

SKILLAGE REPORT



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Analysis of Skillage, an online assessment of digital competence developed by Telecentre Europe



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ANALYSIS OF SKILLAGE, AN ONLINE ASSESSMENT OF DIGITAL COMPETENCE DEVELOPED BY TELECENTRE EUROPE

About Skillage

Skillage (<http://www.skillage.eu/>) is an online test developed by Telecentre Europe that assesses young people's understanding and readiness for ICT skills at the workplace. It consists of 15 questions randomly chosen from a set of 100 and grouped into five competence areas: Employability, Productivity, Communications, Social Media and Content Management and Safety¹. Each question has a number of possible answers that explore a particular ICT skill. At the end of the test, the user receives an overall score on their broad levels of ICT skills and advice on where to find a local Telecentre network to improve these skills through training and support.

Since it was launched as an online tool in 2012, more than 39.000 users from all EU member states (plus Russia, Serbia and Moldova) have taken Skillage through their local telecentres.

Executive Summary

Telecentre Europe regularly carries out an analysis of the data provided in Skillage, with the aim of providing an evidence base on young Europeans' digital skills. The conclusions of the analysis will help mobilise the efforts of telecentres around Europe to tackle youth unemployment in the most underprivileged areas and to raise awareness about digital competences and their importance for the labour market.

The following report analyses participation results and the average scores obtained by participants between 2012 and 2015. In addition, for 2015 it provides an in-depth analysis with the socio-demographic variables. The most relevant **findings of our research are:**

- There is a trend towards lower scores with each passing year, with the average scores of the different samples decreasing around five percentage points between 2012 and 2015.
- The socio-demographic profile of the participants is coherent with the main target audience of Skillage and its purpose to test readiness for joining the labour market.
- There is a gender imbalance in the case of unemployed participants with there being more unemployed women than men among the participants. At the same time, women's average scores are higher than men's across every competence area.
- The youth sample presents the lowest average scores both overall and per competence area, which suggests that youngsters' ICT skills are not sufficiently aligned with labour market.
- Children under 16 years show a lower level of skills aligned to labour market expectations, suggesting that formal education is currently not aligned to the demands of the labour market.

Following the analysis above, specific **calls-to-action** and **policy recommendations** are proposed accordingly.

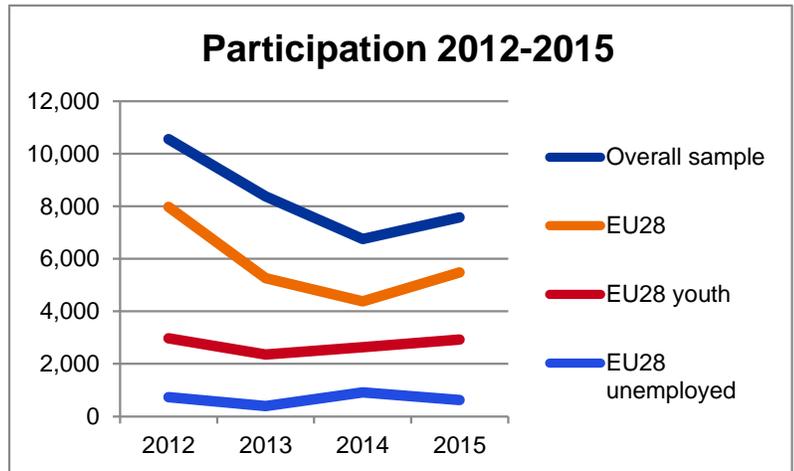
¹ It is noteworthy that the questionnaire has undergone some changes since 2014, when questions were aligned to the European Digital Competences framework (DIGCOMP) and expanded from 40 to 100. Also, the last category changed from Files and Filing to Content Management and Safety. Finally, the revamped test began only in English (2014) and was then translated into all European languages (2015).

Analysis of 2012-2015 data

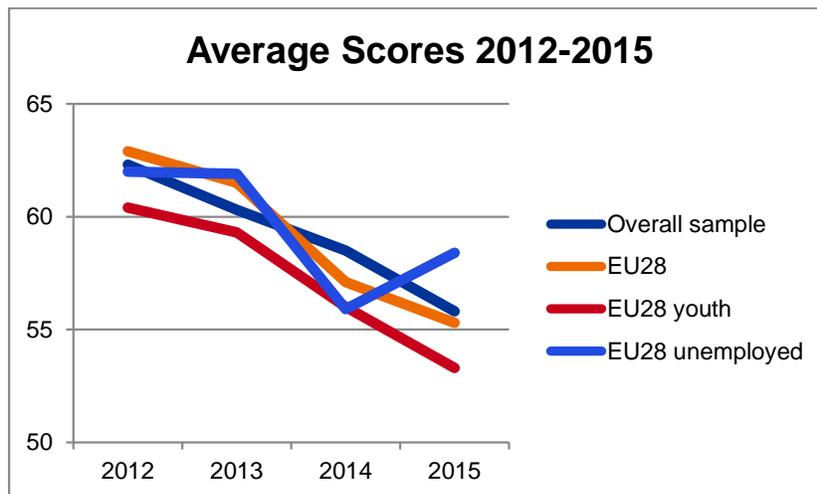
The analysed sample consists of the number of valid² self-assessment tests taken each year in all available languages: 10.558 in 2012, 8.378 in 2013, 6.757 in 2014 and 7.571 in the first three quarters of 2015.

The graphic on the right shows the evolution of **participation** in terms of valid tests. It distinguishes respondents from the overall countries, those from EU28³, the respondents between 16 and 24 years old in EU28 and the unemployed in EU28.

We can draw some observations on the Skillage user participation between 2012 and 2015 based on the graphic. There is a downward tendency of overall and EU28 participation until 2014, then a slight recovery in 2015. Meanwhile, the proportion of youth and unemployed groups from the EU28 participants has irregularly increased.



Focusing on scores, the graphic below shows the evolution of the **average scores** during that period. Skillage calculates the user's overall score on a 0-15 scale, 0 meaning an incorrect answer and 15 indicating a correct answer for each of the 15 questions. In order to make the outcomes more intuitive, the graphic presents the scores on a 0 -100 scale. Since the average scores show a variation between 53 and 63 out of 100, the scale (vertical axis) is restricted to those numerical values.



² I.e. excluding the unfinished tests.

³ EU27 in 2012 and 2013 and EU28 in 2014 and 2015, since Croatia joined the European Union becoming the 28th Member State.

We can highlight three trends on the evolution of the average scores between 2012 and 2015:

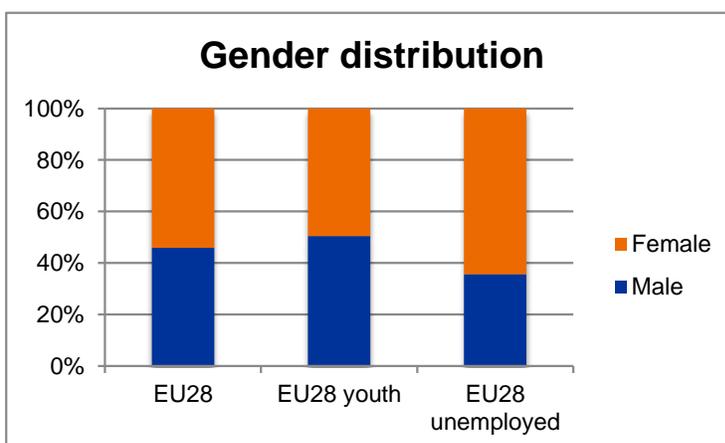
1. A slight but progressive downward tendency of average scores can be appreciated in almost every participants' group, except for the unemployed, whose average increases in 2015. For instance, the average score for EU28 participants descends from 62,9 out of 100 in 2012 to 61,5 in 2013, to 57,1 in 2014 and to 55,3 in 2015. Alike, EU28 youth's average score descends from 60,4 to 59,3 to 56 to 53,3.
2. The worst average scores are those of the EU28 young participants, being 2 to 3 points below the EU28 sample every year.
3. Unemployed have similar scores than the average EU28 until 2014, and they comparatively over-perform in 2015, i.e. in the first year in which the DIGCOMP-compliant test was made available in all EU28 languages. While this may have different interpretations with regards to DIGCOMP appropriateness to measure labour market appropriateness of people's digital competences, it is still too early to draw related conclusions.

Socio-demographic analysis 2015

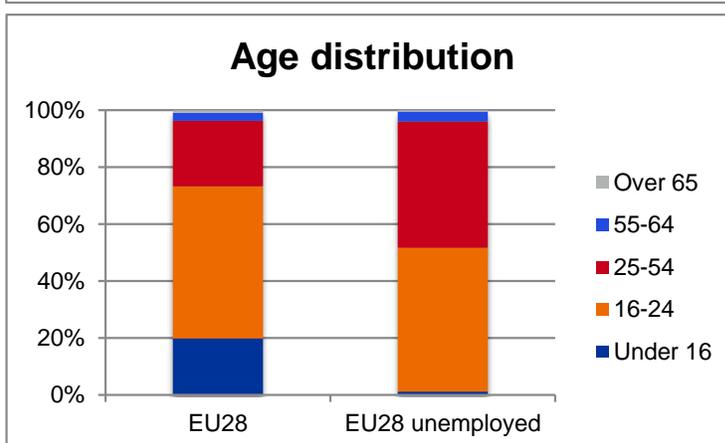
1. Socio-demographic distribution of participation

The 2015 sample consists of 7.571 valid self-assessment tests, while the tests taken in EU Member States are 5.475; those taken by European youngsters are 2.931 and those taken by European unemployed are 627. The following section analyses the distribution of the last three groups (EU28, EU28 youth and EU28 unemployed) on the basis of gender, age and occupation.

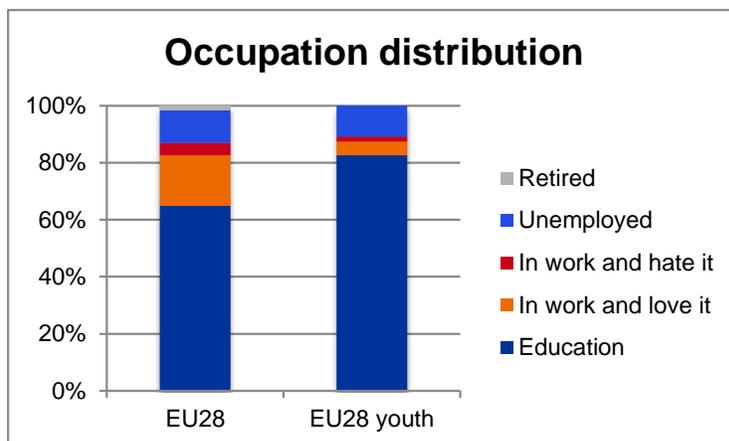
Firstly, we can see in the graphic on the right that the distribution of **participation by gender** is balanced except amongst the unemployed, as there is much higher percentage of women (65% women vs. 35% men) in this sample. This suggests a gender unbalance of the labour market that employs more digitally competent males, notwithstanding the fact that women have these competences as well.



Secondly, the distribution of **participation by age** is very coherent with Skillage focus on employability. Thus, more than half of participants of the EU28 sample (53,5%) are youngsters between 16 and 24 years. The unemployed sample consists mostly (91,1%) of youngsters and adults, with a small participation of elders. However, there is a remarkable participation of children under 16, which might serve to reinforce – through adequate education – their readiness for the future labour market.



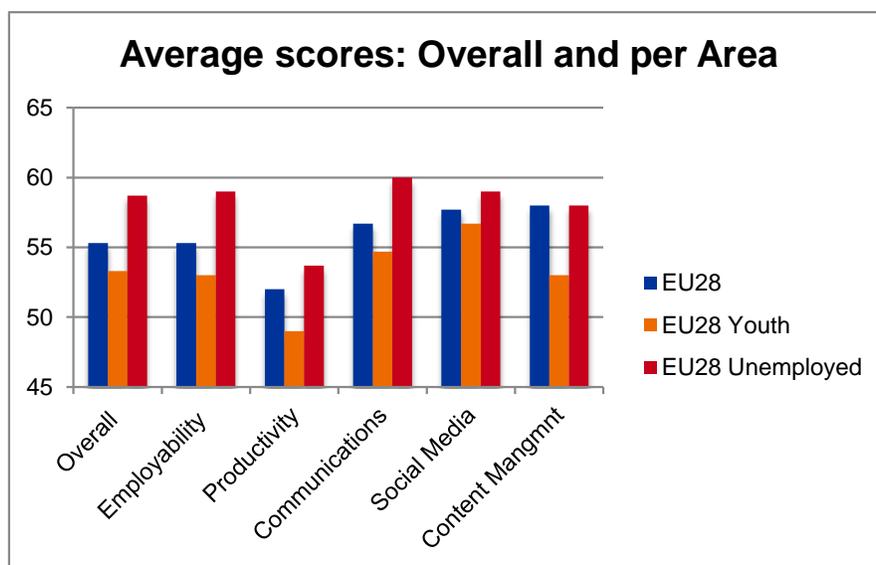
Regarding the distribution of **participation by occupation**, we can see that most participants are in education, however there is a small proportion of unemployed youngsters, who are most probably NEETs⁴. This coincides with Skillage’s aim of describing user’s readiness for joining the labour market.



2. Socio-demographic distribution of average scores

The focus now shifts to the average scores obtained by the samples of 2015 EU28 participants, EU28 young participants and EU28 unemployed participants. The analysis is also made on the basis of gender, age and occupation.

Firstly, we focus on both the average scores of the overall test and the average scores of each single competence area (employability, productivity, communications, social media, and content management). We should remember that Skillage calculates the overall score on a 0-15 scale (since there are 15 questions in total) and the single competence areas’ score on a 0-3 scale (since there are 3 questions per area). As done in the 2012-2015 analysis, both scales have been adapted to a 0-100 scale in order to make the outcomes more intuitive. Likewise, the vertical axis shows only the numerical values ranging between 45 and 65, since all the average scores are located within that range.



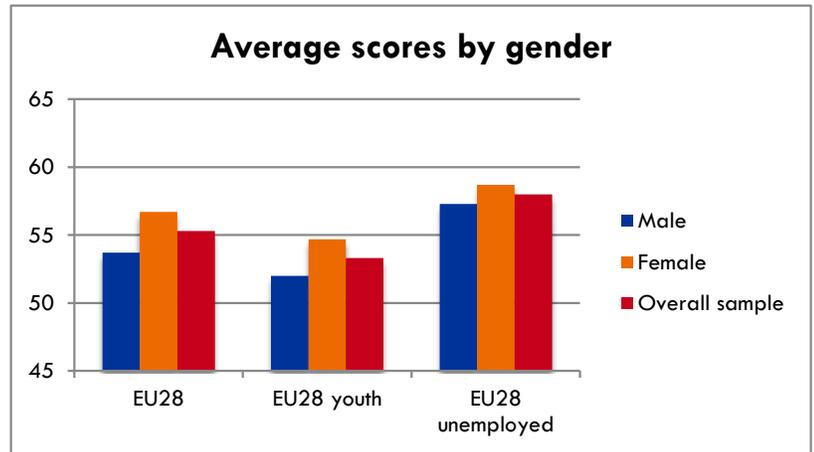
Three main highlights follow regarding the **overall and per area average scores** (seen in the graph above):

1. Unemployed have higher scores than the average (both overall and per area). A possible explanation is that often the unemployed undertake additional training in order to become more employable. Their over-average scores might be promoted among potential employers through campaigns like *eSkills for Jobs* (<http://eskills4jobs.ec.europa.eu/>) or projects like *FIT4JOBS* (<http://fit4jobs.eu/>).

⁴ Not in Education, Employment or Training.

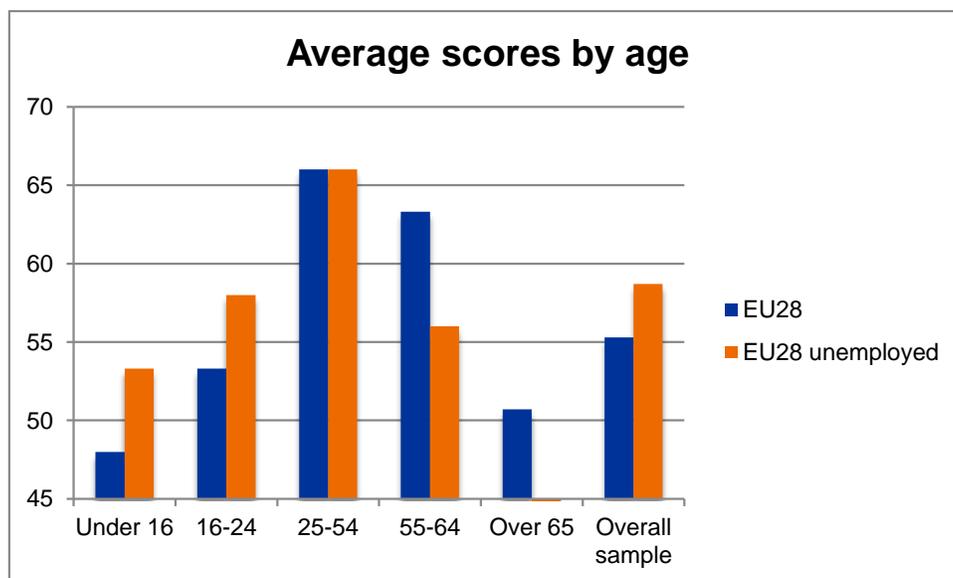
2. Youngsters have lower scores than the average (both overall and per area). While *Social media* is the area where youngsters perform comparatively better, their social media average score is equal to EU28's average scores and below those of the unemployed.
3. *Productivity* is the competence area where respondents have the lowest scores. This is a sensitive category for the labour market and might require supporting actions to reinforce this competence.

Regarding the distribution of the overall average scores based on **gender**, the graphic on the right shows that females have better scores than males in every category. However, it is known that there is a lack of women working in the ICTs field. Therefore, women may actually be better prepared to work in jobs requiring digital competences.



Policy recommendation: to raise awareness among female youngsters and employers about the fact that girls and women are well prepared to work in jobs requiring digital competence.

The following graphic shows the distribution of the average scores by age.



We can make three main highlights based on the graphic, as well as some recommendations:

1. Adults have the highest scores, and together with seniors they have higher scores than youngsters. While it is common to assume that youngsters are better equipped with digital skills, adults' skills seems to be better aligned with labour market needs probably because of their cumulated labour experience.

Action: develop/support specific training & apprenticeship programmes for youth to improve their skills for employability (like [FIT4JOBS](#)).

2. However, young unemployed perform better than senior unemployed.

Action: tailored digital training for unemployed seniors might be needed to help them continue with an active role in the labour market.

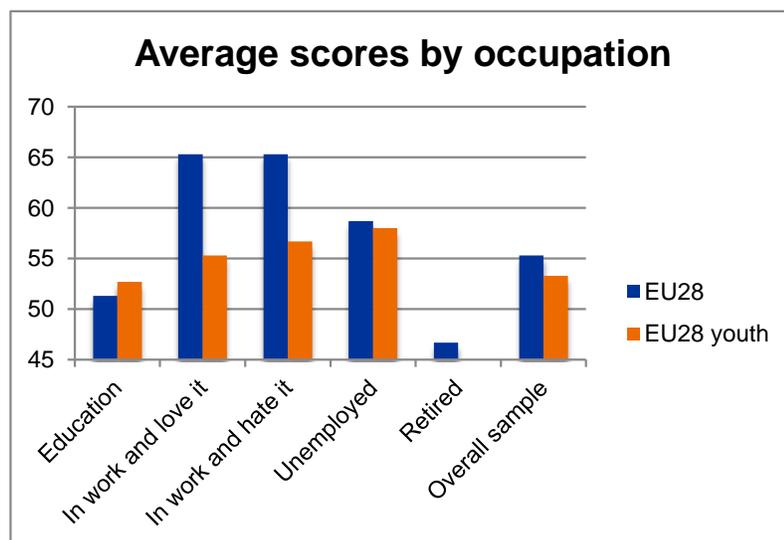
3. Children under 16 years old show a lower level of skills to fit labour market expectations, suggesting that formal education is not sufficiently tailored to satisfy the demands of the market.

Policy recommendation: specific digital competence education and training should be already introduced at school age and aligned with labour market needs.

Finally, the last graphic shows the distribution of the average scores by occupation.

A couple of comments can be made on this distribution:

1. Regardless of the levels of satisfaction, people who are working have the highest scores. This might be explained by the fact that they actually use those skills in their jobs.
2. Those in Education show low scores. While one might think that educated youngsters are better prepared, this seems to confirm that education is not preparing students well enough for their further employability.



Policy recommendation: reinforce digital skills education and training for employability at high school, vocational training, university and non-formal training for youngsters (ICT training centres, telecentres, etc.).

About Telecentre Europe

Telecentre Europe is a European non-for-profit organisation (NGO) and a member based association with a central office in Brussels, Belgium.

We represent publicly funded telecentres/telecentre networks, ICT learning centres, adult education centres and libraries across Europe where children and adults can access the Internet, learn the latest digital skills and keep up to date with technology and community developments.

We coordinate a number of projects, programmes and campaigns that empower people through ICT by finding new paths to employment, community life, relevant information and staying in touch with friends and family. All our members and partners believe that Information and Communication technology has an enormous potential to combat social exclusion and poverty.

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