

# Trends in using young people's skills at work

When they enter the world of work, young people need to use and enhance their skills to strengthen their employability. Many young people who have just left the education system are likely to have the most up-todate skills in certain areas. At the same time, these skills may not be fully in line with employers' needs and making full use of them will take time. Some youth find that the skills they have acquired at school are simply not needed on the labour market. This chapter discusses how young people's skills are used at work.

#### **HIGHLIGHTS**

- According to the 2012 Survey of Adult Skills, young people use their skills less than prime-age workers, even in similar occupations. This concerns all types of skills including information and communication technology (ICT) skills. A substantial share of youth, ranging from 54% in Italy to 25% in Korea, has no computer experience at work.
- Low-skilled young workers use less frequently than their high-skilled peers a number of skills that can generally be developed on the job, such as problem solving and self-organising skills.
- While young workers tend to be more skilled than prime-age workers, the share of those who are in jobs involving routine tasks is similar to that of prime-age workers, ranging from nearly 35% for youth with low numeracy skills to less than 5% for those with high numeracy skills. Youth in jobs with routine tasks are twice less likely than other young workers to benefit from adult education and training.
- Compared with prime-age workers, youth are more likely to be over-qualified and over-skilled in literacy but the incidence of skills mismatch decreases with experience. There is evidence that mismatch has increased in some countries as a consequence of the crisis but limited evidence that the increase is structural.
- For some young people, entrepreneurship can offer opportunities to use their skills effectively. While many young people are interested in entrepreneurship and self-employment, self-employment rates for youth are low.

Youth have to use their skills to maintain and develop their employability. Young people who do not use their skills fully are likely to lose them over time, which can result in negative consequences for future employment and wellbeing. Furthermore, making good use of youth skills can foster productivity, innovation and economic growth.

There are various reasons why young people's skills may not be used efficiently. It can take time for employers to ascertain the types and levels of skills their employees have. It may also take time for young people to discover which jobs best match their skills. The lack of efficient use of skills will diminish with time as workers and employers learn about themselves. However, should it persist over time, it will lead to negative consequences for youth employability and the economy.

#### THE USE OF YOUNG PEOPLE'S SKILLS AT WORK

#### **General trends**

By using their skills, youth adapt them to concrete situations, develop them further and are more likely to have successful careers. At the same time, young people lacking work experience have greater difficulties finding jobs that perfectly match their skills and tend to be in jobs in which they under-use their skills. In addition, not fully using all skills at some point in time also means that youth will be able to add more value to their job in the future and to evolve in their careers. Having a reservoir of untapped skills can help an economy to innovate in the future. Overall, while it is important to make effective use of youth skills, making full use of all skills at any point in time may not be efficient.

The importance of using skills effectively and achieving a good match between workers' skills and jobs has gained prominence in the debate but measures available to apprehend these two features are still limited. The Survey of Adult Skills sheds some light on these issues. It measures on-the-job use of cognitive skills (reading, writing, numeracy, ICT and problem solving), some social and emotional skills (task discretion, influencing skills, co-operative and self-organisation skills) and some occupation-specific skills (learning at work, dexterity and gross physical skills) on the basis of self-reported assessments (OECD, 2013). It also provides an assessment of whether workers are well matched with jobs along a number of dimensions.

The Survey of Adult Skills shows that the intensity of skills use varies across skills domains and countries, but young workers use cognitive skills, on average, less at work than their prime-age peers (Figure 6.1). The result holds even when comparing young and prime-age workers with the same level of cognitive skills. The use of ICT at work is also lower among youth than among prime-age workers in participating countries. With respect to social and emotional and occupation-specific skills, the picture is more mixed: while young people use their task discretion, influencing and self-organisation skills less frequently than prime-age workers, they use their co-operative skills and learn new things from supervisors or co-workers, learn by doing, and keep up-to-date with new products and services more frequently (OECD, 2013).



#### Use of cognitive skills at work, by age

Adjusted and unadjusted age difference in the mean use of skills, in percentage of the average use of skills by prime-age workers, 2012



Notes: Results are adjusted for literacy and numeracy proficiency scores and contract type. Youth are 16-29 years old and prime-age workers are 30-54 years old.

Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database).

StatLink and http://dx.doi.org/10.1787/888933214829

When comparing among the youth group, it appears that youth with lower cognitive skills use less their skills than the high-skilled. High-skilled young workers are also more likely to use their problem-solving and self-organising skills as well as to influence decisions at work than middle-skilled youth (Figure 6.2). However, they are less likely to co-operate with other workers. These results suggest that even in their early careers, high-skilled youth have responsibilities and room of manoeuvre to use their skills while it is less the case for middle-skilled youth, which can undermine lower-skilled young workers' employability. There are however differences between countries that could partly be explained by differences in work organisation cultures and labour market institutions.





Notes: Adjusted estimates are based on ordinary least squares regressions including controls for education level, contract type and occupation dummies. High-skilled workers are those with numeracy proficiency scores at level 4 or 5 and middle-skilled workers, those with numeracy proficiency scores at level 2 or 3.

Percentage difference

Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database). StatLink as http://dx.doi.org/10.1787/888933214832

Youth start their careers in jobs that typically lead to a lower use of skills, such as temporary jobs. Young workers who are on temporary contracts use their skills less intensively than young workers on permanent contracts even if they have the same level of skills (see Chapter 4). However, the underuse of skills by youth is not fully explained by the high incidence of temporary contracts among them. When comparing the use of skills by youth and prime-age workers on the same type of contract, young people still tend to under-use their skills (OECD, 2013).

#### **Digital skills**

Most jobs today require some digital and ICT skills. New jobs and occupations have emerged or developed such as digital artists and designers, digital marketing, application development, and automation engineering. At the same time, existing jobs and occupations also increasingly require digital skills. Traditional cognitive skills such as problem-solving skills, as well as literacy and numeracy are used in combination with digital and ICT skills, making it important for workers to be able to make the most of the whole set of skills.



Digital skills are also required for job searching, collecting job-related information including training, education and job vacancies, and applying for jobs. Job matching and recruitment increasingly depend on digital methods. If youth do not have relevant digital skills, a smooth school-to-work transition will be challenging.

As youth generally perform better than the older generation in this skills domain (OECD, 2013), they are likely to be better matched to jobs with high ICT requirements. Yet, as with other skills, youth use less frequently their ICT skills at work than prime-age workers (see Figure 6.1), although they use them more at home. A substantial share of youth has no computer experience at work while the share of youth with no computer experience in everyday life is much lower (Figure 6.3). This share ranges from 54% in Italy to 25% in Korea.



<sup>■</sup> Figure 6.3 ■ Youth with no computer experience

Percentage of working youth aged 16-29, 2012

The small proportion of youth without digital skills is at a distinct disadvantage. Having ICT skills can be a signal to employers of youth's future potential, whether or not employers need those skills at present. On average, according to the Survey of Adult Skills, about 5% of youth consider that they lack the ICT skills necessary for work and 6% of youth consider that their lack of ICT skills affects their career (Figure 6.4).



Percentage of working youth aged 16-29, 2012



Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database). StatLink and http://dx.doi.org/10.1787/888933214851

Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database). StatLink and http://dx.doi.org/10.1787/888933214840

Having no computer experience at work is associated with other forms of low use of skills (Figure 6.5). Youth without computer experience at work are less likely to have a supervisory role (10%, compared to 24% of working youth who have computer experience at work). These youth often execute physical tasks for long hours (79%), and use their hands or fingers (72%), yet rarely engage in solving complex problems (84%).





Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database). StatLink and http://dx.doi.org/10.1787/888933214861

Various factors can explain why youth tend to underuse ICT skills at work:

- Youth are more likely to work in jobs that require lower skills.
- Youth may not fully exploit the opportunities that the digital economy has brought. Many start-ups have been established in ICT-related sectors and new ICT enterprises have higher survival rates than their counterparts in manufacturing and services (ITU, 2014; OECD, 2014a). However, youth may not be able to fully exploit such opportunities – although the founders of start-ups in the ICT sector are becoming younger and the pace is faster – not because of lack of ICT skills but because of lack of entrepreneurship experience, business network and knowhow, finance management skills or funding opportunities (see below).
- Youth may not be equipped with the specific ICT skills or relevant digital skills that are required at work. The set of ICT skills used at work may be different from those used at home and computer activities in which young adults engage at home are not the same as those required on the job (OECD, 2013). Although youth may use spreadsheets for tracking their own daily expenses, they might not be able to use a spreadsheet for fiscal accounting without further training.
- ICT skills and digital skills are relatively new, thus there are still insufficient mechanisms for recognising these skills, especially in specialised domains.

Low use of ICT skills is problematic, as these skills become quickly obsolete and acquiring them requires retraining. Not using and developing ICT skills at work makes young people vulnerable to technological change. The Survey of Adult Skills shows that the use of ICT, as with other cognitive skills, is positively and significantly correlated with labour market outcomes such as employment and wages (OECD, forthcoming [a]).

#### **Routine tasks**

Certain jobs are by nature less conducive to the development and effective use of skills. This is the case with the so-called "routine jobs" which mainly consist of activities that are sufficiently well defined to be carried out by a computer or by a worker with low skills. The literature, mainly on the United States, has demonstrated the disappearance of occupations focused on routine tasks since the 1980s (Autor, Levy and Murnane, 2003 and Autor and Price, 2013). The demand for jobs with routine tasks is expected to continue to decrease and workers on these jobs to become more exposed to job losses.

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The Survey of Adult Skills identifies workers who perform jobs in which they are unable to "change the sequence of tasks" or "how to do the work", which can be considered as a type of routine job. It also identifies jobs that "do not involve learning-by-doing from the tasks" or "keeping up to date with new products or services", which is another signal that the job may involve some routine and little or no learning-by-doing. The share of youth on these types of jobs varies widely across countries (Figure 6.6).



As a percentage of total employment in each age group, 2012





Notes: Workers who are considered in jobs with routine task are those who answered "not at all" or "very little" to the question "To what extent can you choose or change the sequence of your tasks?". Workers who are considered in jobs with little learning-by-doing are those who answered "never" or "less than once a month" to the question "How often does your job involve learning-by-doing from the tasks you perform?". Source: OECD calculations based on the *Survey of Adult Skills (PIAAC) (2012)* (database).

StatLink and http://dx.doi.org/10.1787/888933214878

Unsurprisingly, the share of workers in these types of jobs decreases along with higher-level skills (Figure 6.6). However while young workers tend to be more skilled than prime-age workers (see Chapter 1), the share of those who are in jobs involving routine tasks is higher than that of prime-age workers in certain countries (Figure 6.7, panel A). Young workers are less frequently in jobs where they do not learn, compared to prime-age workers, especially if they have low numeracy skills (Figure 6.7, panel B).

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#### ■ Figure 6.7 ■

Share of workers in jobs with routine tasks and little learning-by-doing, by level of numeracy skills



Notes: Workers who are considered in jobs with routine task are those who answered "not at all" or "very little" to the question "To what extent can you choose or change the sequence of your tasks?". Workers who are considered in jobs with little learning-by-doing are those who answered "never" or "less than once a month" to the question "How often does your job involve learning-by-doing from the tasks you perform?".

Level 3

Level 4

Level 5

Level 2

Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database).

Level 1

StatLink and http://dx.doi.org/10.1787/888933214883

In addition, the Survey Adult Skills shows that young workers in jobs with routine tasks are less likely to participate in adult education and training although they are more likely to be in need of up-skilling programmes (Figure 6.8).

#### Figure 6.8

#### The relationship between the probability of participating in formal or non-formal adult education and training and performing routine tasks

16-29 year-olds, 2012



Notes: The figure shows the results of a logit regression on all countries. Statistically significant values are shown in darker tones. Source: OECD calculations based on the *Survey of Adult Skills (PIAAC) (2012)* (database). StatLink and http://dx.doi.org/10.1787/888933214898



#### **JOB MISMATCH**

A sub-optimal allocation of young workers to jobs, the so-called "mismatch" issue, contributes to the less frequent use of their skills at work. As with the underuse of skills compared to prime-age workers, some form of mismatch is common at the beginning of careers. The skills acquired in schools are not exactly those required for a position. Therefore, the first few years may be viewed as a process of skills adjustment: youth may seem to be struggling in the labour market looking for a job and then working in a mismatched job. During this process, unused skills depreciate, useful skills appreciate, and new skills are acquired. A study by Imai, Stacey, and Warman (2011) confirms this skills adjustment process. This study examines the skills mismatch among Canadian immigrants and concludes that individuals' skills gradually converge to the optimal skills sets required by firms' technology, and over time skills mismatch tends to disappear. However, mismatch is problematic if it leads to persistent low use of skills, for instance if the skills developed in the education system lack relevancy for the labour market (see Chapter 3).

There are various dimensions to the mismatch issue. At least three types of mismatch can be identified (OECD, 2013 and 2014b):

- *Qualification mismatch* when the formal qualification a young person holds does not correspond to the requirements of the job.
- *Field-of-study mismatch* when individuals are employed in an area of specialisation other than the one they have studied. This form of mismatch can be problematic if it leads to over-qualification and when certain job-specific skills are not used. Then the person is likely to be penalised in terms of earnings and employment opportunities. However, some young people integrate very well into jobs outside their field of study; they are able to adapt to labour demand and new work situations easily.
- Skills mismatch when there is a gap between workers' skills and skills needed to cope with the job. Skills mismatch is complex to assess as a broad range of skills is needed for a job and workers might have some of them but lack others. The Survey of Adult Skills gives information on skills mismatch in numeracy, literacy and problem solving in technology-rich environments.

Qualification mismatch and skills mismatch are related, but they are not the same. People with the same qualification have different skills (OECD, 2013). Some of the people who do not have the level of formal qualification deemed necessary for the job do not actually lack the skills necessary to perform the job, and vice versa. For instance in the health sector, while there is relatively low qualification mismatch due to licensing, considerable skills heterogeneity exists among both medical doctors and nurses (OECD, forthcoming [b]).

Compared with prime-age workers, youth are more likely to be over-qualified and over-skilled in literacy (Figure 6.9). They are also more likely to encounter field-of-study mismatch that is a source of over-qualification. On the other hand, youth are less likely to work in an area outside their field of study, but for which their qualification level is appropriate. Empirical evidences also show that the incidence of skills mismatch decreases with experience and the returns to skills increase with experience (OECD, 2014b). When these three dimensions of mismatch are combined, the analysis suggests that the incidence of mismatch varies little by age group (OECD, 2014b).

## Figure 6.9 Mismatch, by type of mismatch and age group

As a percentage of total employment in each age group, 2012







Figure 6.9 (continued)



Notes: Workers are classified as mismatched "by qualification" if they have higher or lower qualifications than required by their jobs. Workers are classified as mismatched in terms of "literacy skills" if they have literacy proficiency exceeding or below that required in their jobs. Workers are classified as mismatched by "field of study" if they are working in an occupation that is not related to their field of study.

The questions of whether mismatch has increased recently and if so, whether the increase is a temporary or persistent phenomenon have gained prominence. However, there is little evidence on this issue, partly due to the lack of data on job mismatch over time. With low labour demand, youth may have opted for jobs below their level of education or skills, which can lead to a temporary increase in the number of over-qualified or over-skilled young workers. In addition, the economic crisis has triggered structural changes, which might have exacerbated structural mismatches (Arpaia, Kiss and Turrini, 2014; CEDEFOP, 2014; ILO, 2013). For instance, the construction sector has shrunk in several countries as a consequence of the burst of housing bubbles. Moreover, weak external demand has led countries to change their export patterns. In particular, firms have externalised activities based on routine tasks, exacerbating the historical decline in routine occupations (Jaimovich and Siu, 2012). These changes may have enhanced skills mismatch if education systems have not been responsive enough. Young people who have gained experience in these sectors now find themselves in a situation in which these skills are not needed anymore.

Looking forward, mismatch of different types will gradually decrease over time provided education systems adapt to changing needs, institutions equip workers with transferable skills to integrate into labour markets, and governments and firms retrain workers. Changes in industrial structures are expected to be smaller in the next decades than over the last 20 years in main OECD countries and some emerging economies (Braconier, Nicoletti and Westmore, 2014). Yet, they are expected to be large in Japan and main emerging economies.

Limited geographical mobility from one local labour market to another may force young people to accept jobs below their skill levels or in sectors outside their fields of study. This is another cause for a structural mismatch. The wide variations of youth unemployment across regions in a country illustrate the issue (Figure 6.10). These variations arise from geographical or sector-specific shocks and the history of production specialisation. As a result, some regions are characterised by low value-added production, populated with employers operating in low-cost competitive markets. In such regions, a "skills surplus" situation can arise, where well-trained young people cannot find adequate jobs and so accept less demanding ones, or remain unemployed (see OECD 2014c). Where geographical mobility is high, young people from such regions can migrate to find better quality jobs commensurate with their skills in another region.

Source: OECD (2014b), OECD Employment Outlook 2014, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl\_outlook-2014-en. StatLink and http://dx.doi.org/10.1787/888933214904

#### Regional variation in the youth unemployment rate

2013



Notes: The youth unemployment rate is the ratio between unemployed persons aged 15-24 and the labour force in the same age class. Each point represents a TL2 region.

Source: OECD Regional Statistics and Indicators (database).

StatLink and http://dx.doi.org/10.1787/888933214910

#### THE CONSEQUENCES OF UNDERUSING SKILLS AND JOB MISMATCH

Overall, these results show that young workers underuse their skills or are mismatched because of both transitory and structural factors. By moving from a temporary job to a permanent one, young workers are expected to improve the use of their skills. Likewise, it can take time for employers to ascertain the level and types of skills their employees have and make full use of them, and for employees to find the job that matches their skills. Moreover, in some countries, the nature of occupational hierarchies implies that it can also take time for young employees to move into positions of greater responsibility in which they fully use their skills. High-skilled youth may not immediately use their skills in a relatively low-tech economy, but the availability of a highly skilled workforce offers the potential for businesses to upgrade their production processes. However, the underuse of skills can be pervasive or lasting if young workers are trapped into temporary jobs or in jobs with large gaps between the skills they have and those skills that are needed for the job.

Mismatch and the underuse of skills, if they come from structural issues and are lasting can have negative consequences on both individuals and society. If persistent, not making full use of skills is not only a waste of investment in initial education, but a missed opportunity to reap the returns on the investment. Beyond the immediate private and public fiscal costs, skills under-utilisation can have longer term consequences: young people who do not use their skills fully are likely to lose them over time, which can result in negative consequences for future employment and well-being, as well as lower participation in further training.

Skills and qualification mismatch can also impact wages (Figure 6.11). Over-qualified young workers earn less than their well-matched counterparts. The effect of over-skilling on wages is small and often not statistically significant, particularly for youth.<sup>1</sup> Field-of-study mismatch alone does not seem to imply a wage penalty for young people compared to their well-matched counterparts (OECD, 2014b). However, this is often accompanied by over-qualification, which leads to a wage penalty.

#### Wages and mismatch, by type of mismatch and age group

Percentage change in wages<sup>1</sup> due to mismatch, 2012



1. Log of gross hourly earnings including bonuses for wage and salary earners, trimmed at the 1st and 99th centile, by country.

Notes: \*\*\*, \*\*, \*: Statistically significant at 1%, 5% and 10% levels, respectively. A single OLS regression of the log of wages on the three types of mismatch was run including controls for gender, level of educational attainment, field of study, literacy proficiency score, firm size, occupation at 1-digit, industry at 1-digit, contract type, sector (public, private, non-profit), a dummy for students, a dummy for full-time work and country fixed effects. Standard errors are corrected for measurement error and sampling design.

Source: OECD (2014b), OECD Employment Outlook 2014, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl\_outlook-2014-en. StatLink and http://dx.doi.org/10.1787/888933214920

Mismatch also has negative consequences on individuals' job satisfaction. Empirical evidence reveals that being overqualified reduces job satisfaction, and being under-qualified increases it, compared with well-matched workers with the same level of qualification, even when individual characteristics are accounted for. Over-skilling also significantly reduces the likelihood of being satisfied with one's job (OECD, 2011a).

Because of its negative effect on wages and job satisfaction, mismatch can spur job turnover. Both over-skilled and overqualified workers appear to be more likely to engage in on-the-job search, even when socio-demographic characteristics, job attributes and monthly pay were accounted for, with the effect of over-skilling being much larger than that of overqualification (OECD, 2011a). This is true whether workers are compared with their well-matched counterparts with similar qualifications or with their well-matched peers in the same job.

Taken together, all these negative consequences for individuals negatively impact employers too. A poor match leading to on-the-job search and high turnover increases recruitment costs and lowers productivity. Likewise, if people are unsatisfied with their jobs, this has negative consequences on their motivation and their willingness to engage at work. Workers who are under-skilled for the job probably have to exert extra effort at work, given their levels of skills, and are likely to be less productive than workers whose skills fully match the requirements of the job. These effects of sub-optimal skills use may have negative implications for the productivity of an economy as a whole.

#### **ENTREPRENEURSHIP**

Entrepreneurship, i.e. starting one's own business, can offer an alternative option for young people to use their skills and for the economy and society to benefit from new talent. However, businesses run by young entrepreneurs have lower survival rates than those of older entrepreneurs. Yet, those start-ups run by young people that do survive have more growth potential than those of older entrepreneurs, on average. Among businesses that survived three years, those run by people under 30 years old had an average value-added growth rate of 206% – nearly double the growth rate of businesses run by those over 40 (114%) (Van Praag, 2003; OECD/European Union, 2012).

Entrepreneurship can also make contributions to the economy overall. Empirical evidence shows that entrepreneurship can add to employment growth (Haltiwanger, Jarmin, Miranda, 2010). Moreover, youth entrepreneurship can spur innovation and productivity growth by channelling new ideas into the market. It can also help the economy to restructure towards new demands: an increasing number of young people's start-ups, for example, operate in the area of social



entrepreneurship and green enterprises as well as innovative forms of resource sharing (OECD, 2011b). Finally, at the individual level, the job satisfaction of the self-employed tends to be higher than that of the average employee (OECD, 2001).

Many young people are indeed interested in entrepreneurship and self-employment. The European Commission's Eurobarometer shows that overall, in the European Union, young people have stronger preferences for self-employment and are more likely to consider it feasible, compared to the average adult (Figure 6.12).<sup>2</sup> Attitudes to the feasibility of self-employment in the European Union drop off with age: the two youngest age cohorts appear to have the highest level of interest for self-employment, responding that self-employment in the next five years was either "very feasible" or "quite feasible", much higher than the figures for adults aged 40-54, and even more so than those for adults aged over 55 (Figure 6.13). However, the actual self-employment rates for youth are, on average, much lower than for working age adults (Figure 6.14). It seems they face greater barriers to starting a business than more experienced adults do.



• Figure 6.12 • Young people's opinions on self-employment in European countries

Notes: Data show positive answers to questions i) "If you could choose between different kinds of jobs, would you prefer to be self-employed?" and ii) "Regardless of whether or not you want to become self-employed, would it be feasible for you to be self-employed within the next 5 years?". Source: European Commission (2012), "Entrepreneurship in the EU and beyond", *Flash Eurobarometer*, No. 354. StatLink and http://dx.doi.org/10.1787/888933214939



• Figure 6.13 • Share of individuals interested in entrepreneurship, European countries

Notes: Data show answers to the question "If you could choose between different kinds of jobs, would you prefer to be self-employed?". Source: OECD/European Union (2012), Policy Brief on Youth Entrepreneurship: Entrepreneurial Activities in Europe, Publications Office of the European Union, Luxembourg.

StatLink and http://dx.doi.org/10.1787/888933214943



Notes: Data for Chile and Israel are from 2011 (instead of 2013). Countries are ordered from the smallest to largest percentage difference in self-employment rates between youth and prime-age workers.

Source: OECD calculations based on Labour Force Surveys.

StatLink and http://dx.doi.org/10.1787/888933214959

#### **SKILLS SCOREBOARD ON YOUTH EMPLOYABILITY**

#### Do workplaces promote skills use?

The use of skills at work helps develop them further and strengthens youth employability. In particular, more task discretion in organising one's own workload and a working environment which fosters learning, co-operation and problem solving can stimulate workers to perform better while developing their skills. Moreover, the Survey of Adult Skills shows that people accumulate skills relatively quickly during the early years of their careers and lose them relatively slowly during the later years. The effective use and development of youth's skills become even more important so. To measure this concept, the Skills Scoreboard uses four indicators of the share of young employed people who use these skills at work (Table 6.1).



Top 25% Around average Bottom 25% on canada crech per Frank Spain Share of youth having task discretion at work, 16-29 year-olds<sup>3</sup> 2012 Source: Survey of Adult Skills Share of youth learning by doing at work, 16-29 year-olds4 2012 Source: Survey of Adult Skills Share of youth using problem solving skills at work, 16-29 year-olds<sup>5</sup> 2012 Source: Survey of Adult Skills Share of youth using co-operative skills at work, 16-29 year-olds6 2012 Source: Survey of Adult Skills Summary indicator 

Table 6.1 • Skills Scoreboard on youth employability: Do workplaces promote skills use?

1. All indicators from the Survey of Adult Skills for Belgium refer to Flanders.

2. All indicators from the Survey of Adult Skills for the United Kingdom refer to England and Northern Ireland.

3. The indicator is based on the questions D\_Q11a and D\_Q11b (To what extent can you choose or change i) the sequence of your tasks? and ii) how you do your work?). It shows the share of young workers who have answered both questions with "To some extent", "To a high extent" or "To a very high extent".

4. The indicator is based on the questions D\_Q13b and D\_Q13c (How often does your job involve i) learning-by-doing from the tasks you perform and ii) keeping up to date with new products or services?). It shows the share of young workers who have answered the questions with "Less than once a week but at least once a month", "At least once a week but not every day" or "Every day".

5. The indicator is based on the question F\_Q05b (How often are you usually confronted with more complex problems that take at least 30 minutes to find a good solution?). It shows the share of young workers who have answered the questions with "Less than once a week but at least once a month", "At least once a week but not every day" or "Every day".

6. The indicator is based on the question  $F_Q01b$  (In your job what proportion of your time do you usually spend in co-operation or collaboration with co-workers?). It shows the share of young workers who have answered the question with "Up to a quarter of the time", "Up to half of the time", "More than half of the time" or "All the time".

Notes: All indicators have been normalised in a way which implies that a higher value and being among the "top 25%" reflect better performance. The summary indicator is calculated as a simple average of the four indicators.

Source: OECD calculations based on the Survey of Adult Skills (PIAAC) (2012) (database).

#### Notes

1. Qualification mismatch and skills mismatch may both have distinct effects on wages, even after accountig for both qualification level and proficiency scores, because jobs with similar qualification requirements may have different skill requirements. This may happen because employers can evaluate qualifications, but they cannot measure skills directly. In addition, the kinds of mismatch in skills captured by the two indicators are different: the survey's indicators of skills mismatch are based on numeracy, literacy and problem solving, while skills mismatch captured by qualification-based indicators may be interpreted as more general and may be based, for example, on the level of job-specific skills.

2. This is lower than in the United States and China, where 36 % and 49 % of people saw self-employment as "very feasible" or "quite feasible" in the next five years (OECD/European Union, 2012).

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