhance the status and visibility of mobility opportunities. Interested learners from all professions as well as companies should have easy access to an overview of the existing opportunities. Such information should also be passed on to VET career guidance bodies, VET preparation and integration classes as well as to lower secondary schools; so that all those involved are aware that linguistic and intercultural competences can be (further) developed in VET programmes.
Companies: We recommend that companies notify the bzbs of language development opportunities and mobility projects offered by professional associations that are available to external students; so that they can be included in the overview of opportunities described above. These can be company-internal or sector-specific opportunities. We propose that companies make apprentices regularly aware of opportunities, as well as encourage and support them to access these.

[^10]
## B) Implementable in the longer term:

Vocational college: We recommend the creation of a new coordination and communication body or hub at the vocational college with the purpose to ensure that information about language development opportunities and mobility projects is up to date and adequately communicated to all stakeholders. We specifically encourage enhanced cooperation with the Office for VET and Career Guidance in the Principality of Liechtenstein, the person responsible for exchanges in the Canton of St Gallen, with Movetia, and other vocational colleges and relevant institutions. This coordination body would provide additional advice and support to the apprentices.

## Explanations for recommendation 4:

According to Feller et al. (2020), equal opportunities should be increased "by making VET more accessible, strengthening information and advice on the entire educational and vocational career, compensating for disadvantages, and addressing and deepening the subject in the classroom" (p. 100, our translation). Our results show that all apprentices had been informed about the elective subject programme, but that a surprisingly large proportion reported knowing nothing about it. We assume that a comprehensive, transparent and regular flow of information, as well as appropriate encouragement and advice about the existing offer, will lead to more comprehensive language development and equal opportunities. This could be coordinated by an office in the bzbs or at the cantonal level.

When implementing such an information and advice hub, institutions would need to consider that apprentices in dual VET programmes tend to have less capacity to research relevant information and make their own arrangements. Due to the combined college and work pressures, VET learners are likely to depend more on support of the kind we propose than students in general education (e.g. Gymnasium).

### 6.3 Recommendations for research

Our case study contributes indirectly to the Vocational Education and Training 2030 project (Berufsbildung 2030, see SBFI, 2020) by providing detailed insights into the perceptions, experiences and opinions of apprentices (phase 1) and other stakeholders (phase 2) on the role of multilingualism in VET in the technical sector in a specific region of Eastern Switzerland and the Principality of Liechtenstein. By including the views of apprentices, our work complements Feller et al. (2020) findings, which included the views of various professionals responsible for VET.

Our work also builds on the international findings by Coray \& Duchêne (2017), notably that there was little research on multilingualism in technical occupations, and even less on multilingualism in VET. Our study has the character of a pilot in this respect and opens the field for future - especially transdisciplinary research projects. We see a need for close cooperation between apprentices, professionals responsible for VET in vocational colleges, host companies, professional organisations, as well as representatives from research, education policy and business, with the aim of approaching this important topic in a joined-up way, not only in the region of the case study but also across cantonal and national borders. Based on our work, we see the need for the following research:

- Development and scientific monitoring of multi-language coaching for VET in the technical sector, which could be based on multilingual education methods, autonomous learning theories and digital learning.
- Development and scientific monitoring of a language awareness programme for VET in the technical sector, building on multilingual education and language awareness research.
- Empirical examination of access to, and impact of, language development and mobility experiences that form part of the VET education plans or are offered by outside providers.
- Empirical examination of the relationship between linguistic realities, linguistic behaviour, mediation skills and their influencing factors in VET in the technical sector.
- Empirical examination of any linguistic criteria used by young people, when deciding on an occupation or applying for an apprenticeship place, and/or any criteria used consciously or unconsciously by companies when recruiting.
- Further case studies in other regions and countries on multilingualism of apprentices and other stakeholders in technical occupations to understand the benefit of multilingualism for the wider economy and society.


### 6.4 Closing statement

Finally, we hope that through our work we succeeded in making the reader aware of the importance of multilingualism in technical VET in all its complexity, and of the potential implications of language education in vocational colleges and host companies. Our findings lead us to conclude that technical VET programmes in a globalised economy would benefit from being accorded greater attention from a language education perspective in order to attract future professionals and to prepare them to work and collaborate effectively in multilingual teams.


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## Glossaries and abbreviations

## Glossary of VET Programmes in this case study

| German | English |
| :--- | :--- |
| Berufsausbildungen EFZ | VET Programmes |
| Coiffeuse/Coiffeur mit eidg. Fähigkeitszeugnis <br> (EFZ) | Hairdresser Federal Diploma of Vocational Edu- <br> cation and Training (VET) |
| Elektroinstallateur*in mit eidg. Fähigkeitszeugnis <br> (EFZ) | Licensed Electrician Federal Diploma of Voca- <br> tional Education and Training (VET) |
| Informatiker*in Plattformentwicklung mit eidg. <br> Fähigkeitszeugnis (EFZ) | Information Technologist Specialism Platform De- <br> velopment Federal Diploma of Vocational Educa- <br> tion and Training (VET) |
| Konstrukteur*in mit eidg. Fähigkeitszeugnis (EFZ) | Design Engineer VET |
| Maler*in mit eidg. Fähigkeitszeugnis (EFZ) | Painter Federal Diploma of Vocational Education <br> and Training (VET) |
| Maurer*in mit eidg. Fähigkeitszeugnis (EFZ) | Bricklayer Federal Diploma of Vocational Educa- <br> tion and Training (VET) |
| Metallbauer*in mit eidg. Fähigkeitszeugnis (EFZ) | Metal builder Federal Diploma of Vocational Edu- <br> cation and Training (VET) |
| Polymechaniker*in mit eidg. Fähigkeitszeugnis <br> (EFZ) | Mechanical Engineer Federal Diploma of Voca- <br> tional Education and Training (VET) |
| Schreiner*in mit eidg. Fähigkeitszeugnis (EFZ) | Joiner (Carpenter) Federal Diploma of Vocational <br> Education and Training (VET) |
| Zimmermann/Zimmerin mit eidg. | Carpenter Federal Diploma of Vocational Educa- <br> tion and Training (VET) |
| Fähigkeitszeugnis (EFZ) |  |

Source: https://www.becc.admin.ch/becc/public/bvz/beruf/grundbildungen

Certificate supplements (German, French, Italian, English) for all VET programmes (categorised according to the National and European Qualification Framework) can be found on the website of the State Secretariat for Education, Research and Innovation (SBFI) https://www.sbfi.admin.ch/sbfi/de/home/bildung/mobili-
taet/ngr/zeugniserlaeuterungen.html
This includes information on

- profile of skills and competences
- range of occupational areas
- level of National Qualifications Framework for the VPET system


## Glossary of general terms

Definitions in German and English can be found here: https://lex.berufsbildung.ch/dyn/11014.aspx?lang=DE\&action=alfa\&value=L

| German | English |
| :---: | :---: |
| Abschlussprüfung | final examination |
| Allgemeinbildender Unterricht (ABU) | Instruction in language, communication and society (LCS) |
| Austausch von Lernenden | Exchange of apprentices |
| Berufliche Grundbildung | Vocational education and training (VET) |
| Berufs-, Studien- und Laufbahnberatung | Vocational, educational and career guidance |
| Berufsbildner/in im Lehrbetrieb | apprenticeship trainers in dual-track VET programmes |
| Berufsbildungsamt | VET office |
| Berufsbildungsgesetz (BBG) | Vocational and Professional Education and Training Act (VPETA) |
| Berufsfachschule | vocational college |
| Berufsfachschullehrer/in | vocational college teacher |
| Berufskundlicher Unterricht | Vocational instruction |
| Berufsmaturität (BM) | Federal Vocational Baccalaureate (FVB) |
| Bildungsplan | VET Training plan |
| Bildungsverordnungen (Bivo) zu den einzelnen Berufen (auch: Verordnung des SBFI über die berufliche Grundbildung) | VET ordinance for the various VET programmes (also referred to as SERI Ordinances on Vocational Education and Training) |
| Brückenangebote | Transitional options |
| duales System | Dual-track VET programme |
| eidg. Berufsattest (EBA) für eine zweijährige berufliche Grundbildung | Federal VET Certificate for a two-year VET programme; |
| eidg. Fähigkeitszeugnis (EFZ) für eine drei- oder vierjährige berufliche Grundbildung | Federal VET Diploma for a three- or four-year VET programme; |
| Eidgenössische Hochschule <br> für Berufsbildung EHB  | Swiss $\quad$ Federal University for <br> Vocational Education and Training SFUVET   |
| Fachhochschulen (FH) | Universities of applied sciences (UAS) |
| Freikurse | optional courses |
| Handlungskompetenzen | professional competences |
| Höhere Berufsbildung | professional education |
| Höhere Fachschulen (HF) | Professional education institutions (PEIs) |
| Kantonales Berufsbildungsamt | cantonal Office for Upper-Secondary Education and Training |
| Lehrbetrieb | host company |
| Lernende*r (Absolvent*in einer beruflichen Grundbildung) | apprentice (student in Vocational education and training (VET) |
| Lernorte | learning locations |
| Nationaler Qualifikationsrahmen (NQR) | National Qualifications Framework (NQF) |
| Organisation der Arbeitswelt (OdA) | Professional Organisation (PO) |
| Rahmenlehrpläne | Core syllabuses |
| Sekundarstufe I | Lower-secondary level |
| Sekundarstufe II | Upper-secondary level |
| Stützkurs | remedial course |
| überbetrieblicher Kurs (ÜK) | branch course |

Source: https://lex.berufsbildung.ch/dyn/11014.aspx?lang=DE\&action=all

## Abbreviations

Definitions in German and English can be found here: https://lex.berufsbildung.ch/dyn/11874.aspx

| Abkürzung | Definition | Abbreviation | Definition |
| :---: | :---: | :---: | :---: |
| ABU | Allgemeinbildender Unterricht | Core-LCS | core Syllabus for Language, Communication and <br> Society instruction in VET Programmes |
| BBG | Berufsbildungsgesetz | VPETA | Vocational and Professional Education and Training Act |
| BBV | Berufsbildungsverordnung | VPETO | Ordinance on Vocational and Professional Education and Training |
| BIVO | Bildungsverordnung (zu den einzelnen Berufen) | VET ordinances | VET ordinances for the various VET programmes |
| BM 1 | Berufsmaturität während beruflicher Grundbildung | FVB 1 | Federal Vocational Baccalaureate during apprenticeship |
| BM 2 | Berufsmaturität nach der beruflichen Grundbildung | FVB 1 | Federal Vocational Baccalaureate after fapprenticeship |
| bzbs | Berufs- und Weiterbildungszentrum Buchs Sargans | bzbs | Vocational College and Further Training Centre Buchs Sargans, Switzerland |
| eidg. | eidgenössisch | fed. | (Swiss) federal |
| E Profil | erweiterte Anforderungen | E profile | advanced requirements |
| EBA | Eidgenössisches Berufsattest (zweijährige berufliche Grundbildung mit eidg. Berufsattest, EBA) | Federal VET Certificate | Federal VET Certificate for a two-year VET programme; |
| EFZ | Eidgenössisches Fähigkeitszeugnis (drei- oder vierjährige berufliche Grundbildung mit eidg. Fähigkeitszeugnis, EFZ) | Federal VET Diploma | Vocational Education and Training, Federal Diploma |
| EFZ | eidg. Fähigkeitszeugnis (EFZ) für eine drei- oder vierjährige berufliche Grundbildung | Federal VET Diploma | Federal VET Diploma for a three- or four-year VET programme |
| FH | Fachhochschulen | UAS | University of applied sciences |
| HF | Höhere Fachschule | PEI | Professional education institution |
| Profil E | Erweiterte Anforderungen | Profile E | advanced requirements |
| Profil G | Grundlegende Anforderungen | Profile G | basic requirements |
| Profil M | Mit Berufsmaturität | Profile M | With Vocational Baccalaureate during apprenticeship |
| NQR | Nationaler Qualifikationsrahmen | NQF | National Qualifications Framework |
| OdA | Organisation der Arbeitswelt | PO | Professional organisation |
| QV | Qualifikationsverfahren | QPs | Qualification procedures (QPs) |
| SBFI | Staatssekretariat für Bildung, Forschung und Innovation | SERI | State Secretariat for Education, Research and Innovation |
| üK | überbetriebliche Kurse | üK | Branch courses |
| VPET | Berufsbildung | VPET | Vocational and Professional Education and Training on secondary or tertiary level |

## Project team

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Gabriela Meier completed a commercial apprenticeship in the textile industry and a BA in Translation Studies (ZHAW) in Zurich. She worked as a free-lance translator, as a German, Spanish and English teacher at upper-secondary level, and organised Englishcourses for young people in the UK. Further studies at the University of Plymouth (PGCE) and Exeter (MA and PhD in European Studies) led to her research interests: multilingualism in education, and linguistic socialisation, as well as language and social cohesion. She has evaluated a number of educational programmes (exchange programmes, bilingual schools) at the primary, secondary and tertiary level and developed corresponding recommendations, some of which have been implemented. Her publications include several journal articles and books. She was responsible for the research aspect of the m-voc project.

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After completing a technical and commercial apprenticeship and studying at ZHAW in Zurich, Esther Styger worked as a freelance translator in the engineering industry, and continued her education in the methodological and pedagogical field of foreign language learning. Since then she has worked as an English teacher at vocational colleges, higher technical colleges, universities of applied sciences and other universities. She completed her training as a vocational college teacher at the Swiss Federal Institute of Vocational Education. As part of further intensive training, she was involved in the design and implementation of this m -voc project and established a direct connection to practices at the vocational college and the wider professional environment.

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[^0]:    * Hairdresser (VET), Licensed Electrician (VET), Information Technologist (VET), Design Engineer (VET), Painter (VET), Bricklayer (VET), Metal Builder (VET), Mechanical Engineer E (VET), Mechanical Engineer G (VET), Joiner (VET), Carpenter (VET)

[^1]:    ${ }^{1}$ Courses for people who have arrived recently from abroad.

[^2]:    ${ }^{2}$ Higher education entrance qualification, which can be gained during VET, by attending additional courses at the vocational college.

[^3]:    ${ }^{3}$ In this report we take VET to mean educational provisions offered in Switzerland under the name of Vocational Education and Training - Federal Diploma, and in the Principality of Liechtenstein under the name Vocational Education and Training - Diploma
    ${ }^{4}$ The National Qualification Frameworks (NQF) in Switzerland and in the Principality of Liechtenstein are based on the European Qualification Framework (NQF).

[^4]:    ${ }^{5}$ The German-is-important assessment consists of a multi-item scale based on the following questions (Cronbach Alpha: 0.650).
    14.4) My knowledge of German was an advantage when I was looking for an apprenticeship.
    16.1) Having a good knowledge of German is an asset in our company.
    18.1) In my job it is important to know High German.
    14.1) My supervisors expect me to know German well.
    ${ }^{6}$ Pearson Coeff. 0.001, p 0.980.

[^5]:    ${ }^{7}$ German-only assessment consists of a multi-item scale based on the following questions (Cronbach Alpha: 0.855). 16.4) In our company we value the fact that only German is spoken.
    18.2) In my job it is important to know dialect.
    16.3) Additional languages are considered a problem in our company.

[^6]:    ${ }^{8}$ Pearson Coeff. - $0.100, \mathrm{p} 0.019$.

[^7]:    ${ }^{9}$ Multilingual reality orientation is a multi-item scale based on the following questions (Cronbach's alpha: 0.649).

[^8]:    10.4) In my company I hear one or more additional languages being spoken.
    10.2) I speak one or more additional languages in my company.
    8.1) At my workplace I have the opportunity of learning one or more languages.
    ${ }^{10}$ Pearson Coeff. 0.330, $\mathrm{p}<0.001$.

[^9]:    ${ }^{11}$ Multilingualism-is-valued orientation consists of a multi-item scale based on the following questions (Cronbach Alpha: 0.855).
    14.2) My supervisors expect me to know one or more additional languages.
    16.2) Additional languages are an asset in our company.
    14.5) My knowledge of additional languages was an advantage when looking for an apprenticeship.
    16.6) In our company it is important to speak one or more additional languages.
    ${ }^{12}$ Pearson Coeff. 0.276, $\mathrm{p}<0.001$.

[^10]:    ${ }^{13}$ academically oriented upper secondary strand that prepares for access to higher education

