How language learning opens doors

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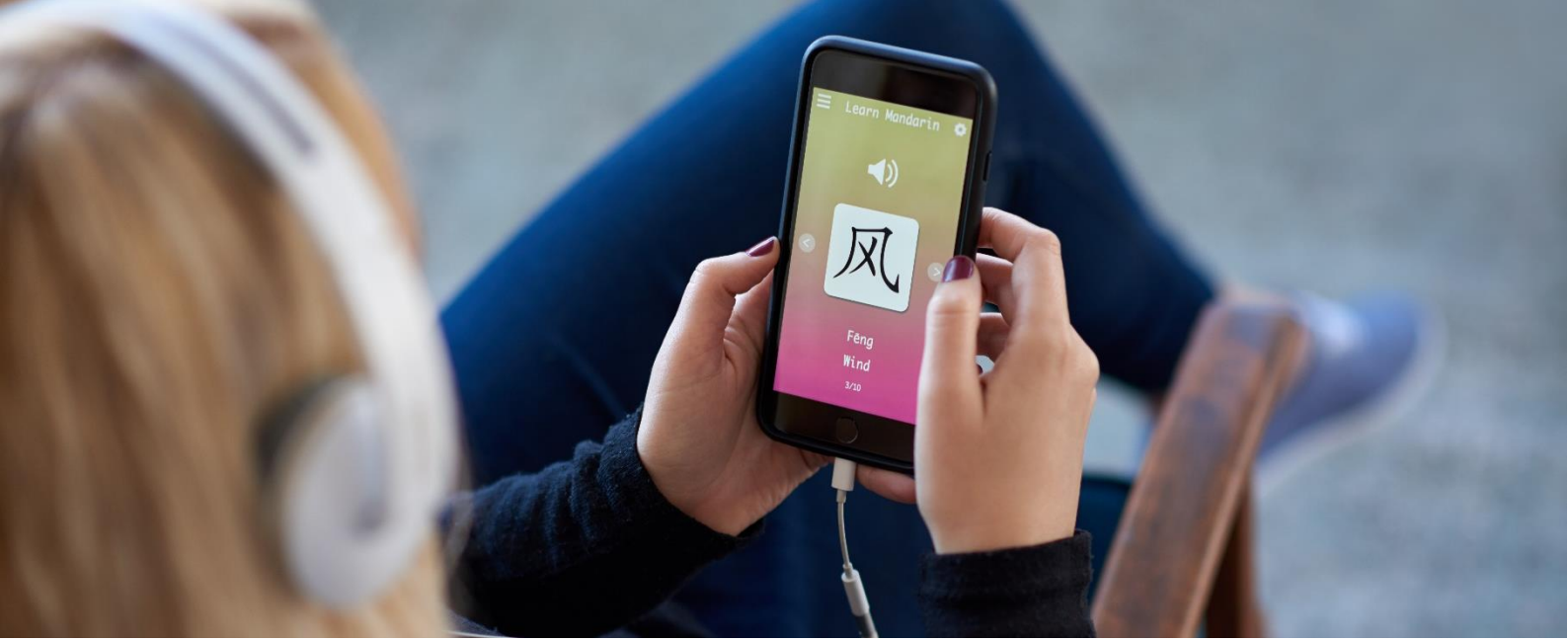
Executive summary

Research has shown that foreign languages can be an important driver towards better job opportunities. This is more likely to be the case if young people take foreign languages into account when developing their career and educational expectations. This paper examines how speaking more than one language and learning at least one foreign language at school relate with students' career and educational expectations. It is based on questionnaire data collected from 15-year-olds in 79 countries and economies as part of the 2018 Programme for International Student Assessment (PISA), as well as on qualitative interviews with students from Costa Rica, Denmark, Hong Kong (China) and Spain.

The PISA data shows that, overall, expectations about completing tertiary education and working as a manager or a professional are higher among students who speak more than one language than among monolingual students. They are also higher among students who are learning at least one foreign language at school compared to those who are not. These patterns are still observed even after accounting for students' academic performance, gender and immigrant background and the socio-economic profile of students and schools. In addition, when focusing on the most commonly expected occupations, students who speak more than one language expect to have careers that require more training than the careers expected by monolingual students. Likewise, students who are learning at least one foreign language at school also expect to follow careers that require more training than students who are not learning foreign languages at school. Based on the PISA 2018 data, it is not possible to determine if knowledge of more languages leads students to have to higher expectations or if students who have higher expectations simply choose to learn more languages. The qualitative data collected through the interviews suggests that it may be both.

The students who were interviewed think that mastering foreign languages is a useful tool that can provide them with more opportunities for education, training and employment in the long term. When asked to think about their specific plans for work and study, students who would like to live or study abroad consider that foreign languages are fundamental, and some students are making extra efforts to further improve their proficiency in foreign languages. However, students who do not plan to study or work abroad consider foreign languages less relevant for their plans.

Schools can influence students' career and educational expectations. They could do more to help students integrate foreign languages into their plans by showing them how the mastery of foreign languages is valued in the worlds of work and study, particularly in the national context.



Introduction

Research has shown that mastering foreign languages can lead to more job opportunities and higher salaries (Araújo et al., 2015[1]; Saiz and Zoido, 2002[2]; Euromonitor International, 2012[3]). Career and educational expectations are good predictors of occupational and educational outcomes (Ou and Reynolds, 2008[4]; Portes et al., 2010[5]; Andrew and Hauser, 2011[6]; Sciarra and Ambrosino, 2011[7]; Roth, 2017[8]; Schoon and Parsons, 2002[9]; Rojewski, 2005[10]; Mello, 2008[11]). Hence, to make the most of the opportunities that foreign languages can provide, students should consider foreign languages when developing their career and educational expectations. These expectations depend greatly on the context and the opportunities students perceive to be available to them (Schoon and Parsons, 2002[9]; Patton and Creed, 2007[12]). Schools can play a fundamental role in the development of students' expectations by helping them understand the full potential of mastering foreign languages (Archer, DeWitt and Wong, 2014[13]; Fisher, 2018[14]).

This paper explores the relationships between the engagement with languages of 15-year-old students and their plans for the future. Using PISA 2018 questionnaire data reported by the students, it provides an overview of the relationship between speaking more than one language and learning foreign languages at school and career and educational expectations. It provides answers to the following questions:

- What proportion of students speak more than one language and learn at least one foreign language at school?
- Are there any differences between the career and educational expectations of students who speak more than one language and students who are monolingual?
- Are there any differences between the career and educational expectations of students who are learning at least one foreign language and students who are not learning foreign languages?

In addition, using information from qualitative interviews, the paper illustrates how the relationship between languages and expectations may work and answers questions such as:

- Do students perceive that there is a demand for languages in the labour market?
- Have schools helped them to identify this demand?
- When forming their career and educational expectations, do students take into account the foreign languages that they are learning or already master?

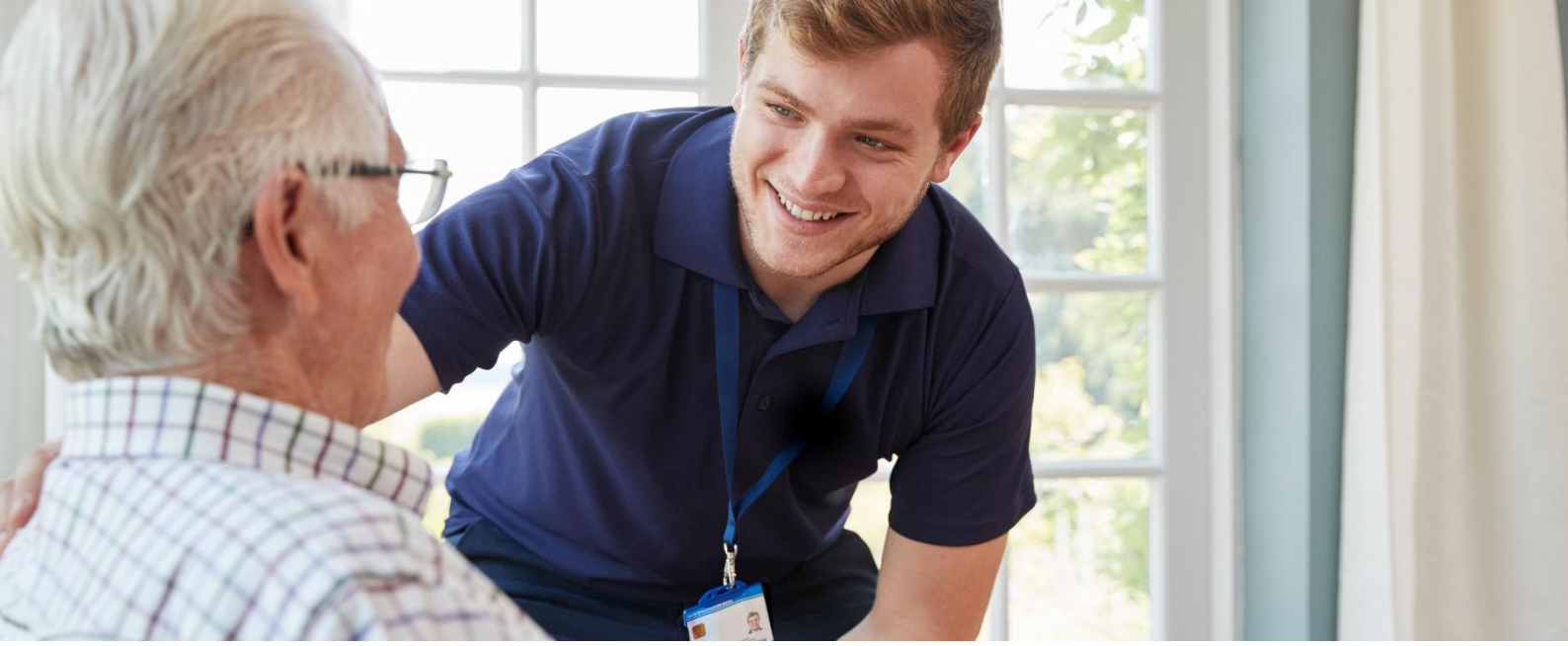
Box 1. Instruments used for this study

Data from the PISA 2018 questionnaires

In 2018, more than half a million 15-year old students from 79 countries and economies participated in the PISA study. Since 2000, PISA has evaluated students in three key areas: reading, mathematics and science. The study also collects background information on students. This includes questions on the educational level they expect to complete and the occupation they expect to be working in at age 30, as well as the number of languages they speak and learn at school. See Box 4 and 5 for further details.

Complementary interviews

To obtain a deeper understanding of the relation between languages and expectations, nine semi-structured interviews were conducted with 15-year old students in Costa Rica, Denmark, Hong Kong (China) and Spain, which represent different regions of the world and also have quite different language contexts. For more details, see the section *How do students consider foreign languages when developing their expectations?*



Foreign languages and career and educational expectations

Benefits of speaking foreign languages

Among many other benefits, foreign languages are a tool that opens doors to better job opportunities and brings economic benefits to individuals and to countries and economies (see Box 2). Proficient foreign language speakers are more likely to find better career opportunities, become more mobile geographically and have greater chances of being promoted to higher-level jobs (Canadian Heritage, 2016[15]; European Commission, 2012[16]; Isphording, 2015[17]; Ahuja, Chucherd and Pootrakool, 2006[18]). Foreign language speakers can also earn higher salaries (Saiz and Zoido, 2002[2]; Euromonitor International, 2012[3]) in both bilingual and non-bilingual countries, with the returns varying according to the languages they speak and the areas in which they work (Garrouste, 2008[19]; Grin, 1999[20]). Araújo et al. (2015[1]) identified that, in the 25 Member States of the European Union, individuals who know one or more foreign languages are more likely to be employed than monolingual individuals, regardless of their level of proficiency.

Governments are aware of the importance of speaking more than one language and, in the last few decades, there has been a tendency to invest significant resources in teaching foreign languages at school. For example, in 2003, Chile initiated the programme “English Opens Doors” to strengthen the English language; in 2010 the Abu Dhabi Education Council launched the “New School Model”, implementing a bilingual English-Arabic model for curriculum in public schools; and in 2017 Ireland set up “Languages Connect” to promote the teaching of foreign language skills.

Box 2. Foreign language and various aspects of student life

Research has shown that learning foreign languages is related to various positive aspects of life beyond economic gains and better job opportunities.

Global competence

- PISA 2018 results showed a positive association between speaking and learning languages and students' dispositions and attitudes towards global competence (OECD, 2020[21]).
- Languages allow individuals to learn about other visions of the world and enable them to discover new and innovative ways of thinking and working together in a globalised world (OECD, 2020[21]).

Intercultural understanding

- Language learning improves communication and is also an avenue towards understanding the diversity of human culture and languages (Fischer, 2012[22]).
- Through language, people can learn about and gain access to other cultures, enhance their cultural awareness and the understanding of other groups' values, and develop an awareness of cultural complexity (Curtain and Dahlberg, 2004[23]; Gudykunst, 2003[24]; Marian and Shook, 2012[25]).

Cognitive benefits

- Students who learn a foreign language are more creative and better at solving complex problems (Bamford and Mizokawa, 1991[26]).
- Learning a foreign language can improve attention and mental alertness in adults after only one week of study (Woll and Wei, 2019[27]; Bak et al., 2016[28]).
- Foreign language learning can help with first language literacy (Murphy et al., 2015[29]) and provide an opportunity to acquire skills and knowledge that can help in learning other languages (Rothman, Cabrelli and De Bot, 2013[30]).

Source: (OECD, 2021[31]), *PISA 2025 Foreign Language Assessment and Analytical Framework, PISA, OECD Publishing*, Paris. Available at: www.oecd.org/pisa/foreign-language.

What are career and educational expectations?

Career expectations[1] can be defined as "career pursuits that an individual considers realistic and accessible" (Metz, Fouad and Ihle-Helledy, 2009, p. 155[32]). They are good predictors of students' occupational outcomes (Schoon and Parsons, 2002[9]; Rojewski, 2005[10]; Mello, 2008[11]).

Career expectations are born from the dynamic interaction of individual and contextual factors (Vondracek, Lerner and Schulenberg, 1986[33]) and are greatly influenced by individual and personality characteristics (Super, 1980[34]; Gottfredson, 1981[35]; Holland, 1985[36]). Depending on the perception of the complexity of different occupations, the abilities they require and the status they hold in society, individuals may expect some career paths to be more suitable for them than others (Gottfredson, 1981[35]; 1996[37]; Musset and Kurekova, 2018[38]). But career expectations also depend greatly on the opportunities that individuals perceive as being available to them, rather than solely on individual preferences (Schoon and Parsons, 2002[9]; Patton and Creed, 2007[12]). For example, by using PISA 2015 data, Musset and Kurekova (2018[38]) identified that students' career expectations were greatly influenced by factors such as socio-economic status, gender and immigrant background.

Similar to career expectations, educational expectations can be defined as an individual's concrete plans for future educational attainment (Smith, 1989[39]; Trusty, 2002[40]; Jacob and Wilder, 2010[41]; Andrew and Hauser, 2011[6]). Historically, educational expectations have been identified as a good predictor of educational attainment (Ou and Reynolds, 2008[4]; Portes et al., 2010[5]; Andrew and Hauser, 2011[6]; Sciarra and Ambrosino, 2011[7]; Roth, 2017[8]). However, some studies suggest that, given the current expansion of offer and demand in higher education, educational expectations now tend to be more similar to aspirations and that, therefore, the relationship between expectations and attainment has weakened with time (Goyette, 2008[42]; Jacob and Wilder, 2010[41]).

Educational expectations are developed through the influence of different factors, such as individuals' ability, school achievement, behaviour and motivations, and through the influence of external factors, which include the expectations of family and teachers for individuals, socio-economic status, costs and returns of education, role models, peers, etc. (Jacob and Wilder, 2010[41]).

[1] While career aspirations reflect the individual's career goals given ideal conditions, career expectations tend to consider the perceived likelihood of obtaining a specific career or occupation, considering both personal and contextual barriers (Rojewski, 2005[10]); (Patton and Creed, 2007[12]). Therefore, career expectations can act as a better predictor of future career choice than career aspirations (Armstrong and Crombie, 2000[79]); (Rojewski, 2005[10]) and (Metz, Fouad and Ihle-Helledy, 2009[32]).

Box 3. What are the main variables related to career and educational expectations?

The main contextual and individual factors associated with career and educational expectations are gender, socio-economic status, academic proficiency and immigrant background, as well as the interactions between these variables.

Gender

- PISA 2018 results show that students' career expectations tend to show gender stereotyping, with girls choosing careers related to fields such as health, teaching and law and boys showing a preference for a wider range of careers, such as engineering, mechanics, police work and athletics (Levy, Sadovsky and Troseth, 2000[43]; Tang, Pan and Newmeyer, 2008[44]; OECD, 2019[45]).
- Women's access to tertiary education has increased in recent decades, with more women than men now accessing this level of education (McDaniel, 2010[46]; OECD, 2013[47]). This is also reflected in higher educational expectations among women (Wood, Kaplan and McLoyd, 2007[48]; Mello and Swanson, 2007[49]; Wells et al., 2011[50]).

Socio-economic status

- Socio-economic status affects students' educational expectations, with disadvantaged students less likely to expect to attend post-secondary education than their more advantaged counterparts (Hanson, 1994[51]; Bohon, Kirkpatrick Johnson and Gorman, 2006[52]). This leads to under-representation of students from lower socio-economic background in tertiary education institutions, limiting social mobility (OECD, 2019[45]).
- Students with higher socio-economic status were twice as likely to believe that they would be working as professionals or managers by age 30 than their counterparts of lower socio-economic status, even when accounting for PISA test performance results (Mann et al., 2020[53]).
- Students who grow up in an environment where most people have lower educational levels have less developed educational expectations, as they have less access to information (Flowers, Milner and Moore, 2003[54]; Heckman, 2011[55]; Slack et al., 2014[56]).

Academic proficiency

- PISA data from 2018 showed that, in the 32 countries and economies that participated in the optional Educational Career questionnaire, three in four students considered getting good grades as "important" or "very important" in decisions about their future occupation (OECD, 2019[45]).
- A decrease in academic ability can lead to a decrease in students' expectations (Gottfredson, 1981[35]; Helwig, 2004[57]; Jacob and Wilder, 2010[41])
- An increase in students' grades is associated with an increase in the likelihood of expecting to attend tertiary education (Reynolds and Pemberton, 2001[58]) in (Guerrero, 2014[59]).

Immigrant background

- The expectations of immigrants can be higher or lower than those of native-born students, depending on the context. For example, Dreby (2010[60]) found that, in the United States, immigrant students showed higher educational expectations than their native-born counterparts, while Feliciando and Lanuza (2016[61]) found the opposite in Italy.
- Some factors that have been identified as strong predictors of career and educational expectations of immigrants are parental education in their country of origin (Ichou, 2014[62]) and acculturation (McWhirter, Hackett and Bandalos, 1998[63]; Reynolds and Constantine, 2007[64]; Franco et al., 2019[65]). This is understood as "the process by which immigrants adapt to the sociocultural and psychological characteristics of the host country" (McWhirter, Hackett and Bandalos, 1998[63]) in reference to (Arbona, 1995, p. 43[66]).

Languages and career and educational expectations

As discussed in the previous section, there is ample literature on how career and educational expectations are developed and on the relationship between student characteristics (gender, socio-economic status, immigrant background and performance) and these expectations. This literature provides useful background to try to understand the relationship between languages and career and educational expectations. In addition, there is some research on the association between learning and speaking more than one language and the career and educational expectations of specific groups, and also on the mechanisms of how this relationship may work.

Languages have been identified as a relevant component in the acculturation of immigrants. Higher levels of acculturative stress, which includes the difficulties of adapting to new cultural environments (including language barriers), were predictive of a decrease in career outcome expectations in the United States (Reynolds and Constantine, 2007[64]; Franco et al., 2019[65]). Not speaking the language of the host country is a factor that can reduce immigrants' career expectations (Baltaci, 2017[67]).

Gavrilova and Trostina (2017[68]) found that Russian university students attributed an important role to English when thinking about their future employability, which made them value extra-curricular foreign language classes. Grasmane and Grasmane (2011[69]) found that university students in Latvia identified the importance of speaking English, German, Russian and French for the Latvian labour market. They also found that students with only basic foreign language skills disregarded the idea of working abroad, as they understood the importance of foreign languages for working in another country.

For the United Kingdom, Mann, Brassell and Bevan (2011[70]) found an important information gap in students' perceptions of the usefulness of speaking more than one language and the actual demand for this skill in the labour market, with boys being more likely to think that other languages were not useful. The authors highlight the need for employers to work closely with schools to disseminate the message of the relevance of languages in the labour market. Proficiency in more than one language and the relevance of learning new languages should be part of the conversations that schools and families have with young people about their future, and languages should be explicitly promoted as leading to enhanced job opportunities.

What the PISA 2018 results tell us

How many students speak or are learning more than one language?

Figure 1 shows the proportion of students who reported that they speak more than one language. Based on PISA 2018 questionnaire data, on average across all countries and economies with available data, 70% of students reported that they speak more than one language (similar to the OECD average of 72%). As could be expected given the very different contexts, the proportion of students who speak more than one language varies a great deal depending on the country or economy, ranging from 27% in Mexico to 97% in Luxembourg. Regional patterns can also be observed. In the European Union (EU), on average, 83% of students speak more than one language, while in Latin-American countries, the proportion ranges from 41% to 56% (see Table B.1 in Annex B).

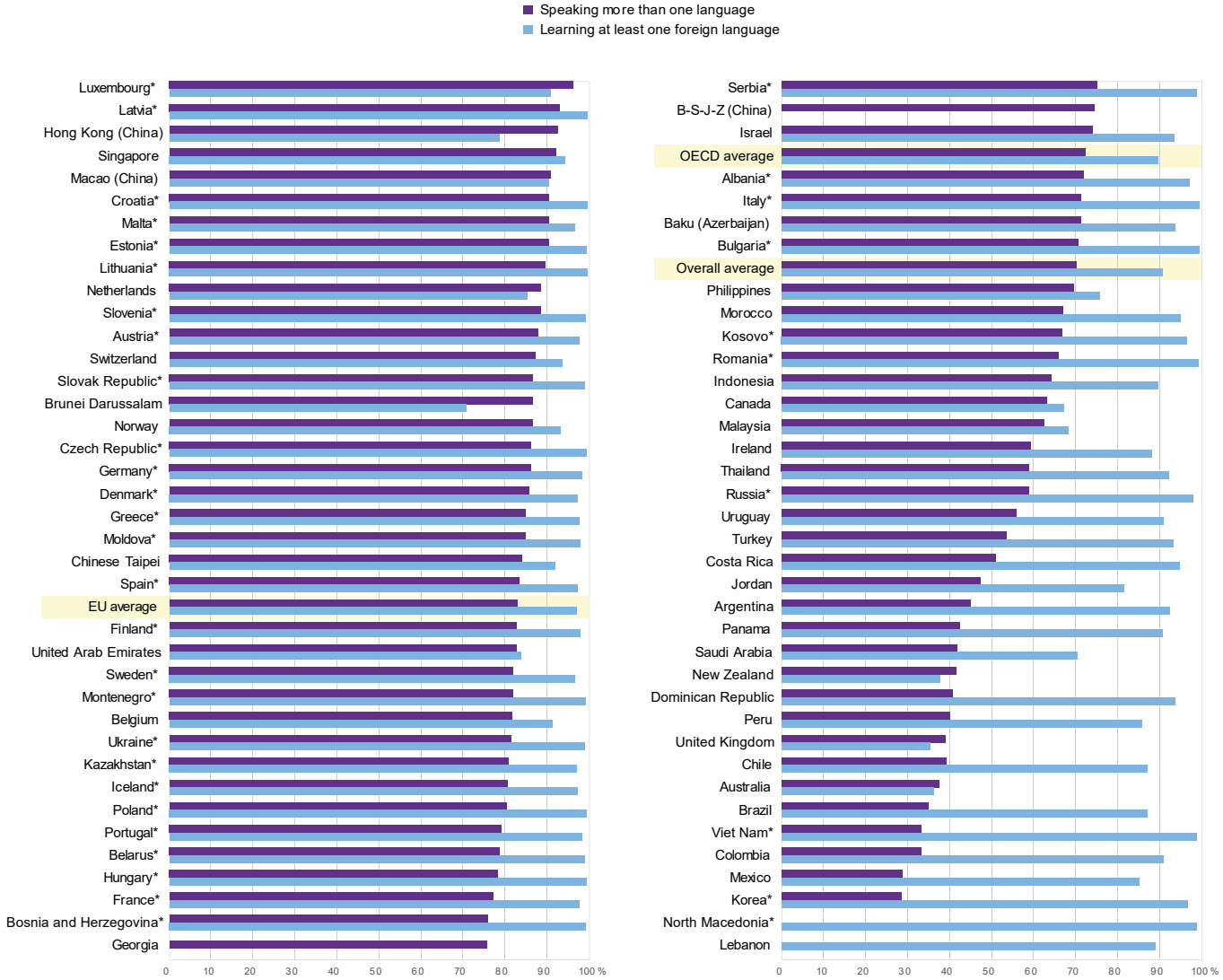
Figure 1 also shows the proportion of students who reported that they were learning at least one foreign language at school. An average of 91% of students across all countries and economies with available data reported that they were learning at least one foreign language at school. This is not surprising, given the high preponderance of foreign languages in today's curricula around the world. Here too, a lot of variation can be seen among countries and economies, as well as some regional patterns. Australia, New Zealand and the United Kingdom have the lowest proportions, with less than 40% of their students studying at least one foreign language. On the other hand, in 17 European countries, 99% of students or more are studying at least one foreign language, and the EU average is 97% (see Table B.1).

In several countries and economies, the proportion of students who are learning foreign languages at school is close to 100%. This presents some challenges for analyses, as the students in those countries and economies who are not learning any foreign languages at school are a small and most likely exceptional group. Thus, those countries and economies (marked with an asterisk in Figure 1) were excluded from the analyses involving the variable "studying foreign languages at school",

as more than 95% of their students reported that they were studying a foreign language. Luxembourg (also marked with an asterisk in the figure) was excluded from the analyses involving the variable “speaking more than one language”, as 96% of its students reported that they speak more than one language (see Table B.1).

Figure 1. Students speaking and learning other languages

Percentage of students who speak more than one language and of students learning at least one foreign language in countries and economies participating in PISA 2018



Notes: Countries and economies marked with an asterisk correspond to those with more than 95% of students who speak more than one language or are learning at least one foreign language.
Countries and economies are ranked in descending order of the percentage of students speaking more than one language.
Number of countries and economies represented: 75.
Source: OECD, PISA 2018 Database, Table B.1. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

The likelihood of students speaking more than one language or learning a foreign language at school is related with aspects such as gender, immigrant background, school track, having repeated a grade, the socio-economic profile of students and schools (using the PISA index of economic, social and cultural status) and academic performance (measured as performance in the PISA reading test). On average across all countries and economies, the following subgroups of students are more likely to have reported that they speak more than one language and are learning foreign languages at school: girls; students with an immigrant background; students on a general track; students who have not repeated a grade; students studying in a city; and students studying in a private school. In addition, performance scores in reading, student socioeconomic profile and school socioeconomic profile are positively associated with speaking more than one language and learning foreign languages (Table B.1).

Box 4. Measures of speaking and learning languages

Two questions from the PISA 2018 student questionnaire were used to identify the number of languages students spoke at home and the number of foreign languages students learned at school.

1) "How many languages, including the language(s) you speak at home, do you and your parents speak well enough to converse with others?"

To conduct the analyses, the responses to this question were divided into two categories: students who speak one language (hereafter, monolingual students); and students who speak more than one language.

2) "How many foreign languages do you learn at your school this school year?"

To conduct the analyses, the responses to this question were also divided into two categories: students not learning foreign languages this year; and students learning at least one foreign language.

While students were asked how many languages they speak, there is no information on what languages these are and whether they are foreign languages or not. There is also no information about what foreign languages students are learning at school.[2] This presents a challenge for analysis and interpretation, as the role of languages can differ according to the specific languages, contexts and purposes in which they are used.

Overall, learning foreign languages at school is associated with a higher probability of speaking more than one language. On average across the 35 countries and economies with available data and enough variations in students' responses,[3] learning at least one foreign language at school is associated with an increase of 46% in the probability of speaking more than one language. However, many students speak languages that are not among the foreign languages taught at school. On average across the 35 countries and economies, around 45% of the students who are not learning foreign languages at school speak more than one language (see Table B.1).

[2] While it is not possible to know what foreign languages the students are learning based on their responses to the question, available literature on this topic indicates that English is currently the most widely taught foreign language (Ammon, 2015[80]).

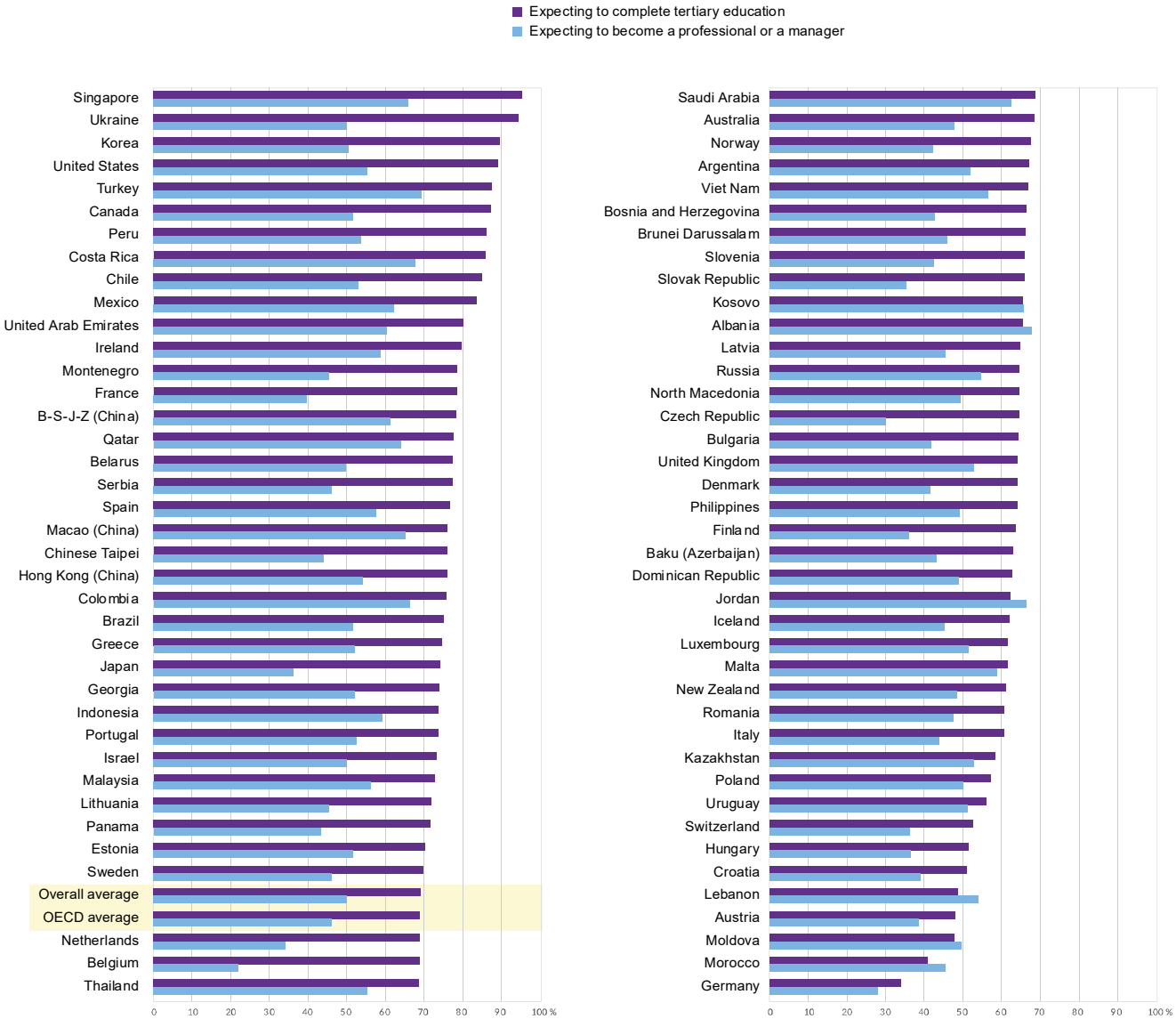
[3] For a description of what was considered enough variation in students' responses, see the Reader's Guide in Annex C.

What proportion of students expect to complete tertiary education or to work as professionals or managers?

Figure 2 shows the proportion of students expecting to complete tertiary education and to be a professional or a manager, based on PISA 2018 questionnaire data. On average across all countries and economies with available data, 69% of students expect to complete tertiary education (the same as the OECD average), ranging from 41% in Lebanon to 94% in Ukraine. On average across all countries and economies, 50% of students expect to work as a professional or a manager (similar to the OECD average of 46%), ranging from 22% in Belgium to 69% in Turkey (Tables B.2 and B.3).

Figure 2. Students' career and educational expectations

Percentage of students expecting to complete tertiary education and to become a professional or a manager



Notes: *Countries and economies are ranked in descending order of the percentage of students expecting to complete tertiary education.*
Number of countries and economies represented: 78.
Source: OECD, PISA 2018 Database, Tables B.2 and B.3. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

Box 5. Measures of career and educational expectations

Two questions from the PISA 2018 student questionnaire were used to identify students' career and educational expectations.

1) "What kind of job do you expect to have when you are about 30 years old?"

This question is open-ended, and student responses were later classified according to the International Standard Classification of Occupations (ISCO-08).[4] To conduct the analyses, the responses were divided into two categories: those of students who expected to work as professionals or managers and those who did not.

2) "Which of the following [levels] do you expect to complete? (ISCED level 2, ISCED level 3B or C, ISCED level 3A, ISCED level 4, ISCED level 5B, ISCED level 5A or 6)".

ISCED levels were translated and adapted to the students' local context. To conduct the analyses, the responses were divided into two categories: those of students who expected to complete tertiary education and those who did not.

The analyses focused on tertiary education and on professionals and managers because, due to the expansion of digitalisation and globalisation, the skills required in today's labour market demand more specialisation than ever before (OECD, 2019[45]). In addition, occupational ambition and educational ambition have been identified as drivers of success. For example, Green (2018[71]) and Schoon (2011[72]) have found that having high ambitions as teenagers is linked with better employment outcomes as adults, which can be explained by greater engagement in education.

Students who speak more than one language have higher expectations

Figure 3 shows the differences between students who speak more than one language and those who are monolingual in the probability of expecting to complete tertiary education and expecting to work as professionals or managers.

On average across all participating countries and economies with available data, speaking more than one language is associated with an increase of 10% in the probability of expecting to complete tertiary education compared to monolingual students, after accounting for academic proficiency (measured as performance in the PISA reading test), gender, socio-economic profile of students and schools and immigrant background, all variables known to be associated with educational and occupational expectations (see Table B.2).[5] On average across OECD countries, this increase is 11%, after accounting for the characteristics listed above.

Looking at individual countries and economies, students who speak more than one language are more likely to expect to complete tertiary education than monolingual students, after accounting for academic proficiency, gender, socio-economic profile of students and schools and immigrant background, in almost 80% of countries and economies (57 of the 72 countries and economies with available data). In almost 20% of countries and economies (14 of the 72), there were no significant differences between the two groups. Only in Malaysia were monolingual students more likely to expect to complete tertiary education (see Table B.2).

Similarly, on average across all participating countries and economies, speaking more than one language is associated with an increase of 11% in the probability of expecting to become a manager or a professional

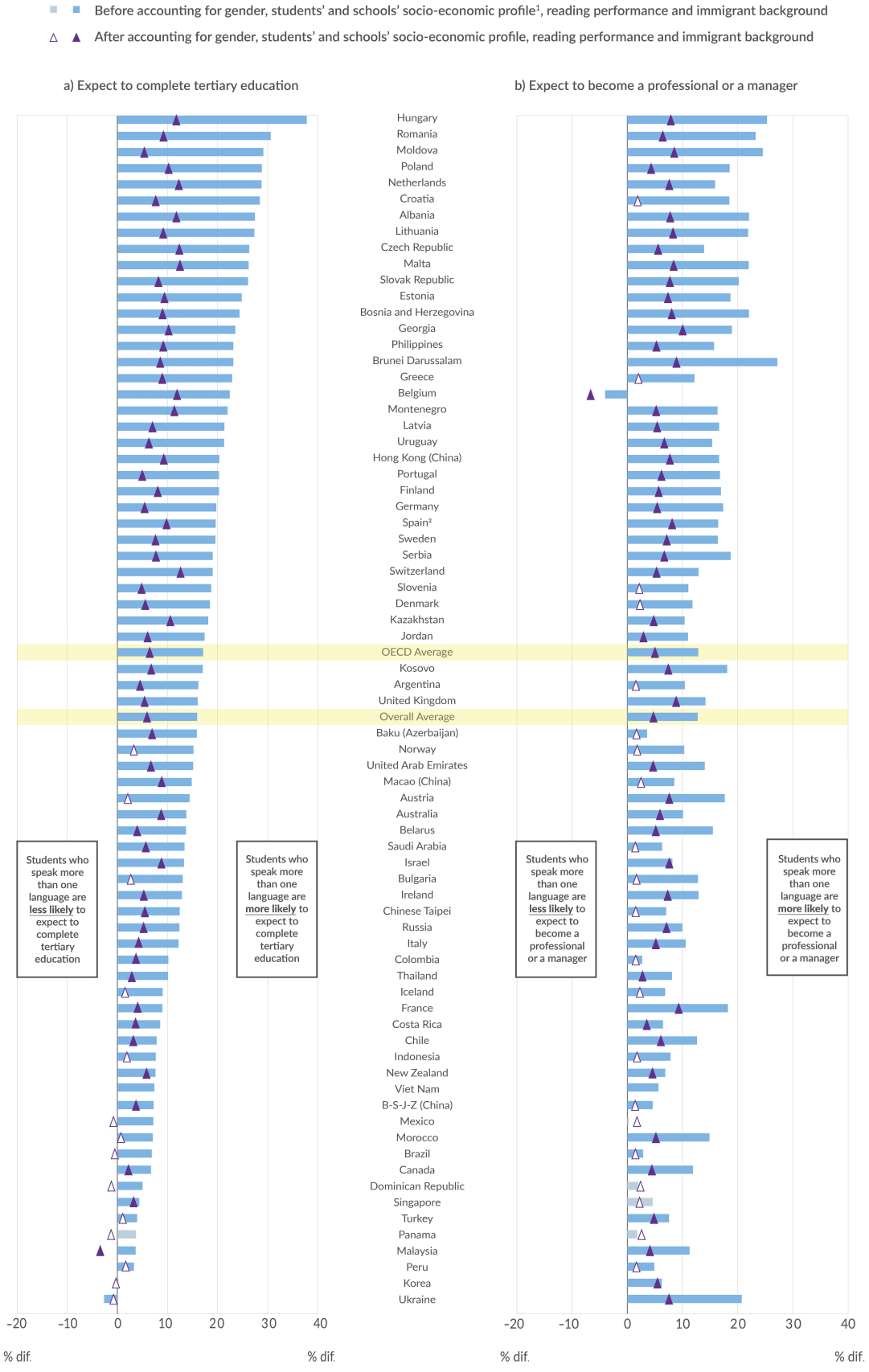
[4] For more information on ISCO, see Annex A.

[5] For more information on the effect of these background variables, see Box 3.

compared to monolingual students, after accounting for academic proficiency, gender, socio-economic profile of students and schools and immigrant background. On average across OECD countries, this increase is 13%, after accounting for the characteristics listed above. Looking at individual countries and economies, after accounting for academic proficiency, gender, socio-economic profile of students and schools and immigrant background, students who speak more than one language are more likely to expect to work as a professional or a manager than monolingual students in 50 of the 72 countries and economies with available data. In 21 of the 72, there were no significant differences between the two groups. Only in Belgium were monolingual students more likely to expect to work as professionals or managers (see Table B.3).

Figure 3. Differences in the expectations of students according to whether they speak more than one language

Percentage-point differences in the expectation to complete tertiary education and the expectation to work as a professional or a manager between students who speak more than one language and those who are monolingual



(See Notes on next page)

1. Student's socio-economic profile is measured by the PISA index of economic, social and cultural status. School's socio-economic profile corresponds to the average of students' socio-economic profiles.
2. In 2018, some regions in Spain conducted their high-stakes exams for tenth-grade students earlier in the year than in the past, which resulted in the testing period for these exams coinciding with the end of the PISA testing window. Because of this overlap, a number of students were negatively disposed towards the PISA test and did not try their best to demonstrate their proficiency. Although the data of only a minority of students show clear signs of lack of engagement (see PISA 2018 Results Volume I, Annex A9), the comparability of PISA 2018 data for Spain with those from earlier PISA assessments cannot be fully ensured.
Notes: Statistically significant differences are marked in darker tones. These differences were computed through linear regressions, before and after accounting for students' main characteristics.
Countries and *economies are ranked in descending order of the difference, before accounting for any background variables, in the expectation to complete tertiary education between students speaking more than one language and monolinguals.*
Number of countries and economies represented: 72.
Source: OECD, PISA 2018 Database, Tables B.2 and B.3. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

In the majority of countries and economies, these patterns do not differ between subgroups (boys/girls, immigrant background/no immigrant background, general or vocational track, repeaters/non-repeaters, urban/rural, private/public school, low/high individual socio-economic status, low/high school socio-economic status and low/high performers). However, on average across all countries and economies, speaking more than one language is associated with more of a difference in the expectation to complete tertiary education in some subgroups: among boys than among girls; among students attending public schools than among those attending private schools; among disadvantaged students and schools than among advantaged students and schools; and among low-achieving students in reading than among high-achieving students[6]. Similarly, on average across all countries and economies, speaking more than one language is related to more of a difference in the expectation to become a professional or a manager in some subgroups: among boys than among girls; among disadvantaged students than among advantaged students; and among low-achieving in reading than among high-achieving ones (see Tables B.2 and B.3).

Students who learn foreign languages at school have higher expectations

Based on PISA 2018 data, Figure 4 shows the differences between students who are learning at least one foreign language and those who are not in the probability of expecting to complete tertiary education or to work as professionals or managers.

On average across all participating countries and economies with available data and enough variations in students' responses, learning foreign languages at school is associated with an increase of 10% in the probability of expecting to complete tertiary education, compared to students who do not learn any foreign languages at school. This increase is after accounting for academic proficiency (measured as performance in the PISA reading test), gender, socio-economic profile of students and schools, and immigrant background (see Table B.4).

Looking at individual countries and economies, after accounting for the characteristics listed above, this difference is observed in two-thirds of countries and economies with available data and enough variations in students' responses (25 of the 37 countries and economies). In one-third of countries and economies (12 of the 37), there was no difference between the two groups (see Table B.4).

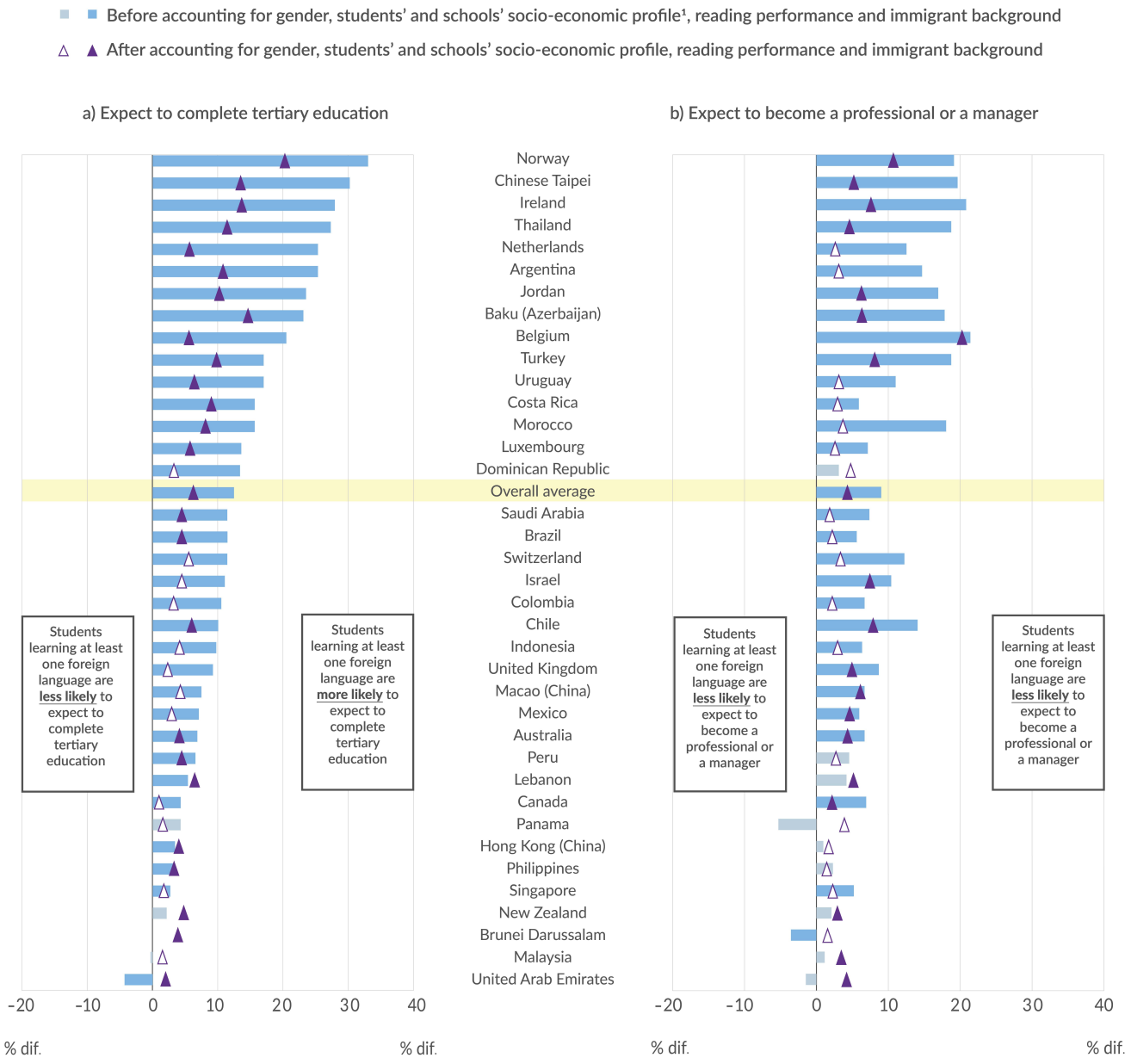
Similarly, on average across all participating countries and economies with available data and enough variations in students' responses, learning foreign languages at school is associated with an increase of 8% in the probability of expecting to become a manager or a professional, compared to students who do not learn any foreign languages at school. This increase is after accounting for academic proficiency, gender, socio-economic profile of students and schools, and immigrant background (see Table B.5).

[6] This refers to students in the bottom and top quarter of performance in reading in their country.

Looking at individual countries and economies, after accounting for the characteristics listed above, this difference is present in half of the countries and economies with available data and enough variations in students' responses (19 of the 37 countries and economies). In the other half (18 of the 37), there was no difference between the two groups (see Table B.5).

Figure 4. Differences in the expectations of students who learn at least one foreign language and those who do not

Percentage-point differences in the expectation to complete tertiary education and the expectation to work as a professional or a manager between students who learn at least one foreign language at school and those who do not



1. Student's socio-economic profile is measured by the PISA index of economic, social and cultural status. School's socio-economic profile corresponds to the average of students' socio-economic profiles. [See Notes on next page]

Notes: Statistically significant differences are marked in darker tones. These differences were computed through linear regressions, before and after accounting for students' main characteristics. The OECD average is not presented, as only 15 OECD countries are included in this figure. *Countries* and *economies are ranked in descending order of the difference, before accounting for any background variables, in the expectation to complete tertiary education between students who learn at least one foreign language at school and those who do not.*
Number of countries and economies represented: 37. For excluded countries and economies, see the Reader's Guide in Annex C.
Source: OECD, PISA 2018 Database, Tables B.4 and B.5. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

In the majority of countries and economies, these patterns do not differ between subgroups (boys/girls, immigrant background/no immigrant background, general or vocational track, repeaters/non-repeaters, urban/rural, private/public school, disadvantaged/advantaged students' and schools' socio-economic profile, and low/high performers). However, on average across all countries and economies, learning foreign languages at school is associated with more of a difference in expectations to complete tertiary education in some subgroups: among students without an immigrant background than among those with an immigrant background; among students who are repeaters than among those who have not repeated; among students in public schools than among those in private schools; among students and schools with a more disadvantaged profile than among advantaged students and schools; and among low-achieving students in reading than among high-achieving ones. On average across all countries and economies, learning foreign languages at school is related to more of a difference in expectations to become a professional or manager among boys than among girls and among disadvantaged students and schools than among advantaged students and schools.

These results show that learning foreign languages at school is associated with more of a difference in students' career and educational expectations mostly in subgroups that are less likely to expect to complete tertiary education or to be engaged in professional occupations (as discussed in Box 3), such as boys and socio-economically disadvantaged students (see Tables B.4 and B.5).

Differences in the most popular choices of expected occupations

The previous sections have focused on whether there are differences in students' expectations to work as professionals or managers or not according to the languages spoken or learned by the student. This section focuses on whether there are differences in the types of expected occupations.

Table 1 shows a selection of students' most popular choices of occupations.[7] The column on the left shows the most popular career choices among monolingual students, while the column on the right shows the most popular career choices among students who speak more than one language. Many of the occupations are popular with both groups of students (shown in black), whereas some are popular with only one group of students (shown in purple). Among the occupations that are popular only with monolingual students are hairdresser, early childhood educator and cook. Among the occupations that are popular only with students who speak more than one language are veterinarian, application programmer, and science and engineering professional.

[7] Table 1 shows the occupations that were among the ten most popular choices in at least four OECD countries. It shows the number of OECD countries and the number of partner countries and economies in which each of these occupations was among the top ten occupations cited. It does not provide information on where a particular occupation ranks in the choice of 15-year-olds within individual countries and economies.

Table 1. Most popular career choices according to whether students speak more than one language or not

Monolingual students		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
5412	Police officers	23	29
2611	Lawyers	21	23
7231	Motor vehicle mechanics and repairers	19	14
2634	Psychologists	17	10
2211	Generalist medical practitioners	15	21
2221	Nursing professionals	13	9
3421	Athletes and sports players	12	18
5141	Hairdressers	11	9
2300	Teaching professionals	10	6
2342	Early childhood educators	10	4
2212	Specialist medical practitioners	9	16
5120	Cooks	9	15
2161	Building architects	8	6
5142	Beauticians and related workers	8	5
2330	Secondary education teachers	7	13
2210	Medical doctors	7	10
3221	Nursing associate professionals	5	1
7111	House builders	5	1
5311	Child care workers	5	1
5223	Shop sales assistants	5	1
2264	Physiotherapists	5	0
7411	Building and related electricians	5	0
2149	Engineering professionals not elsewhere classified	4	10
1120	Managing directors and chief executives	4	6
2512	Software developers	4	4
2341	Primary school teachers	4	3
2500	Information and communications technology professionals	4	0
7512	Bakers, pastry-cooks and confectionery makers	4	0
2140	Engineering professionals (excluding electrotechnology)	4	0
Number of countries/economies included in this analysis:		*34*	*39*

Students who speak more than one language		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
2611	Lawyers	31	32
2634	Psychologists	30	14
2212	Specialist medical practitioners	24	30
2211	Generalist medical practitioners	21	23
2161	Building architects	20	19
5412	Police officers	17	24
3421	Athletes and sports players	14	14
2210	Medical doctors	13	11
2300	Teaching professionals	13	5
2250	Veterinarians	10	2
2149	Engineering professionals not elsewhere classified	7	15
2514	Applications programmers	7	8
2330	Secondary education teachers	6	11
2221	Nursing professionals	6	7
7231	Motor vehicle mechanics and repairers	6	3
1120	Managing directors and chief executives	5	8
2341	Primary school teachers	5	4
2140	Engineering professionals (excluding electrotechnology)	5	0
2512	Software developers	4	7
2100	Science and engineering professionals	4	2
2500	Information and communications technology professionals	4	2
1000	Managers	4	1
2655	Actors	4	1
2264	Physiotherapists	4	1
7411	Building and related electricians	4	0
Number of countries/economies included in this analysis:		*34*	*39*

Notes: Selection of the occupations that were among the top ten in at least four OECD countries. Sorted according to OECD countries.
The International Standard Classification of Occupations (ISCO) code corresponds to the code assigned to students' responses according to ISCO-08.
The occupations that are among the most popular with both groups are shown in black. Those most popular with only one group are shown in purple.
Number of countries and economies represented: 73.
Source: OECD, PISA 2018 Database. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

Table 2 shows a selection of the most popular choices of occupations of students who are not studying any foreign languages and of students who are studying at least one foreign language.[8] The column on the left shows the most popular career choices among students who are not learning foreign languages at school, while the column on the right shows the most popular career choices among students who are learning at least one foreign language at school. As in Table 1, many of the occupations are popular with both groups of students (shown in black), whereas some are popular only with only one group of students (shown in purple). Among the occupations that are popular only with students who are not learning foreign languages at school are motor vehicle mechanic and repairer. Among the occupations that are popular only with students who are learning at least one foreign language at school are primary school teacher and physiotherapist.

[8] Table 2 shows the occupations that were among the ten most popular choices in at least three OECD countries. It shows the number of OECD countries and the number of partner countries and economies in which each of these occupations was among the top ten occupations cited. It does not provide information on where a particular occupation ranks in the choice of 15-year-olds within individual countries and economies.

Table 2. Most popular career choices according to whether students are learning foreign languages or not

Students not learning foreign languages at school		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
5412	**Police officers**	11	15
2611	**Lawyers**	11	14
2634	**Psychologists**	10	4
3421	**Athletes and sports players**	7	6
2300	**Teaching professionals**	7	4
2211	**Generalist medical practitioners**	6	12
2212	**Specialist medical practitioners**	6	10
7231	**Motor vehicle mechanics and repairers**	6	3
2161	**Building architects**	5	6
2221	**Nursing professionals**	5	5
2149	**Engineering professionals not elsewhere classified**	4	9
2166	**Graphic and multimedia designers**	4	1
2411	**Accountants**	3	12
2210	**Medical doctors**	3	6
2330	**Secondary education teachers**	3	4
2250	**Veterinarians**	3	4
2140	**Engineering professionals (excluding electrotechnology)**	3	1
7411	**Building and related electricians**	3	1
5142	**Beauticians and related workers**	3	0
Number of countries/economies included in this analysis:		***15***	***22***

Students learning at least one foreign language at school		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
2611	**Lawyers**	15	16
2212	**Specialist medical practitioners**	12	15
2634	**Psychologists**	12	8
2211	**Generalist medical practitioners**	10	14
2161	**Building architects**	10	9
2300	**Teaching professionals**	8	5
5412	**Police officers**	7	15
2221	**Nursing professionals**	6	6
2250	**Veterinarians**	6	3
3421	**Athletes and sports players**	5	6
2330	**Secondary education teachers**	5	3
2149	**Engineering professionals not elsewhere classified**	4	12
2210	**Medical doctors**	4	6
2341	**Primary school teachers**	4	2
2140	**Engineering professionals (excluding electrotechnology)**	4	0
2411	**Accountants**	3	9
2264	**Physiotherapists**	3	0
Number of countries/economies included in this analysis:		***15***	***22***

Notes: The table shows the occupations that were among the top ten in at least three OECD countries. Sorted according to OECD countries. The ISCO code corresponds to the code assigned to student's responses according to ISCO-08.
The occupations that are among the most popular with both groups are shown in black. Those most popular with only one group are shown in purple.
Number of countries and economies represented: 37. For excluded countries and economies, see the Reader's Guide in Annex C.
Source: OECD, PISA 2018 Database. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

The tables show that there is considerable overlap between the most popular career choices of monolingual students and of students who speak more than one language, as well as among the most popular career choices of students who are learning foreign languages and of those who are not.

However, the different choices of occupations between groups do suggest some kind of a pattern. The occupations that are among the most popular choices only for monolingual students (such as hairdresser and house builder) require less training, while the occupations preferred only by students who speak more than one language (such as science and engineering professional and manager) require more training.

Likewise, the occupations that are among the most popular choices only for students who are not learning foreign languages at school (such as beautician and related worker) require less training, while the occupations preferred only students by who are learning foreign languages (such as primary school teacher) require more training.

These differences in the required level of training of the chosen occupations can, in most cases, also be observed as a tendency when looking at specific subgroups, according to academic performance and socio-economic and demographic characteristics (see Tables B.8 to B.25). For example, focusing on low-achieving students in reading, most of the occupations that are most popular only among those who are not learning foreign languages at school (such as building and related electrician) require less training than the majority of the occupations most chosen by those who are learning foreign languages at school (such as medical doctor) (see Table B.25). Another example, illustrated in Table 3,[9] focuses on the most popular career choices among disadvantaged students. The occupations that are the most popular only among disadvantaged students who are not learning foreign languages at school (such as hairdresser) require less training than those favoured by disadvantaged students who are learning foreign languages (such as psychologist).

The patterns described in this section are consistent with previous findings of this paper that show that students who speak more than one language or are learning foreign languages at school are more likely to expect to complete tertiary educational (the level that requires the most training) than monolingual students or students who are not learning foreign languages. Likewise, students who speak more than one language or are learning foreign languages are more likely to expect to work as a professional or a manager (the occupations that require the most training) than monolingual students or students who are not learning foreign languages.

[9] Table 3 shows the occupations that were among the ten most popular choices in at least three OECD countries. It shows the number of OECD countries and the number of partner countries and economies in which each of these occupations was among the top ten occupations cited. It does not provide information on where a particular occupation ranks in the choice of 15-year-olds within individual countries and economies.

Table 3. Most popular career choices of disadvantaged students according to whether they are learning foreign languages or not

Students not learning foreign languages at school		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
5412	**Police officers**	8	15
2221	**Nursing professionals**	7	10
3421	**Athletes and sports players**	7	7
2212	**Specialist medical practitioners**	7	4
2611	**Lawyers**	6	11
7231	**Motor vehicle mechanics and repairers**	6	5
2300	**Teaching professionals**	6	4
2342	**Early childhood educators**	5	2
2211	**Generalist medical practitioners**	4	11
3434	**Chefs**	4	7
2411	**Accountants**	4	5
2250	**Veterinarians**	4	4
2166	**Graphic and multimedia designers**	4	1
2149	**Engineering professionals not elsewhere classified**	3	8
5141	**Hairdressers**	3	3
2161	**Building architects**	3	2
5142	**Beauticians and related workers**	3	1
7411	**Building and related electricians**	3	0
7115	**Carpenters and joiners**	3	0
Number of countries/economies included in this analysis:		***15***	***22***

Students learning at least one foreign language at school		Total number of OECD countries	Total number of partner countries and economies
ISCO code	Careers		
2611	**Lawyers**	13	14
5412	**Police officers**	10	17
2221	**Nursing professionals**	10	8
2211	**Generalist medical practitioners**	9	13
2300	**Teaching professionals**	8	5
2634	**Psychologists**	8	4
2212	**Specialist medical practitioners**	7	9
3421	**Athletes and sports players**	7	6
2411	**Accountants**	5	8
2161	**Building architects**	5	4
7231	**Motor vehicle mechanics and repairers**	5	4
2330	**Secondary education teachers**	5	4
2341	**Primary school teachers**	4	4
2250	**Veterinarians**	4	4
2149	**Engineering professionals not elsewhere classified**	3	8
2210	**Medical doctors**	3	6
2342	**Early childhood educators**	3	2
Number of countries/economies included in this analysis:		***15***	***22***

Notes: The table shows the occupations that were among the top ten in at least three OECD countries. Sorted according to OECD countries. A socio-economically disadvantaged student is a student in the bottom quarter in the relevant country or economy, as measured by the PISA index of economic, social and cultural status.
The ISCO code corresponds to the code assigned to student's responses according to ISCO-08.
The occupations that are among the most popular with both groups are shown in black. Those most popular with only one group are shown in purple.
Number of countries and economies represented: 37. For excluded countries and economies, see the Reader's Guide in Annex C.
See Table B.23 for socio-economically advantaged students' career expectations by foreign languages learned at school.
Source: OECD, PISA 2018 Database. https://webfs.oecd.org/pisa2018/foreign-languages-and-careers.xlsx

How do students consider foreign languages when developing their expectations?

The data presented so far show that speaking and learning more than one language is associated with career and educational expectations but do not provide information on the mechanisms that may explain this relationship. Do 15-year-old students perceive that there is a demand for languages in the labour market? Do they perceive speaking more than one language as an asset or a limitation when shaping their career and educational expectations?

To illustrate the relationship between foreign languages and expectations, interviews were conducted with nine 15-year-old students from Costa Rica, Denmark, Hong Kong (China) and Spain (See Box 6). Due to data protection regulations, the interviews were not recorded, so the quotes are based on the interviewer's notes and translations when the interviews were done in languages other than English. The questions that guided the interviews are available in Annex D.

Box 6. The student sample for the interviews

Costa Rica, Denmark, Hong Kong (China) and Spain were chosen for the study because they are in different parts of the world and have different language contexts. A convenience sample[10] was selected, and a balance of gender and combinations of language backgrounds typical to each country or economy was sought. Socio-economic diversity was intended, but few students came from the most disadvantaged groups in their country or economy. Additional information on the students interviewed is available in Annex E.[11]

In terms of their general educational expectations, all the students interviewed mentioned that they would like to further their education beyond basic secondary school, with most of them expecting to complete tertiary education. While their educational expectations were very similar, they expected to pursue different fields of study and work.

While the results of these interviews cannot be generalised, the insights and experiences shared by these students are useful to illustrate how some students perceive the role of languages in their expectations and plans for the future. The data from the interviews suggest the patterns discussed below.

Students who are planning an international career consider foreign languages very relevant for their short- and medium-term plans

Some of the students interviewed were considering careers that would require an international profile and expected to study and/or work abroad.

> "I would like to work at an international organisation (…) as a data analyst. I like the idea of working in an international organisation because you can meet people from different countries." – *Lena, Spain, speaks Spanish and English at home and learns English and French at school.*[12]

> "I am not planning to go to a university here (…) I would like to go to a university abroad, not even in Asia, probably in Europe." – *Jonas, Hong Kong (China), speaks Cantonese and English at home and learns Japanese at school*.

> "I would like to work in cybersecurity or developing apps. At the beginning, maybe I would work in Costa Rica to gain experience, but then I would like to work abroad because there is a lot to learn, for example in the United States, where the topic of cybersecurity is well developed. It would change my perspective*." – Eva, Costa Rica, speaks Spanish at home and learns English at school.*

[10] "Convenience sampling (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in a study." (Business Research Methodology, n.d.[84])

[11] All interviews with students were held on line. In some cases, it was challenging to include students from disadvantaged backgrounds, due to their limited Internet access.

[12] The names of students used in this report are pseudonyms.

For these students, learning foreign languages played an important role in determining the career options they were considering.

> "I would like to learn more languages in the future, like German, Chinese or Japanese." (Why those languages?) "Because they would be very useful for work. I want to work on something related to electronics and Japan, for example, is one of the best countries for technological development." – *John, Costa Rica, speaks Spanish at home and learns English and French at school.*

They also recognised the value of speaking foreign languages even for studying and working in their own countries and economies, identifying a demand for foreign languages by local employers.

> "Today speaking English is very important, especially to find a job, even in Costa Rica. If you don't speak English, you don't find a job. My neighbour for example, he has been looking for a job for months, and still nothing. That's because he doesn't speak English." – *Eva, Costa Rica, speaks Spanish at home and learns English at school.*

These students clearly recognise that the foreign languages they speak are an asset for career choice.

> "If I didn't speak other languages, I don't think I would be interested in studying or working in something like international relations. Maybe I would have considered a career in history, which is also interesting and is something that I could do in Spain." – *Clara, Spain, speaks Spanish at home and learns English and French at school.*

> "My educational expectations would be different if I only spoke Spanish. I would not choose something like informatics engineering, because to study that you really need to know English, otherwise programming would be difficult. Maybe I would consider something like cooking, where I could work only in Spanish." – *Eva, Costa Rica, speaks Spanish at home and learns English at school.*

It cannot be inferred from the PISA 2018 data whether students choose careers that require foreign language skills because they already have these skills or if they have purposely developed their foreign language skills because they know languages will be useful for their careers. The interviews suggest it is a mixture of both. As illustrated in the above quotes, some students choose career paths to benefit from the foreign language skills they already have.

But at the same time, the students who perceived foreign languages as a relevant asset for their career plans tended to be making extra efforts to perfect their skills and to learn new languages. The respondents from Spain opted to take French lessons over subjects unrelated to languages, and Jonas, from Hong Kong (China), chose to take Japanese lessons at school on Saturdays. In addition, the respondents from Costa Rica planned to take additional foreign language lessons outside of school or were learning them on their own. In this way, at age 15, these students are already actively working towards their career and educational goals.

Students who are not planning an international career do not consider languages relevant for their short- and medium-term plans

For another group of students, speaking and learning foreign languages seemed to play a less important role in their short- and medium-term career and educational expectations. They had plans to study and work in their own countries and economies and only considered going abroad for tourism or to visit relatives.

> "I don't think I will be moving to other countries. My plan is to stay here in Denmark, where I see good opportunities. If I thought I could have better opportunities in other countries, then I would consider going, but I don't think that is the case." – *Neil, Denmark, speaks Danish, English and Georgian at home and learns English and French at school.*

> "I would like to study in Spain's music conservatory. I would not want to go to a music conservatory in another country because every conservatory has its own way of teaching. For example, by teaching about the harmony or renaissance music, they teach you about the music history of the country. I would prefer to study in Spain to learn more about its own musical tradition." – *Leonard, Spain, speaks Spanish and Valencian at home and learns English at school.*

While these students recognise the relevance of foreign languages in general, they did not identify a clear relationship with their specific work and education plans in their home country or economy.

> "I think English is an important language to know, that you would need a lot, for example, for watching videos, for the Internet, for travelling." (And for your study or work plans?) "I don't think for that it will be that important. I will study and work here in Denmark, and here all lessons are in Danish. Maybe if we receive international students who only speak English, then it would be useful to talk to them." – *Neil, Denmark, speaks Danish, English and Georgian at home and learns English and French at school.*

Foreign languages may offer better options in the long term

Regardless of the perceived relevance of foreign languages for their short- and medium-term plans, when thinking of long-term plans, the students acknowledged the relevance of foreign languages in the world of work and for providing a wider range of options for the future. Students perceive speaking and learning foreign languages as a powerful tool to navigate the future, even if they are not sure what the future will bring them. Foreign language skills can also be a useful resource if their preferences or choices change.

> "I don't think it is important to know other languages to be a professional musician. If I stay in Spain, there would not be a problem if I don't know other languages, but if I want to go abroad then it's different. If you are going to be travelling as a musician then yes, it is necessary to be able to communicate in other languages, and most musicians who do well travel frequently*." – Leonard, Spain, speaks Spanish and Valencian at home and learns English at school.*

> "For the plans I have now of studying psychology and working in Denmark, I don't see how useful English or French would be, but who knows what the future holds (…), I may use it. In a few years, I may change my mind about what to study, and I know these languages would be useful for other careers and other plans, like for studying business or something more international (…) French is very useful if you want to study business in Europe, from what my parents tell me. I think it is good to speak different languages, just in case." – *Lydia, Denmark, speaks Danish and English at home and learns English and French at school.*

> (If your school did not teach you Japanese, would you learn it on your own initiative?) "I would still learn Japanese because I think it is a language that could be useful for my future, not only for travel, but also for work. It gives you one more skill. If you have another skill you will stand out, you will be prioritised from the others. It will be something that separates you from the rest." – *Jonas, Hong Kong (China), speaks Cantonese and English at home and learns Japanese at school.*

English is the most relevant foreign language, but other foreign languages are also important

English is the foreign language most frequently mentioned by interviewees, and the one considered most necessary for education and work. It is also the first or only foreign language that all of the students interviewed are learning at school (except in Hong Kong [China], where English is the language of instruction for around one-third of the secondary schools, generally those of higher academic achievement). This is not surprising given the role of English as a lingua franca in today's world.

> "I like learning English because I feel that it helps me understand more things, and nowadays speaking English is basic. Everyone assumes you speak it. Also, it is an easy language to learn and is very global. It's necessary for any job." – *Leonard, Spain, speaks Spanish and Valencian at home and learns English at school.*

However, many students also mention other languages, in addition to English, that could be relevant for their career plans, such as Chinese, French, German, Japanese, and Portuguese.

> "Most manuals for programming are not in Spanish. There are some in English, in Portuguese, etc. That is why I actually started to learn Portuguese on my own, to understand some of the manuals I found on the Internet." – *Eva, Costa Rica, speaks Spanish at home and learns English at school.*

Schools could do more to signal the relevance of languages for work and education

Schools can play a key role in providing career guidance (Archer, DeWitt and Wong, 2014[13]; Fisher, 2018[14]), particularly for students of lower socio-economic status, who tend to have less access to information (Flowers, Milner and Moore, 2003[54]; Heckman, 2011[55]; Slack et al., 2014[56]). However, the interviews with students suggest that it is mostly their parents who have told them about the language demands of the working world and about the importance of languages for their career and educational plans and that they have received little or no information about this from schools.

> "I don't remember being told about the importance of languages for the future at school, but I imagine that teaching us languages from very young age is a way to let us know that it is something that we will always see and that it is important. But I know more of the importance of languages from my parents and what they tell me about their jobs." – *Clara, Spain, speaks Spanish at home and learns English and French at school.*

> "I think my school teaches languages well, but it seems to me that they should improve in providing more information to students. At my school, the best students choose to study French and those who are not so good or have bad grades choose sports (…). I think that theschool should inform us or motivate us more, for example bringing someone from a company who can tell us how they hire personnel, what they take into account, that languages are important for that." – *Lena, Spain, speaks Spanish and English at home and learns English and French at school.*

On the other hand, one student had received information about the importance of learning English at school. This guidance was provided as part of an outreach activity from his current technical school to his primary school.

> "The technical school came to my (primary) school to let us know about the different specialisations that we could choose from and to give us information (…). The teachers told us that English is very important in general for all the specialisations, but also for my specialisation in electronics, for example, if you work at a company that has different branches abroad." – *John, Costa Rica, speaks Spanish at home and learns English and French at school.*

It is worth highlighting that while students who were not planning to go abroad do not consider foreign languages as useful in their plans, the ability to communicate in other languages can be relevant or necessary even if they stay in their country or economy. For example, Lydia from Denmark believes that her English skills will not be needed to study in Copenhagen, as all her lessons would be in Danish.

But English will likely be needed during her university years for reading papers and publications or to attend conferences. Similarly, Neil (Denmark) and Leonard (Spain), who are planning to study music as a first option and are considering careers in science as a back-up option, did not seem to know about the importance of English in the scientific world. This suggests some lack of information which could be addressed by schools about the relevance of languages for work and education in general and for students' specific career plans. If students are not aware of the importance of languages for their plans, they may not make the most of the opportunities are available to learn foreign languages in school, opportunities that could be more difficult to access in the future.

Box 7. The relevance of career guidance

Teenagers who do not engage in conversations about their future are more likely to be uncertain about their career ambitions (Baxter, 2017[73]) and to experience more career misalignment (Mann, Denis and Percy, 2020[74]).[13] It is important not only to engage in conversations, but also to receive adequate and reliable information (Bimrose J., 2008[75]).

Research suggests that schools can play a pivotal role in broadening young people's aspirations (Musset and Kurekova, 2018[38]), and career guidance and the role of schools as information providers are key in levelling the field for students of all backgrounds (Archer, DeWitt and Wong, 2014[13]; Fisher, 2018[14]). However, PISA 2018 data shows that schools that enrol more disadvantaged students were less likely on average to provide students' with the opportunity to discuss their plans with a specialised career adviser (OECD, 2019[45]). Particularly for disadvantaged students, having access to information and career guidance can help them benefit from considering a larger set of options than those suggested by their family and social network.

Decades ago, only a small number of young people were able to access tertiary education, but nowadays transitions to higher education have become more complex and the rates of access to it have increased significantly (Tomlinson, 2013[76]). In this new context, young people are faced with more choices than ever before, and it is key for them to develop a critical perspective on their career paths and the labour market, as this will affect their future (Mann et al., 2020[53]).

Students may not always consider speaking foreign languages a relevant skill for the labour market. For example, Mann, Brassell and Bevan (2011[70]) found an important information gap in young people's perceptions of the usefulness of languages and the actual demand in the United Kingdom. Career guidance can help solve that gap.

An example of an effective initiative to promote the relevance of languages in the world of work in the United Kingdom is the Business Language Champions programme that ran from 2009 to 2011, where volunteer employees talked to students about the use of languages in their work sectors. The programme had a positive effect on students' appreciation for languages and even increased enrolment in language courses in the schools where it was implemented (Mann, Brassell and Bevan, 2011[70]). A more recent example in the United Kingdom of connecting people in the labour market with students to tell them about foreign languages in the world of work and help them make informed decisions about their futures is the Inspiring the Future programme (www.inspiringthefuture.org/inspiring-languages).

[13] Misalignment between career and educational expectations can potentially increase an individual's likelihood of unemployment (Yates et al., 2011[82]); (Sabates, Harris and Staff, 2011[83]) and lead to low job satisfaction (Musset and Kurekova, 2018[38]).

Languages are valued beyond their utility for work and education

Some students see an intrinsic value in foreign languages, regardless of whether they value them for their career and educational plans or not.

> "Even if I didn't have plans to become a translator, I would still learn Japanese. It is not that I learn Japanese because I want to be a translator. It is my interest in Japanese and languages that makes me want to be a translator." – *Jonas, Hong Kong (China), speaks Cantonese and English at home and learns Japanese at school.*

In some cases, the reason for wanting to go abroad is related to learning foreign languages and experiencing other cultures.

> "I would love to live in a country where I don't speak the language 100% and that this would be precisely the opportunity to learn to speak it perfectly, because I think that to really learn a language it is necessary to live in the country and to immerse yourself in the culture. What motivates me the most of doing a master's degree is doing it abroad, meeting people from other cultures, other countries, other languages." – *Lena, Spain, speaks Spanish and English at home and learns English and French at school.*

> "I would like to study in a university in Korea, where I know they invest a lot in scientific research, so the programmes are really good, and I also love the Korean culture. I started playing video games and then watching movies and series, and I really like how living there looks and their culture." – *Anthony, Spain, speaks Spanish and Galician at home and learns English at school.*

In some cases, the intrinsic value of languages applies to languages that are not foreign languages for the students, languages that they speak because they are regional languages or due to their immigrant heritage. These are an important part of their family life and their identity.

> "I will probably not use Georgian for work or studies, because I live in Denmark, but I do think it is important, as it is the language that I speak at home and also, when I visit my mother's family once a year, it is the language with which I relate to them." – *Neil, Denmark, speaks Danish, English and Georgian at home and learns English and French at school.*

> "Galician will be useful for me if I end up going to university here, also in the next years for school. Outside of Galicia, I don't have many opportunities to practice it, but it is my native language. My mother is from Galicia and it is an important part of who I am, I don't know exactly why, but I have been raised with that idea, and I love the history of Galicia and the language too." – *Anthony, Spain, speaks Spanish and Galician at home and learns English at school.*

The link that Anthony shares with his family's history and languages also motivates him to study more languages that would be useful for him in the future, such as Chinese.

> "I would like to study Chinese." (Why?) "Because it is a very important language also for the world of science, and it would be very useful in the future. But mostly because my great-grandparents on my father's side were Chinese immigrants and I have always had that connection with the country and culture, so I would love to learn the language if I have the opportunity." – *Anthony, Spain, speaks Spanish and Galician at home and learns English at school.*

Anthony's case shows how languages can have an intrinsic value for students while at the same time providing an asset that could be useful for them in the future.

What can be done?

Speaking and learning languages is linked with higher expectations

The data from PISA 2018 show that, overall, students who speak more than one language have higher career and educational expectations than students who are monolingual. In addition, students who are learning at least one foreign language at school have higher career and educational expectations than students who are not. These patterns are maintained even after accounting for students' performance and the socio-economic and demographic characteristics that are known to most affect the development of expectations. Based on the PISA data, it is not possible to identify causality. Does speaking and learning foreign languages lead to higher expectations? Or is it that ambitious students with higher expectations tend to learn more languages? The data collected from the interviews suggests it works in both ways.

Schools can help students see that foreign languages are in demand in the labour market and that languages can help them achieve their goals

The data obtained from the interviews show that the students interviewed think that foreign languages can offer them better opportunities in the long term and that they are considered essential skills by students who plan to work or study abroad. However, languages are not always perceived by students as something useful for work and study, particularly for working in their own country or economy.

Research shows that schools can make a difference in students' expectations (Archer, DeWitt and Wong, 2014[13]; Fisher, 2018[14]). However, the interviews suggest that students' main source of information on the importance of foreign languages is their parents, not schools. Schools could be doing more to help students identify the value of foreign languages in the national and international labour market and to understand that they are important skills to develop. This is particularly relevant for students who come from disadvantaged backgrounds, whose parents may not have the resources to advise them.

In most countries and economies, learning foreign languages is a relevant part of the curriculum, which could be considered a sign that learning languages is a relevant ability that students should master as part of their basic education. However, schools could explain more clearly that foreign languages can provide an element of human capital and show students why foreign languages can be important to their individual plans.

PISA 2018 data shows that many students speak more than one language. Schools could play a more active role in leading students to recognise and learn about the value of the languages they already know and make the most of the opportunities this could bring in their futures. Realising the relevance of languages that they already master for work and further education may lead to higher expectations, which have proven to be a driver in keeping students in education longer (Mann, Denis and Percy, 2020[74]).

Students can work towards their goals by improving their language skills, but they need schools to help them

Students who realise the relevance of foreign languages for work and who do not yet fully master a foreign language can still aim at careers that require foreign language skills. Foreign languages can be learned and, as most school systems offer students the possibility to study them, motivated 15-year-old students who perceive the value of foreign languages can make the most of the opportunities available to them. On the other hand, if students discover the value of foreign languages later in life, they will have less time to acquire these skills before entering the labour market and may face more barriers in accessing opportunities to improve their language skills.

Data from the interviews suggest that students who perceive foreign languages as a relevant asset for their career plans can make extra efforts to perfect their skills and to learn new languages and thus actively work towards their career and educational goals. Several of the students interviewed are interested in improving their foreign language skills beyond English (which they are already studying and consider a basic skill). They take advantage of the opportunities offered to them at school or look for these opportunities elsewhere when they are not available in school.

School systems should provide equal opportunities for all students to learn foreign languages, both within and in addition to the national curriculum, so that foreign language mastery and the opportunities this can provide for future work and study are not limited by the students' resources or the schools' resources.

Some students may benefit more from learning foreign languages

In a few countries and economies, learning foreign languages at school is related to more of a difference among some subgroups of students in the expectation to complete tertiary education or to become a professional or a manager. These subgroups include boys, low performers and disadvantaged students, who tend not to expect to complete tertiary education and not to be engaged in professional occupations. With the PISA data alone, it cannot be determined whether learning foreign languages allows students to develop more ambitious expectations or if those students who expect to complete tertiary education or to be engaged in professional occupations tend to take foreign language lessons at school. While further research is required, it may be worth further investigating the potential benefits of mastering foreign languages, how the benefits vary among students with different backgrounds and the role schools can play in this area. This could speak to the issue of equity by tackling the vicious cycle of students' background, attitudes, behaviour and expectations.

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Annex A. International Standard Classification of Occupations

The International Standard Classification of Occupations (ISCO), is a classification system developed by the International Labour Organization (ILO). The objective of this classification system is to enable international comparisons related to jobs and occupations for statistical and research purposes. Within this classification, "an occupation is defined a set of jobs (or work activities) whose main tasks and duties are characterised by a high degree of similarity" (UNSTATS, 2020[14]). Occupations are then grouped according to the level of skills they require, meaning the ability and level of training needed to perform a specific job. Four broad skill levels are used for the classification, each relating to one level of the International Standard Classification of Education (ISCED), although it does not mean that the skills required for an occupation can only be obtained through formal education (ILO, 2004[15]). ISCO aims to represent the main trends, but the ILO acknowledges that national differences can occur and that, in some circumstances, the level of skills required for certain occupations may vary.

[14] For more information, please visit: https://unstats.un.org/unsd/classifications/Family/Detail/1067.

[15] For more information, please visit: https://www.ilo.org/public/english/bureau/stat/isco/isco88/publ2.htm.

Annex B. Tables

The following tables are available at: https://webfs.oecd.org/pisa2018/foreign-languages-and-careers-annexB.xlsx

Table B.1: Descriptive statistics on the relationship between speaking more than one language or learning at least one foreign language at school and several socio-economic characteristics

Table B.2: Relationship between expecting to complete tertiary education and speaking more than one language, breakdown by subgroups

Table B.3: Relationship between expecting to become a manager or a professional and speaking more than one language, breakdown by subgroups

Table B.4: Relationship between expecting to complete tertiary education and learning foreign languages at school, breakdown by subgroups

Table B.5: Relationship between expecting to become a manager or a professional and learning foreign languages at school, breakdown by subgroups

Table B.6: Most popular career choices according to whether students speak more than one language or not

Table B.7: Most popular career choices according to whether students are learning foreign languages or not

Table B.8: Most popular career choices according to whether students speak more than one language or not and gender

Table B.9: Most popular career choices according to whether students speak more than one language or not and immigrant background

Table B.10: Most popular career choices according to whether students speak more than one language or not and being on general or vocational path

Table B.11: Most popular career choices according to whether students speak more than one language or not and having repeated a grade

Table B.12: Most popular career choices according to whether students speak more than one language or not and studying in a city vs. a rural area

Table B.13: Most popular career choices according to whether students speak more than one language or not and studying in a private school vs. a public school

Table B.14: Most popular career choices according to whether students speak more than one language or not and having a disadvantaged or advantaged socio-economic profile

Table B.15: Most popular career choices according to whether students speak more than one language or not and studying in a socio-economically disadvantaged school vs. an advantaged school

Table B.16: Most popular career choices according to whether students speak more than one language or not and low or high performance in reading

Table B.17: Most popular career choices according to learning foreign languages or not and gender

Annex C. Reader's guide

Data underlying the figures

The data referred to in this paper are presented in the tables of Annex B, available at https://webfs.oecd.org/pisa2018/foreign-languages-and-careers-annexB.xlsx

Three symbols are used to denote missing data:

c – There were too few observations to provide reliable estimates (i.e. there were fewer than 30 students or fewer than 5 schools with valid data).

m – Data are not available: There was no observation in the sample; these data were not collected by the country or economy; or these data were collected but subsequently removed from the publication for technical reasons.

e – Results were excluded due to a too small proportion (less than 5%) of monolingual students or students not learning any foreign language.

Coverage

This paper features data from 79 countries and economies.

The following countries and economies have no data on how many languages the students speak: Japan, Lebanon, the Republic of North Macedonia (hereafter "North Macedonia"), Qatar, and the United States.

The following countries and economies have no data on how many foreign languages the students are learning at school: Beijing, Shanghai, Jiangsu and Zhejiang (China) (hereafter "B-S-J-Z [China]"), Georgia, Japan, Qatar and the United States.

The following countries and economies were excluded from the analysis involving the variable "learning foreign languages at school", as more than 95% of their students reported that they are learning a foreign language:

OECD countries: Austria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Korea, Latvia, Lithuania, Poland, Portugal, the Slovak Republic, Slovenia, Spain and Sweden.

Partner countries and economies: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Kazakhstan, Kosovo, Malta, Moldova, Montenegro, North Macedonia, Romania, the Russian Federation (hereafter "Russia"), Serbia, Ukraine and Viet Nam.

Luxembourg was excluded from the analyses involving the variable "speaking more than one language", as 96% of its students reported that they speak more than one language (see Table B.1).

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Notes on Cyprus:

Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”.

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

B-S-J-Z (China) refers to the four PISA-participating provinces/municipalities of the People’s Republic of China (hereafter “China”): Beijing, Shanghai, Jiangsu and Zhejiang.

International averages

The OECD average corresponds to the arithmetic mean of the respective country estimates, across all OECD member countries.

The overall average corresponds to the arithmetic mean of the respective country/economy estimates, across all PISA participating countries and economies.

The EU average corresponds to the arithmetic mean of the respective country estimates, across all European Union Member Countries.

On 31 January 2020, the United Kingdom left the European Union. The United Kingdom is not included in EU averages in this publication.

In the case of some countries and economies, data may not be available for specific indicators, or specific categories may not apply. Readers should, therefore, keep in mind that the terms “OECD average”, “EU average” and “overall average” refer to countries and economies included in the respective estimates. In cases where data are not available or do not apply for all sub-categories of a given population or indicator, the “OECD average” and the “overall average” are not necessarily computed on a consistent set of countries and economies across all columns of a table.

Rounding figures

Because of rounding, some figures in tables may not add up exactly to the totals. Totals, differences and averages are always calculated on the basis of exact numbers and are rounded only after calculation.

All standard errors in this publication have been rounded to one or two decimal places. Where the value 0.0 or 0.00 is shown, this does not imply that the standard error is zero, but that it is smaller than 0.05 or 0.005, respectively.

Reporting student data

The report uses “15-year-olds” as shorthand for the PISA target population. PISA covers students who are aged between 15 years 3 months and 16 years 2 months at the time of assessment and who are enrolled in school and have completed at least six years of formal schooling, regardless of the type of institution in which they are enrolled, and whether they are in full-time or part-time education, whether they attend academic or vocational programmes, and whether they attend public or private schools or foreign schools within the country or economy.

Reporting school data

The principals of the schools in which students were assessed provided information on their schools' characteristics by completing a school questionnaire. Where responses from school principals are presented in this publication, they are weighted so that they are proportionate to the number of 15-year-olds enrolled in the school.

Focusing on statistically significant differences

This volume discusses only statistically significant differences or changes. These are shown in darker colours in figures and in bold font in tables. Unless otherwise specified, the significance level is set to 5%. For further information, see Annex A3 of PISA Volume I (OECD, 2019[77]).

How PISA defines rural and city schools

PISA asked school principals which of the following definitions best describes the community in which their school is located:

- A village, hamlet or rural area (fewer than 3 000 people)
- A small town (3 000 to about 15 000 people)
- A town (15 000 to about 100 000 people)
- A city (100 000 to about 1 000 000 people)
- A large city (with over 1 000 000 people)

Rural schools are those where the principal answered "a village, hamlet or rural area", whereas city schools (also referred to in this paper as urban schools) are those where the principal answered either "a city" or "a large city".

Abbreviations used in this report

S.E.	Standard error
% dif.	Percentage-point difference

Further documentation

For further information on the PISA assessment instruments and the methods used in PISA, see the *PISA 2018 Technical Report* (https://www.oecd.org/pisa/data/pisa2018technicalreport/).

Annex D. Questions that guided the interviews

Background information

How old are you?

What is your birth date?

In which grade of school are you?

PISA2018 ST019: In what country were you and your parents born?

If student is migrant, PISA 2018 ST021: How old were you when you arrived in <country of test>?

PISA 2018 ST177: How many languages, including the language(s) you speak at home, do you and your parents speak well enough to converse with others?

PISA 2018 ST022: What language do you speak at home most of the time?

With whom in your home do you speak in (languages mentioned)?

PISA 2018 ST189: How many foreign languages do you learn at your school this school year? Which ones? Did you decide on these languages? *If yes*: Why did you choose those languages? Have you learned other foreign languages at school before?

In which language are most of the lessons you take at school? *If student attends a bilingual school:* Why do you think your parents decided to enrol you in a bilingual school? What do you think about that?

Educational and career expectations

PISA 2018 ST225: Which educational level do you expect to complete? (ISCED levels) Why? At the moment, do you have any plans to access (educational level mentioned)?

If secondary education: Are you currently studying at a vocational track? What type of courses do you take? Do they relate to a specific area of study? Why did you choose that vocational track? What would you expect to do after finishing that vocational track?

If tertiary education: What would you like to study? Why? What do you know about that area of study? What factors do you take into account when considering an area of study? Which skills do you think are the most important to have for that area of study? (Explore if speaking languages is important or not.) How would you describe the typical profile of a person in that area of study?

In which institution would you study? In which city/ country is that?

If they mention an institution in their country: Why there? What factors do you take into account when considering an institution? In which language would you study? What do you think about studying in XXXX language? Would you consider doing a semester abroad? Where? Why? *If mentioned master or PhD:*

Would you consider doing your master or PhD abroad? Where? Why? In which language would you study? What do you think about the possibility of studying in that language?

If they mention an institution abroad: Why there? Why not an institution in your country? (Explore advantages of studying abroad.) What factors do you take into account when considering an institution? In which language would you study? What do you think about studying in XXXX language? *If they mention master or PhD:* Would you consider doing your master or PhD abroad? Where? Why? In which language would you study? What do you think about the possibility of studying in that language?

Have you talked with your parents about your educational plans? What do they think about them? Do you think they would like you to do something else? Why?

PISA 2018 ST114: What kind of job do you expect to have when you are about 30 years old?

Where do you think you will be working? In which type of organisation?

What do you think are the main skills needed to obtain that job? (Explore if speaking languages is important or not.) How would you describe the typical profile of someone who has that job? What would be the average salary of this person?

Could you try to imagine what your working life would look like? What would a normal day in your job be like? Who would you be working with? What would be your main tasks or responsibilities? Do you think speaking other languages would be useful for that? Which languages? How? Do you see yourself travelling for work?

What factors do you take into account when considering an expected job? Do you consider skills that are particular to you? Which ones? Why? (Explore performance, languages.) Do you consider other individual characteristics that could be useful for that job? Which ones? Why?

Have you talked with your parents about the job you expect to have? What do they think about this? Do you think they would like you to do something else? Why?

On languages

You mentioned before that you speak XXXX languages at home and that you are learning XXXX languages at school. Since when have you been learning these languages?

How do you like learning these languages at school? What do you like about learning these languages? Do you find learning these languages to be easy or difficult? What is easy/difficult?

If your school did not teach you those languages, do you think you would learn them by your own initiative? Why?

Do you think the languages you speak at home will be useful for you in the future? How? For what? (Explore usefulness for study and work.) How do you know this? (Explore if this is information they received from teachers, parents, Internet, etc.)

How about the languages you are learning at school, could they be useful in the future? How? For what? (Explore usefulness for study and work.) How do you know this? (Explore if this is information they received from teachers, parents, Internet, etc.)

For the educational plans you have, do you think learning languages at school is something important? Why? Which languages are most useful for those plans? Why?

Does the school help you on developing these skills? How? Could they do something differently to help

you more with your language skills?

If you only spoke one language, do you think your educational expectations would be different? In what way? How about your job expectations? In what way?

If you were not taught any languages at school, do you think your educational expectations would be different? In what way? How about your job expectations? In what way?

Have you learned other foreign languages outside of school? When? Where? For how long? Why?

In the future, are you planning on taking additional language lessons? Which language? Why?

Annex E. Description of students interviewed

Pseudonym	Gender	Country or economy	Languages spoken	Language of instruction	Languages learned at school	Educational expectation	Career expectation
John	M	Costa Rica	Spanish	Spanish	English, French	ISCED level 5A or 6	Electronic engineer
Eva	F	Costa Rica	Spanish	Spanish	English	ISCED level 5A or 6	Informatics engineer
Lydia	F	Denmark	Danish, English	Danish	English, French	ISCED level 5A or 6	Psychologist
Neil	M	Denmark	Danish, Georgian, English	Danish	English, French	ISCED level 5B	Musician
Jonas	M	Hong Kong (China)	Cantonese, English	Cantonese, English	Japanese	ISCED level 5A or 6	Translator
Clara	F	Spain	Spanish	Spanish, English	English, French	ISCED level 5A or 6	International relations
Lena	F	Spain	Spanish, English	Spanish, English	English, French	ISCED level 5A or 6	Mathematician
Leonard	M	Spain	Spanish, Valencian	Spanish, Valencian	English	ISCED level 5A or 6	Musician
Anthony	M	Spain	Spanish, Galician	Spanish, Galician	English	ISCED level 5A or 6	Physicist

To find out more about the project, please visit our website at: www.oecd.org/pisa/foreign-language/

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