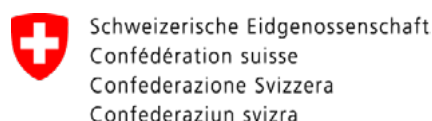


“MY SKILLS, MY CAREER SUPERPOWERS”: How ‘SkillCraft’ Helps Jobseekers to Self-Assess, Identify and Develop Skills for Jobs in South Africa

South African President Cyril Ramaphosa identifies the “crisis of youth unemployment”¹ as one of the greatest problems facing the country.

Youth – defined as those aged 18-34 – account for approximately two-thirds of the unemployed,² making South Africa the country with the deepest and most persistent youth unemployment rates in the world. These statistics are even more discouraging among historically disadvantaged and marginalized demographic groups, namely women and Black youth. One of the recognized drivers of youth unemployment in South Africa is a mismatch between the demand for more skilled labor and the supply of low educated and low skilled workers, resulting in job entry requirements that exclude most youth. Youth with an incomplete secondary education, representing 56 percent of new labor market entrants in South Africa, have less than a 50 percent probability of being employed.



South African employers are increasingly seeking workers with 21st century skills³ – which can be defined as executive function and socioemotional skills – as the workplace shifts toward the service sector, non-routine work processes, and technological adoption.⁴ Nine of the fifteen emerging and desirable skills cited by employers in South Africa⁵ can be defined as 21st century skills, including adaptability, flexibility, decision-making, resilience, and the ability to work under pressure. Fortunately, these skills do not require a high level of formal education and can be learned well into adulthood. Yet, assessing potential candidates on such skills is costly, which often results in hiring managers relying on imperfect proxies, such as education level and work experience cited in the candidate’s CV. These “information frictions” may lead to poor job matches, thereby exacerbating the youth unemployment problem⁶. In turn, this can lead to allocative inefficiency and associated high job turnover, which is particularly problematic in an environment of low job creation.

The grave employment challenges inspired the creation of the South African Presidential Youth Employment Intervention (PYEI), introduced in 2020, to coordinate the efforts of the government, private sector, and NGOs working in the youth employment space. One priority intervention is an ambitious plan to digitally connect all jobseekers with intermediation agencies, career information, skills assessments, and job preparation through the national digital platform called SAYouth.mobi.



The Project

In response to government demand, the World Bank in partnership with two of South Africa's leading youth employment programs Youth Employment Service (YES) and Harambee Youth Employment Accelerator, and with financial support from the Swiss Development Cooperation (SECO), developed SkillCraft (available at skillcraft.ml). SkillCraft is a task-based, digital, 21st century skills assessment and career guidance tool freely available to jobseekers through a computer, tablet, or mobile device.

To reach youth with low levels of literacy, SkillCraft uses games and quizzes to engage the target users, it is culturally neutral, and uses limited text. Twenty-three 21st century skills or traits are assessed through the eight games and four quizzes (Table 1), using standard assessments that have been well established in the psychology and neuroscience literature.

TABLE 1: ASSESSMENT MEASURES WITHIN SKILLCRAFT

Measures	Specific Skill/Trait
Cognitive abilities: reason, plan, solve problems, comprehend complex ideas, learn quickly.	<ul style="list-style-type: none">• Visuospatial Working Memory• Short Term memory• Selective Attention & Cognitive Control• Cognitive flexibility & Processing Speed• Fluid Intelligence & Abstract reasoning
Emotional Intelligence	<ul style="list-style-type: none">• Social awareness• Self-management• Self-awareness
Behaviors relevant for wage employment & entrepreneurship	<ul style="list-style-type: none">• Risk Tolerance• PersiWence & Distress Tolerance• Proactivity• Growth Mindset
Personality	<ul style="list-style-type: none">• Openness• Conscientiousness• Agreeableness• Emotional Stability• Extraversion
Career Interest Inventory	<ul style="list-style-type: none">• Realistic• Investigative• Artistic• Social• Enterprising• Conventional



After the jobseeker completes the games and quizzes (the skills assessment), SkillCraft immediately produces two types of personalized skills reports (Box 1). First, a one-page formal skills certificate summarizes the top skills assessed. The jobseeker can print out this certificate and attach it to his or her job application, thereby providing precise and unbiased information of these skills to potential employers. Second, based on the assessment results, SkillCraft generates an interactive digital feedback report that provides a roadmap to guide jobseekers to explore their job-related strengths and weaknesses, how their skills map into occupations that best fit their profile, links to real job vacancies in the local labor market, and links to resources to upskill and network.

BOX 1. SKILLCRAFT PROVIDES THE FOLLOWING OUTPUTS TO THE JOBSEEKER AND EMPLOYER:

1. Formal printable skills certificate designed for employers who are reviewing the jobseeker's CV

2. Interactive feedback report customized for the specific jobseeker:

a. Guidance to prepare for, identify, and select jobs aligned with the user's skills and interests, namely:

- Assessment results of the jobseeker's skill strengths and weaknesses, and information about the relevance of the skills to performance in the workplace
- Weblinks to free online upskilling resources based on the skills gaps assessed
- Weblinks to information and job search in the locality for occupations that match the user's interests and skills

b. Guidance for potential Entrepreneurs:

- Assessment results of the jobseeker's skill strengths and weaknesses, and the relevance of the skills to success in entrepreneurship/self-employment
- Weblinks to resources, including funding avenues, in addition to networking and innovation platforms
- Weblinks to free online upskilling resources for entrepreneurs

The World Bank team, together with YES, tested SkillCraft's effectiveness in assessing skills among different types of jobseekers and evaluated its impact on job seeking behaviors. The team carried out a pilot with over 1,300 young South African jobseekers from May through August 2021. The aim of the pilot was two-fold: 1) to determine if SkillCraft can reliably be used to assess 21st century skill strengths with the target demographic – disadvantaged, unemployed South African youth – irrespective of education level or gender; and 2) to estimate the impact of SkillCraft's interactive feedback report on the jobseeker's search effort, search behavior, and reservation wage (the lowest wage at which the jobseeker would accept a job). The second objective was tested by comparing the outcomes of jobseekers who only received the formal skills certificate (comparison group) to outcomes of jobseekers who received the formal skills certificate and the interactive feedback report mapping their skill strengths to occupations (treatment group).

The Results

SkillCraft is a valid and reliable assessment of 21st Century skills for disadvantaged, young, unemployed South African jobseekers, providing an equitable assessment regardless of education level or gender. The team tested whether the games measure what they are intended to measure, and whether the quizzes perform well as psychometric scales (e.g., validity and reliability tests). Education level and gender were not correlated with the performance on any of the tasks, suggesting that people of a specific gender or with higher levels of formal education do not perform better or worse on the assessment than do those of the other gender or less education. Further, the quizzes were shown to perform well as psychometric scales for the demographic.

Moreover, SkillCraft was found to provide valuable feedback and to increase job-search and upskilling efforts of young jobseekers.

- **SKILLCRAFT'S INTERACTIVE REPORT PROVIDES VALUABLE JOB-RELEVANT FEEDBACK TO THE JOBSEEKERS.**

Young jobseekers who received the interactive feedback report were 5 percent more likely to better understand their job-related strengths and weakness than the comparison group. The jobseekers who received the interactive feedback report were also 8 percent more likely to state that the information was valuable for getting a job than the comparison group. Further, they were 3 percent more likely to cite that attaching the formal skills certificate to their CV will help them get an interview in relation to the comparison group.

- **THE INTERACTIVE REPORT IMPROVED SHORT TERM JOB SEARCH BEHAVIOURS.**

First, it increased job search efforts. Jobseekers were more likely to increase the number of jobs they plan to apply to by 2 percent if they received the interactive feedback report compared to the comparison group. Second, the interactive report shifted job search expectations in the short run including an increase in reservation wage. Jobseekers were 21 percent more likely to increase the minimum pay they would be willing to accept (the reservation wage) after receiving the interactive feedback report compared to the comparison group; thus, the jobseekers understood that their skills are valuable in the job market, which could lead to greater allocative efficiency or reduced turnover. They were also 2 percent more likely to shift their job search toward jobs aligned with their career interests.

- **THE INTERACTIVE REPORT WAS ASSOCIATED WITH GREATER PROACTIVITY IN USING THE FORMAL SKILLS CERTIFICATE.**

Those with an interactive report were 57 percent more likely to email the formal skills certificate to employers. This may reflect that the interactive report's discussion about the relevance of 21st century skills in the workplace helped jobseekers understand the value of communicating these skills to employers, thus inducing them to share their formal skills report with potential employers.

- **EFFECTS ARE IN LINE WITH OTHER EVALUATIONS OF INTERVENTIONS AIMED TO INCREASE LABOR MARKET OUTCOMES OF SOUTH AFRICAN YOUTH.⁷**

For example, formal skills certification by itself increases earnings and employment but does not change job search efforts.⁸



It has been a great use on my CV, I've got some few interviews lined up





I like the report very much since it helped me to know myself better and taught me how to handle my emotions and reactions towards other people as we view the world differently.

Policy Implications

These results make a strong case for including SkillCraft as part of the package of intermediation support tools to unemployed youth, especially those who are socio-economically disadvantaged and those who are hard to reach. Skillcraft can provide career orientation and guidance to youth who may not have access to or be comfortable with standard face-to-face intermediation services. However, Skillcraft can also play a role for public or private job search centers that provide face-to-face services, by providing unbiased information about the jobseeker and customized job opportunities and skills development opportunities that job counselors can use to help orient their clients.

FUTURE DIRECTIONS:

SkillCraft is currently undergoing adaptations and rollout. It is available on a trial basis on the national youth website, SAYouth.mobi, which reaches close to over 3 million South African youth. Once piloted with adaptations made as needed, SkillCraft would also be tested in other World Bank client countries. Further research is underway to understand SkillCraft's longer-term impact on labor market outcomes of unemployed South African youth.

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REFERENCES:

- 1 Ramaphosa, Cyril. 2020. "President Cyril Ramaphosa: 2020 State of the Nation Address." South African Government Press, February 13, 2020.
- 2 Reuters Staff. 2019. "South Africa youth unemployment a 'national crisis': president." Reuters – Emerging Markets, June 16, 2019.
- 3 The term "21st century skills" captures the full set of executive function skills, behaviors, mindsets, and socio-emotional skills in demand by the labor market.
- 4 Harambee. 2020. "Final Report Mapping of Digital and ICT Roles and Demand in South Africa". November 2020.
- 5 World Economic Forum. 2020. "The Future of Jobs Report: 2020." World Economic Forum, October 2020.
- 6 Carranza, Eliana; Garlick, Robert; Orkin, Kate; Rankin, Neil. 2020. Job Search and Hiring with Two-Sided Limited Information about Workseekers' Skills. Policy Research Working Paper No. 9345. World Bank, Washington, DC.
- 7 All effects reported were also statistically significantly different from zero at the 95 percent confidence level.
- 8 In their study (Carranza, Garlick, Orkin, and Rankin, 2020), the certification did not change the extensive nor intensive margins of job search effort as measured by probability of any job search, number of applications submitted, hours spent searching, and money spent on search. With an employment rate of certified jobseekers below 40 percent (Card, Kluge, and Weber (2017), Carranza et al (2020)) suggests this may point to additional limited information frictions on the supply side, which is what our study addressed.