A Study of the WRN! Credential Test’s Relationship to Youth Jobs and Employer Satisfaction

Fall 2015

Background
Employers and training providers around the world have expressed a need for a way to ensure that job seekers have the requisite work readiness skills and attitudes to be successful on the job. In response to this need, Education Development Center, Inc. (EDC), has developed a work readiness credential and digital badge. This Work Ready Now! (WRN!) assessment is one of the first work readiness credentials targeting youth in developing countries. In order to determine the predictive validity of the WRN! credential test, such that a high score associates with a higher probability of becoming successfully employed in the formal economy or self-employed, EDC examined a group of youth in Rwanda and followed up with them and their employers one to two years after youth graduated from the USAID-funded Akazi Kanoze work readiness training program. The objective of this study was to gain more clarity on the linkages between scores on the WRN! test and employment outcomes and employer satisfaction levels. This information is helpful for EDC, the employers and other organizations interested in using the WRN! credential test.

Methodology
The evaluation design is non-experimental with a post-test and follow-up study of youth in Rwanda. In September 2013, 157 graduates of the Akazi Kanoze program took the WRN! credential test. About one year later, in August 2014, EDC followed up with graduates using a livelihoods survey tool that had been previously piloted with Akazi Kanoze youth. A total of 113 youth completed the livelihoods follow-up survey. In March 2015, employers of these youth were contacted, and 49 supervisors were administered an employer satisfaction survey. The quantitative data were analyzed using Statistical Package for Social Sciences (SPSS). Central tendency analysis (e.g., mean, median) and comparison of means statistical tests were conducted.

WRN! Credential Test
The test is based on EDC’s Work Ready Now! (WRN!) standards-based work readiness curriculum. Using both situational judgment and knowledge-based test items, the certification focuses on non-cognitive skills such as teamwork, problem solving, and customer service.
Akazi Kanoze

Established in 2009, Akazi Kanoze, meaning “work well done” in Kinyarwanda, provides Rwandan youth ages 14–35 with market-relevant life and work readiness training and support, hands-on training opportunities, and links to the employment and self-employment job market. Akazi Kanoze builds capacity and creates linkages between youth, the Rwandan economy, and the public and private sector so that youth can access increased opportunities for productive engagement in society. Youth receive work readiness and entrepreneurship training in addition to internship opportunities for on-the-job learning, job placement services, and/or business startup coaching. At the end of the program, youth receive a certificate signed by the Rwandan Workforce Development Authority (WDA). As of July 2015, the USAID-funded project has provided relevant education and workforce training to 18,939 Rwandan youth.

Findings

WRN! Credential Test Results

A total of 157 youth (92 males, 65 females) took the WRN! credential test in September 2013. The passing mark was 70 percent or more. About 73 percent of these youth passed the WRN! test. More females passed than males, but the difference was not statistically significant. Overall, the mean score was 72.8 percent with no significant difference between male and female test takers. For those who passed, the average score was 79.4 percent, and for those who failed, the average score was 57 percent.

For this study, the results of the WRN! test were matched to the results of the 113 youth who completed the livelihoods survey. Thus the test results of 44 youth cannot be correlated with employment outcomes. There is no statistically significant difference between these 44 youth and the 113 youth who completed the livelihoods survey on the WRN! subtest, pass/fail rate, and percentage correct. Furthermore, there is no correlation between observables (gender, age, date of graduation, employment status) and not taking the follow-up survey. Going forward, this analysis will refer to the 113 youth that matched the WRN! credential tests and livelihoods surveys.

Of the 113 youth that took both the test and the livelihoods follow-up survey, 73.5 percent passed the test with a mark of 70 percent or more. The mean score was 72.9 percent with a range from 28 to 94 percent correct. There was no significant difference in percentage correct between male and female test takers. Females scored higher on two subsections of the test: (1) work habits and conduct and (2) worker’s rights and responsibilities (significant at the p < .025 level).

Employment Outcomes of the Test Takers

One part of the Akazi Kanoze project is to provide youth with on-the-job training and internships. About 76 percent of these youth were placed in an internship after completing Akazi Kanoze. Of youth with internships, 76 percent felt that the internship experience had helped them secure a job afterward.
At the time of the follow-up survey, one to two years after graduating from Akazi Kanoze, 73.5 percent of youth were employed, about 22 percent of youth were unemployed, and 4.5 percent were students. There is a statistically significant difference in employment rates between males and females. Males reported significantly higher levels of employment than female respondents (at the p < .001 level).

Of the youth that were working at the time of the follow-up survey, the largest percentage was self-employed (see graph below). Although about 31 percent reported being self-employed, more than 50 percent of respondents had started a new business or income-generating activity after graduation, with some new startups not lasting.

What types of employment are youth reporting?
Youth reported their employment status and employment type one to two years after they graduated from the Akazi Kanoze project.

Youth reported working in a variety of industries, but the construction industry employed the most youth with over 27 percent of youth engaged in some form of construction work. The following is a breakdown of industries in which youth were working:

- Hospitality – 11.4 percent
- Construction – 27.3 percent
- Information and communications technology – 17 percent
- Agri-business – 17 percent
- Supply chain and services – 12.5 percent
- Other – 14.8 percent

The majority of youth had worked one to two jobs since graduating Akazi Kanoze. Less than 15 percent had worked three or more jobs since graduating, which shows that for most graduates the rate of job turnover was not very high.
WRN! Credential Test Linkages to Employment

Overall, the correlation between percentage correct on the WRN! test and being employed is negative, but this is due to the fact that the 30 youth who failed were all employed at the time of the follow-up survey (at the \( p < .001 \) level). This negative correlation includes all types of employment—self-employment as well as family (for payment), cooperative, temporary/casual, and full-time employment. The Akazi Kanoze project and EDC at large are interested in assisting youth in finding new or better-quality employment that can increase their productive engagement in society. EDC is particularly interested in measuring the predictive validity of the WRN! test to predict whether youth with higher scores will obtain employment in the formal economy or be successful in self-employment.

When the results are disaggregated by employment type, each with its own varying level of quality and permanence, there are **statistically significant correlations between WRN! test scores and finding full-time employment** (at the \( p < .025 \) level). Although all the youth that failed the test had some sort of employment at the time of the follow-up, youth with lower scores reported more unstable, part-time positions than youth who scored higher. Only 3 percent of youth who failed reported working for someone not in their family on a full-time basis. In contrast, over 19 percent of youth who passed the test worked full-time for someone (difference between groups statistically significant at the \( p < .001 \) level).

When comparing youth who passed with the youth who failed the test, there are significant differences in the type of work that youth reported (see graph below). **Youth who failed the test reported high levels of self-employment, whereas youth who passed had significantly lower levels** (difference between groups statistically significant at the \( p < .001 \) level). There is a negative correlation between test scores and working for one’s family or in a cooperative. About 23 percent of youth who did not pass the test worked with others in a cooperative, whereas only 7 percent of youth who passed reported working in a cooperative. This difference between groups is statistically significant at the \( p < .001 \) level. Similarly, about 23 percent of youth who did not pass the test reported working for their families, whereas only 3.6 percent of youth who passed worked for their families (difference between groups statistically significant at the \( p < .001 \) level).
What are the differences in employment type among youth who passed or failed the test?

Youth who passed the WRN! test had higher rates of full-time employment, whereas youth who failed the test reported higher rates of self-employment and family employment.

Youth were asked about the reason that they left their last job. **There is a negative correlation between test scores (percentage correct) and being fired.** The better youth did on the WRN! test, the less likely they were to have been fired from their past job (significant at the p < .01 level).

Additionally, youth reported whether the reason they left their last job was to move to a better job or opportunity. **There is a positive correlation between the WRN! test scores (percentage correct) and leaving for a better job** (significant at the p < .01 level). Youth that did better on the test were more likely to move to a better work opportunity, as opposed to being fired or having a temporary job end. With this said, working youth who did better on the WRN! test reported being more dissatisfied with their current job than youth who did worse (significant at the p < .01 level). There was no statistically significant relationship between scoring a high mark on the test and reporting earning more in one's current job than before.

**Employers’ Satisfaction**

Forty-nine employers were surveyed about the performance of the Akazi Kanoze graduates working for their companies. These employers were all in the formal sector, ranging from nonprofit organizations to government agencies and large private sector companies. Each employer was asked to rate the employee’s performance in a number of areas, including problem-solving skills, teamwork skills, communication skills, work habits, technical skills, and overall performance (see graphs below).
How did employers rate Akazi Kanoze graduates on skill areas?

Employers rated the Akazi Kanoze employees as “excellent,” “good,” “fair,” or “poor.”

<table>
<thead>
<tr>
<th>Skill Area</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
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</thead>
<tbody>
<tr>
<td>Problem solving skills</td>
<td>46.9%</td>
<td>46.9%</td>
<td>6.1%</td>
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<tr>
<td>Workplace habits and conduct</td>
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<tr>
<td>Teamwork skills</td>
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<td>Technical skills</td>
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<td>Communication skills</td>
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<td>Overall performance</td>
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</tbody>
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Overall, female Akazi Kanoze graduates were scored higher for on-the-job performance than their male peers. There was a statistically significant difference in some skill areas between how employers rated male and female employees. Employers rated female employees significantly better than male employees in teamwork, communication, and overall performance (at the p < .05 level).

Of all skill areas included in the employer survey, the only one that had a statistically significant positive relationship with WRN! test scores was teamwork. Significant at the p < .05 level, youth who scored better on the WRN! test were more likely to be rated highly for their teamwork skills.

In addition to rating youth on these different skills, employers were asked to rate the Akazi Kanoze graduates compared to other employees their same age and level. About 70 percent of employers rated the Akazi Kanoze employees better than their work counterparts.
Although “somewhat worse” and “much worse” were options, no employers rated the Akazi Kanoze graduates as performing worse than their other employees.

**How did employers rate Akazi Kanoze graduates compared to their peers?**

The majority of employers rated Akazi Kanoze youth as performing better than their work counterparts. No employers rated the Akazi Kanoze youth as performing worse than their peers.

There was no statistically significant correlation between high employer satisfaction levels and scoring well on respective subsections of the WRN! test. For example, there was no significant relationship between scoring highly on the “leadership and teamwork” subsection of the WRN! test and employer score for “teamwork skills.”

<table>
<thead>
<tr>
<th>WRN! Test Subsection</th>
<th>Corresponding Employer Satisfaction Areas</th>
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</thead>
<tbody>
<tr>
<td>Leadership and teamwork</td>
<td>Teamwork skills</td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>Communication skills</td>
</tr>
<tr>
<td>Work habits and conduct</td>
<td>Work habits</td>
</tr>
</tbody>
</table>

**Conclusion**

The objective of this study was to test the predictive validity of the WRN! credential test in order to better understand if a high score associates with a higher probability of gaining employment.

With this small sample, there are statistically significant correlations between WRN! test scores and finding full-time employment (at the p < .025 level). Although all the youth that failed the test
had some sort of employment at the time of the follow-up, youth with lower scores reported more unstable, part-time positions than youth who scored higher.

The research shows that youth with higher scores on the test were more likely to move to a better work opportunity as opposed to being fired or having a temporary job end. With this said, working youth who did better on the WRN! test reported being more dissatisfied with their current job than youth who did worse. With a small sample size and no counterfactual, it is difficult to know the cause of this negative correlation.

Almost all of the employers surveyed rated their Akazi Kanoze employees as “excellent” or “good” in several work areas. Overall, female Akazi Kanoze graduates were rated better by employers than male graduates. Additionally, about 70 percent of employers rated the Akazi Kanoze employee as better compared to other employees of their age and position. No employer rated their Akazi Kanoze employee as performing worse than their work counterparts.

This study was only a first step in testing predictive validity of the WRN! test. While the findings suggest some statistically significant links between test scores and employment outcomes, further research would determine if these results hold. Although it was challenging to collect longitudinal data on youth, further studies to learn about the relationship between soft skills and employment outcomes will benefit both employers and youth-serving organizations.

**For More Information**

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