

MEASURING YOUTH'S SOFT SKILLS ACROSS CULTURES:

EVIDENCE FROM THE PHILIPPINES & RWANDA

A REPORT PRODUCED FOR
WORKFORCE CONNECTIONS

BY
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INTRODUCTION

Soft skills are widely recognized by the youth workforce development sector, employers, and educators as essential to success in the workplace. With research suggesting the malleability of soft skills in youth as well as high employer demand for employees with strong soft skills (Lippman, Ryberg, Carney, & Moore, 2015), professionals in the youth workforce development space have responded with organization, programmatic change, and a deep commitment to the youth we serve.

As the evidence for the importance of soft skills on the job continues to emerge, our attention must focus not only on how to improve youth's soft skills but on how to reliably *measure* them. This endeavor is one that requires the collaboration of the assessment, psychology, and youth workforce development fields in order to develop, test, analyze, and retest tools that measure such skills.

The following report details the collaborative effort of Education Development Center (EDC), Professional Examination Services (ProExam), and Akilah Institute for Women through Workforce Connections to improve the measurement of youth's soft skills. The team sought to develop and test a tool to reliably measure soft skills across cultural contexts using various methodologies to assess constructs comprising the Big Five Factor Model (e.g., Benet-Martinez & John, 1998).

The Big Five Factor Model

The Big Five Factor Model was “discovered” in 1936 by two American psychologists, Gordon Allport and H.S. Odbert, who searched Webster's dictionary for words in English that described human personality (Roberts, Martin, & Olaru, 2015). Later research reduced and consolidated Allport and Odbert's list of 4,500 personality traits to five factors (the ‘Big Five’ or ‘CANOE’ factors):

- **Conscientiousness: One's propensity to organize and achieve**
A conscientious person is likely to be on time, thorough, and hard working.
- **Agreeableness: One's positivity in interactions with others**
People who are more agreeable are viewed as friendly or helpful as opposed to “cold”.
- **Neuroticism/Emotional Stability: One's ability to manage stressful situations or emotions**
An emotionally stable person is often less worried or depressed and can also be less cautious than someone who is less emotionally stable.
- **Openness: One's capacity to enjoy “new” ways of thinking about the world**
An open person may be highly receptive to new cultures or artistic experiences or to learning something new. This dimension is closely related to one's cognitive abilities.
- **Extraversion: One's propensity towards social interaction**
More extraverted people are socially dominant and may tend toward sensation seeking, while less extraverted people are more reserved and less dominant in social situations.

While the Big Five Factor Model was defined in the United States using an English-language based psycholexical approach, studies soon replicated the model all over the world, suggesting that the model—despite its origin in English language-based analysis—is applicable to individuals across cultures and tends toward the universal (e.g., McCrae & Terracciano, 2005).

Measuring the Big Five Factors

While research suggests the robustness of the Big Five Factor Model across languages and cultures, efforts to measure youth's expression of the Big Five factors across languages and cultures have not been so robust. Although the Big Five Inventory (BFI; Benet-Martinez & John, 1998) has been translated into over 28 languages and is one of the most widely available tools to measure the Big Five factors, its implementation has been limited primarily to countries with membership in the Organization for Economic Cooperation and Development (OECD) (see Figure 1). Thus, further development and testing of the BFI tool in diverse contexts was necessary to understand the potential of the BFI to measure soft skills among youth in developing countries.

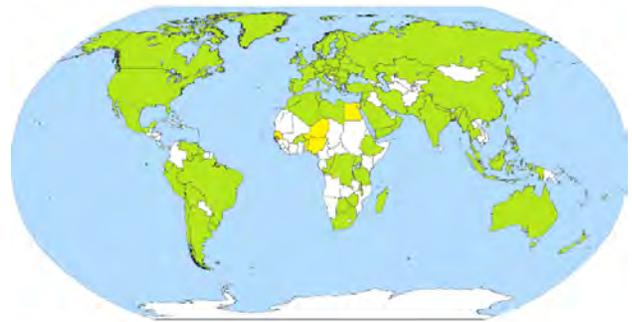


Figure 1: The Big Five's Universality (Countries with near perfect replication are in green, partial replication in yellow, and no evidence yet in white.)

This Study's Goals

Building on the existing evidence from OECD countries on the Big Five Factor Model, the goal of this study was *to develop a psychometrically sound soft skills assessment appropriate for multiple developing country contexts*. Recognizing the need for a soft skills assessment that could be implemented reliably across several cultures, the study involved the development of two item types to be applied alongside the BFI: anchoring vignettes and situational judgment tests. These two items would result in a BFI that is adaptable to different contexts and provides a complement to existing self-report items that characterize the BFI, thereby improving the validity of the assessment.

Anchoring Vignettes (AVs). The BFI is composed of 44 self-report questions, which are highly vulnerable to bias as individuals may respond to these questions using different standards. When such questions are implemented across different cultures, they become even more susceptible to bias due to the respondents' standards. For example, a Rwandan respondent might "strongly agree" that she or he is a calm person, but this might mean something completely different than when a Filipino respondent "strongly agrees" that she or he is a calm person.

Measuring soft skills through self-report items is fraught with the possibility of such reference bias when analyzing results across cultures.

Big Five Inventory (BFI)

The Big Five Inventory (BFI Benet-Martinez & John, 1998) is a popular, 44-item, self-report measurement instrument developed to measure an individual's Big Five skills. Much of the tool's popularity is due to the small amount of time required to complete the questionnaire as well as its psychometric qualities. The average reliability of the scales is $\alpha = .80$, and the BFI has proven to be stable over time with a retest reliability of around .85. Items consist of short phrases, starting with "I see myself as someone who..." and ending with a prototypical Big Five trait marker (e.g., "is relaxed, handles stress well"). Every factor is measured by 8 to 10 items. Responses are given on a 5-point Likert scale, ranging from 1 ("disagree strongly") to 5 ("agree strongly").

Anchoring vignettes are a test item that corrects for cultural or contextual bias by allowing for the re-scaling of self-report items based on a respondent’s reaction to hypothetical individuals in a range of situations (Hopkins & King, 2010; King, Murray, Salomon, & Tandon, 2004). An anchoring vignette presents three hypothetical individuals who exhibit a key soft skill but to different degrees: low, medium, and high (see Figure 2 for an example of a Conscientiousness AV item). Each person has to be rated on the construct in question. Based on how a respondent ranks these hypothetical individuals, the assessor can understand that individual’s standards and rescale the respondent’s BFI answers accordingly.

<i>Based on the below information, to what extent do you agree that this individual is conscientious/hard-working?</i>				
Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
Tony tends to be somewhat careless. Other workers comment also that he is lazy. Tony often also appears disorganized.				
Peter is a reliable worker and does all work with great efficiency. But he is easily distracted.				
Alice always does a thorough job. She perseveres until all tasks are finished. Alice also makes plans and follows through with them.				

Figure 2: Sample Anchoring Vignette

Situational Judgment Tests (SJTs). In addition to reference bias, self-report questions are susceptible to faking. One way to mitigate the faking problem is through the use of situational judgment tests (Lipnevich et al., 2013). By presenting a hypothetical scenario and asking the respondent to indicate what he or she would likely do, situational judgment tests reduce the effects of faking since the “correct” response might not always be obvious (e.g., see Figure 3).

<i>You are working at a hotel when guests ask you for directions to a local restaurant. You are not exactly sure of the exact location or the address of the restaurant, but you have a general idea of which direction it is in. You know that the restaurant is within walking distance. You have a lot of work you have to accomplish before going home for the evening. What are you likely to do?</i>				
Very Unlikely	Somewhat Unlikely	May or May Not Do This	Somewhat Likely	Very Likely
Point them in the general direction of the restaurant as quickly as possible so you can complete the rest of your work.				
Politely suggest that they ask someone else so you can get back to work.				
Find the address and also find a map so you can show the guests exactly where to go.				
Find a map and give it to them. Tell them this is the best you can do and get back to your normal work.				
Pretend not to be able to understand them so you can continue with your normal work.				

Figure 3: Sample SJT item

This report presents study findings that show the BFI *with* anchoring vignettes (hereafter referred to as the **Anchored BFI**) is a more reliable measure of soft skills in two contexts than it is without vignettes. The report also shows the value of measuring conscientiousness with the situational judgment test approach.

The report is organized into three sections. The first section explains the study’s methodology, including test development and implementation. The next section shares findings on the reliability of the Anchored BFI as well as correlations between the tool and external outcomes, such as life satisfaction, counterproductive behavior, and employment outcomes. The final section provides a summary and conclusion.

METHODOLOGY

To develop and establish the reliability and validity of a soft skills assessment that could correct for cultural bias, the researchers undertook four key tasks:

1. Developing anchoring vignettes to accompany the BFI, as well as situational judgment test items
2. Implementing these assessments with youth in Rwanda and in the Philippines
3. Implementing a follow-up employment survey with youth in Rwanda
4. Implementing an employer satisfaction survey with Rwandan youths’ employers

Item Development and Analysis

In collaboration with experts from the fields of assessment, youth workforce development, and psychology, the researchers developed five anchoring vignettes (one for each of the Big Five Factors) and nine situational judgment test items.

Anchoring Vignettes. Each of the five anchoring vignettes measures a respondent’s understanding of one of the Big Five Factors and includes descriptions of three hypothetical people who express a Big Five Factor to a low (Vignette 1), medium (Vignette 2), or high (Vignette 3) degree. A respondent’s ordering of three hypothetical people as to their level of expression of a

particular soft skill in an anchoring vignette allows for the re-scaling of the BFI’s self-report questions from a 5-point Likert scale to a 7-point scale. A respondent’s self-rating on the BFI for a skill is compared to his or her ordering of the three hypothetical people for the same soft skill. Based on the relationship between a respondent’s self-report score and his or her correct or modified ordering of the three people, the respondent is given a new score for that particular BFI self-report question. For example, as shown

Relative Order Ratings	Adjusted Score
Self < Vignette 1 < Vignette 2 < Vignette 3	1
Self = Vignette 1 < Vignette 2 < Vignette 3	2
Vignette 1 < Self < Vignette 2 < Vignette 3	3
Vignette 1 < Self = Vignette 2 < Vignette 3	4
Vignette 1 < Vignette 2 < Self < Vignette 3	5
Vignette 1 < Vignette 2 < Self = Vignette 3	6
Vignette 1 < Vignette 2 < Vignette 3 < Self	7

Table 1: Rescaling the BFI with Anchoring Vignettes

in Table 1, if a respondent correctly orders the three hypothetical people but rates himself or herself on the BFI questions that measure the same skill as having a lower level of that skill than all three people, that respondent’s new score on the BFI question is now 1.

Situational Judgment Tests (SJTs). Nine SJT items were constructed to measure one factor, conscientiousness, allowing for a deeper understanding of three facets of this trait: industriousness, self-control, and persistence. SJT items present hypothetical situations and ask respondents the likelihood that they would respond in five ways on 5-point Likert scales. SJT items were developed by ProExam and then examined by a group of 10 personality experts, who scored the SJT items and response options based on the effectiveness of each response to the situation and on the item's ability to represent the facet. Effective responses reflect a high level of conscientiousness, and this assumption was supported by the high overlap between the experts. The effectiveness ratings were then used in further analysis.

SJT scores were constructed by taking the difference between experts' and respondents' responses on each of the five response options for a situational judgment test. These five response option scores were then added up to create a single score for each SJT item.

Anchored BFI Implementation

The Anchored BFI and the SJT items were implemented in the Philippines and Rwanda. In each country, the tool was translated into the local language and then translated back into English to ensure that the content was preserved, followed by cognitive testing, piloting, and revisions to the tool. The final tool was then implemented in a proctored setting:

- **Philippines:** General secondary and TVET¹ students took the assessment using paper and pencil due to programmatic constraints. The sample included 143 students:
 - 99 females and 44 males
 - Ages ranged from 14 to 19 years, with an average age of 15.50 years
- **Rwanda:** University, secondary school, and out-of-school youth took the assessment on tablets using survey software. The sample included 423 youths:
 - 356 females and 67 males
 - Ages ranged from 15 to 33 years, with an average age of 21.79 years

Follow-Up Surveys

Roughly six months after taking the assessment, youth in Rwanda who indicated their willingness to participate in two follow-up surveys were contacted to take a brief **employment survey**, and the employed youths' employers were also contacted for an **employer satisfaction survey**. These surveys obtained data that, when correlated with Anchored BFI and SJT results, would allow for the validation of the survey's ability to reveal the relationship between levels of soft skills and employment outcomes.

¹ TVET stands for technical and vocational education and training.

FINDINGS

As this study’s goal was to develop a psychometrically sound soft skills assessment, analysis focused largely on the reliability and validity of the tool in the two contexts in which it was implemented. Analysis emphasized comparisons between the BFI’s reliability and validity before and after its adjustment with anchoring vignettes, as well as the ability of situational judgment tests to improve the prediction of outcomes beyond the BFI.

Anchoring Vignettes and Their Effect on Tool Reliability

Almost every test of the BFI before and after adjustment with anchoring vignettes revealed benefits associated with this methodology. Improvements occurred regarding the Anchored BFI’s reliability, factor structure, and ability to discriminate levels of skill. The application of AV items, therefore, allowed the same Anchored BFI to be adopted in different contexts reliably and informatively. The rest of this section provides evidence supporting this set of assertions.

Improved Reliability. The reliability of the BFI improved in both the Philippines and in Rwanda after the tool was re-scaled using AV items. The application of exploratory factor analysis (EFA) revealed the improved factor structure of the Anchored BFI. EFA clusters items into factors based on their correlations. After the adjustment, five relatively robust factors emerged reflecting the Big Five. To further assess the internal consistency and reliability of the scale, Cronbach’s alpha was examined. Traditional standards for reliability suggest that an $\alpha > 0.7$ is acceptable, an $\alpha > 0.8$ is good, and an $\alpha > 0.9$ is excellent. Figure 4 below displays Cronbach’s alphas for each of the Big Five Factors as measured in both Rwanda and the Philippines; in each instance, **the reliability of the tool increased for both countries when the Anchored BFI was used.**

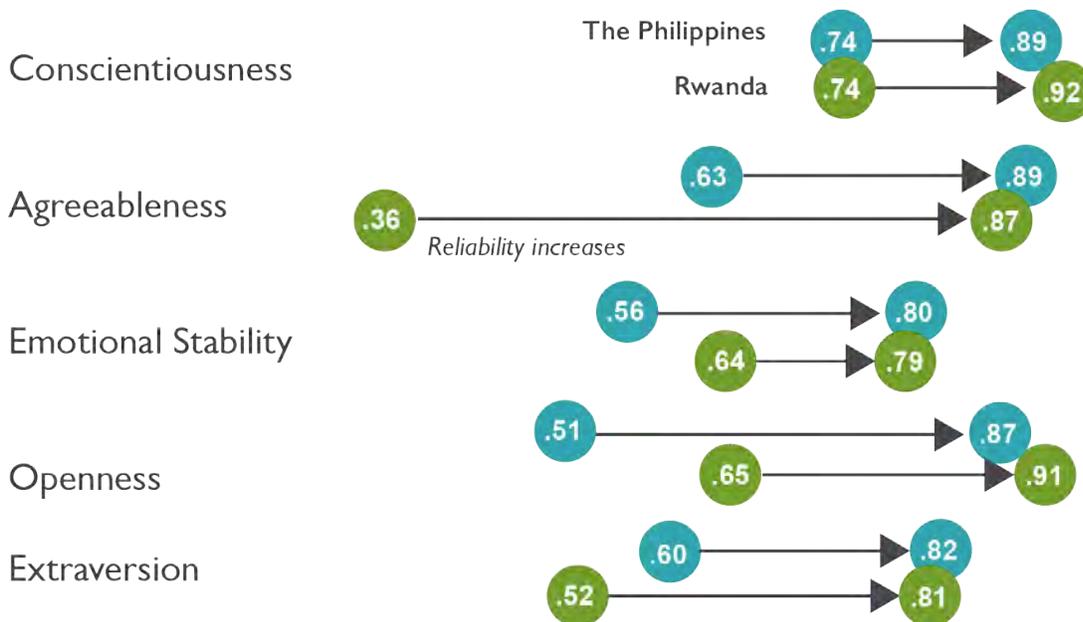


Figure 4: Reliability Test for BFI with and without Anchoring Vignettes. Cronbach’s alphas are displayed for each Big Five Factor for the BFI with and without AV items in each country. The acceptable measure of reliability is .70 or higher.

THE ANCHORED BFI: A SOFT SKILLS MEASUREMENT TOOL

In addition to improved reliability in measuring each dimension, confirmatory factor analysis of BFI self-report items that measure each of the five dimensions reveals that items better explain each of the dimensions after the addition of anchoring vignettes. As Table 2 displays, before adjustment, factor loadings were mostly low (mostly below .5), while after adjustment, loadings were medium or even high (mostly .5 and higher).

Further, examining the fit of the BFI before and after adjustment to the actual model reveals that, **while the fit after adjustment was still not stellar, it did improve.** This suggests that the results of the Anchored BFI are more in line with the theoretical structure of the Big Five model and are likely a better measure of an individual’s level of a particular factor.

	Pre-Adjusted	Post-Adjusted		Pre-Adjusted	Post-Adjusted
<u>Extraversion</u>			<u>Neuroticism</u>		
Item 1	0.07	0.58	Item 4	0.40	0.47
Item 6	-0.12	0.33	Item 9	0.46	0.44
Item 11	0.51	0.72	Item 14	0.56	0.69
Item 16	0.18	0.62	Item 19	0.14	0.54
Item 21	-0.01	0.50	Item 24	0.42	0.54
Item 26	0.58	0.65	Item 29	0.50	0.65
Item 31	0.12	0.45	Item 34	0.50	0.58
Item 36	0.45	0.81	Item 39	0.53	0.71
<u>Agreeableness</u>			<u>Openness</u>		
Item 2	0.27	0.30	Item 5	0.63	0.85
Item 7	-0.45	0.83	Item 10	0.52	0.75
Item 12	-0.02	0.52	Item 15	0.53	0.80
Item 17	-0.45	0.85	Item 20	0.40	0.75
Item 22	-0.03	0.54	Item 25	0.70	0.80
Item 27	-0.52	0.68	Item 30	0.42	0.71
Item 32	-0.51	0.84	Item 35	0.07	0.60
Item 37	-0.12	0.50	Item 40	0.48	0.80
Item 42	-0.50	0.86	Item 41	0.31	0.61
<u>Conscientiousness</u>			Item 44	0.16	0.49
Item 3	0.66	0.79	<u>Model Fit Indices</u>		
Item 8	0.56	0.71	χ^2 (df)	2751.76 (892)	2684.45 (892)
Item 13	0.54	0.75	CFI	0.64	0.85
Item 18	0.57	0.75	RMSEA 95% C.I.	0.060 – 0.065	0.059 – 0.064
Item 23	0.59	0.74			
Item 28	0.56	0.77			
Item 33	0.66	0.80			
Item 38	0.56	0.75			
Item 43	0.53	0.67			

Table 2: Factor Loadings and Model Fit Before and After Adjustment. Higher CFI and lower RMSEA reflects better model fit.

Discrimination. While the Anchored BFI proved to be more reliable than the original BFI in the Philippines and Rwanda, the next step was to establish how well the two versions could detect even small soft skill differences between respondents. The test that was better at predicting an individual's estimated level of soft skills in a particular context would have a greater ability to distinguish between subtle differences in soft skills between individuals, that is, a higher discriminatory power.

To compare the level of discriminatory power between the original BFI and the Anchored BFI, the researchers fit a graded response model for both sets of scores, examining the fit for each test item. For every single item, after rescaling using anchoring vignettes, **the discriminatory ability of the test increased**, suggesting that the Anchored BFI more precisely measured soft skills in the Philippines and Rwanda than did the original BFI.

Improved Information. Even a reliable and discriminatory test might not deliver accurate information for all types of respondents with all levels of soft skills. For example, the test might provide more reliable information for respondents with a lower level of soft skills than with a higher level of soft skills. Thus, the researchers examined the test information curve and its relationship to standard errors to see if test information improved after anchoring the BFI. As shown in Figure 5, higher information (blue line) paired with a lower standard error (pink line) yielded a better test.

As Figure 5 displays, the BFI after adjustment with anchoring vignettes provided more test information for a wider range of person parameters than did the test pre-adjustment. This is displayed in a larger area below the test information line (blue) and the smaller area below the standard error line (pink) in the post-adjustment graph. While the unadjusted BFI was not able to discriminate well between individuals with trait levels above the average, the adjusted BFI was able to measure with higher precision in higher spectrums of the scale. In other words, the Anchored BFI allows for the **reliable assessment of a broader range of individuals**. This improved ability to reliably assess a broader range of respondents means that the Anchored BFI allows researchers to achieve power and precision in measurement.

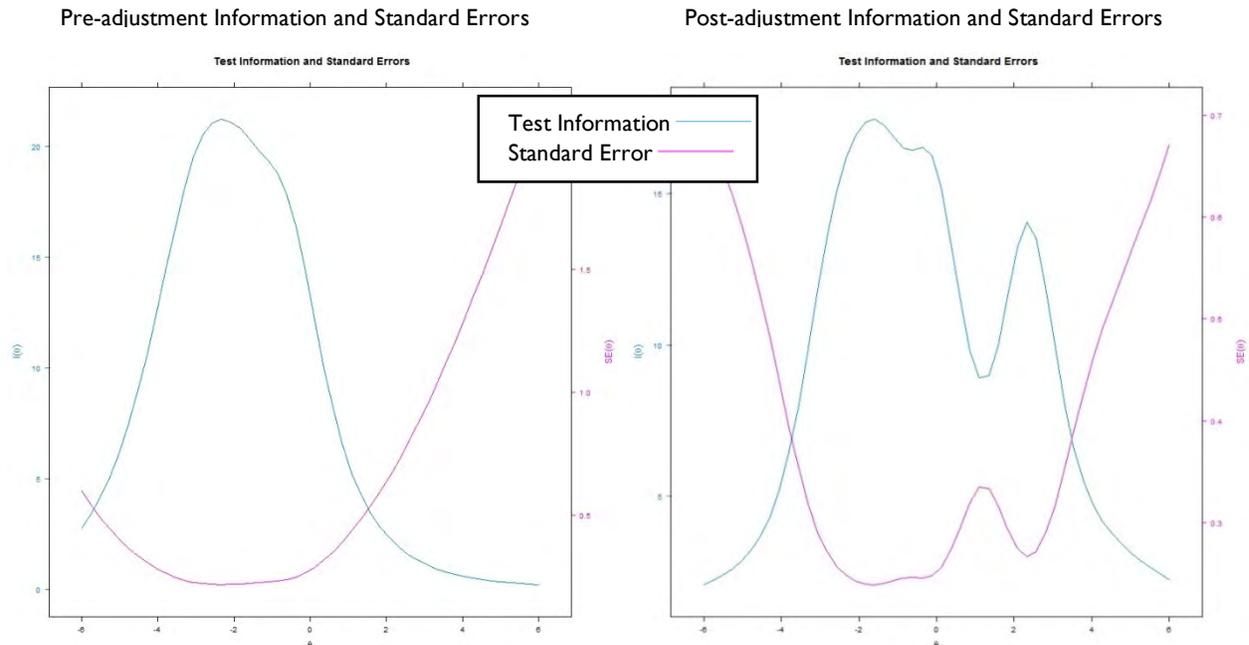


Figure 5: Test Information and Standard Errors Pre-adjustment (on left) and Post-adjustment (on right)

Conclusions for Anchoring Vignettes. The addition of anchoring vignettes to the BFI improves the BFI’s ability to measure soft skills in different cultural contexts on all fronts. **The Anchored BFI is more reliable, better at discriminating between different levels of respondent’s soft skills, and more informative than the BFI before adjustment.**

Situational Judgment Tests

Eight of the nine tested situational judgment tests supported the BFI’s self-report measurement of the Big Five Factors. The eight SJT items were reliable and had the expected correlation with counterproductive behaviors, though there was also a small but noteworthy correlation between the SJT items and life satisfaction outcomes in Rwanda, which is explained in more detail below.

Reliability and Factor Structure.

Exploratory factor analysis of the original nine SJTs was implemented to examine the effectiveness and trait representation of the items. For both categories, a one-factor solution produced a more reliable measure of the SJT total score across the nine items, though reliability increased when one of the situational judgment tests was deleted from the set (see Table 3, where CFI > 0.90 and RMSEA < 0.08 are acceptable model fit indicators). The total score of a final set of eight SJT items—which had the highest effectiveness and trait representation—was used throughout the analysis. The internal consistency reliability (measured by McDonald’s omega) of this final scale was .68.

	χ^2 (df)	CFI	RMSEA
<u>Effectiveness</u>			
1 - Factor	88.36(27)	.89	.06
3 - Factor	87.45(24)	.89	.07
1 - Factor (8 SJTs)	53.62(20)	.94	.05
<u>Trait Representation</u>			
1 - Factor	82.31(27)	.86	.06
3 - Factor	71.72(24)	.88	.06
1 - Factor (8 SJTs)	53.62(20)	.93	.05

Table 3: Results of Factor Analysis of SJT

Correlations with External Outcome Variables. In addition to taking the Anchored BFI, respondents were asked about a series of **counterproductive behaviors**, including incidence of skipping a class at school, being late for school, or being rude to colleagues. Respondents were also asked to indicate their level of **life satisfaction** using the *Satisfaction with Life Scale* (Diener, Emmons, Larsen, & Griffin, 1985).

Correlations between the SJT total score and these measures provide a deeper understanding of the situational judgment tests’ predictive validity (or test-criterion relationships, an important part of validity evidence).

When Anchored BFI self-report items are grouped according to the Big Five Factors they measure, the relationship between the factor and counterproductive behavior is in the expected direction, with the exception of extraversion, where there is no significant correlation. Some of these correlations, however, are quite small.

When the SJT total score is examined, there is a negative and significant correlation (-.17 to -.21) between soft skills as measured by the situational judgment tests and counterproductive behavior. Note that Table 4 shows that correlations do not strengthen after anchoring with anchoring vignettes; this is likely due to the fact that while BFI questions were adjusted using anchoring vignettes, outcome measures such as counterproductive behaviors were not. Still, when regression analysis was applied to the relationship between counterproductive behaviors and the situational judgment tests, adding the SJT total score to the model increased the explained variance by four percentage points.

Big Five Factor	Life Satisfaction		Counterproductive Behaviors	
	Rwanda	Philippines	Rwanda	Philippines
Conscientiousness	.00	.05	-.24	-.44
Conscientiousness adjusted	-.12	.00	-.15	-.31
Agreeableness	-.01	.06	-.31	-.41
Agreeableness adjusted	-.04	-.05	-.13	-.12
Neuroticism	-.02	.06	.13	.29
Neuroticism adjusted	-.03	.07	.01	.18
Openness	-.01	.09	-.11	-.07
Openness adjusted	-.12	-.07	-.11	-.01
Extraversion	.00	.11	.01	-.02
Extraversion adjusted	-.06	.14	.00	.03
SJT total score	-.17	.06	-.17	-.21

Table 4: Correlations between SJTs and Outcome Variables, before and after Adjustment. Statistical significance is not displayed to avoid over-emphasizing the meaning of correlations, which may not be informative even if they are statistically significant.

Correlations with life satisfaction were not substantial in either country, except for a low negative correlation between the SJT score and life satisfaction in Rwanda (see Table 4).

The addition of situational judgment tests to the Anchored BFI strengthens the tool's ability to explain the incidence of youths' soft skills. Situational judgment tests were negatively correlated with counterproductive behaviors as expected. However, unexpectedly, SJT responses and life satisfaction were negatively correlated in Rwanda. While speculations as to the cause—Rwanda as a post-conflict state or the high expectations for youth's futures in Rwanda, for example—are many, further research is necessary to replicate and understand this finding.

Follow-Up Employment and Employer Data

Follow-up surveys with unemployed youth, employed youth, and employed youth's employers revealed the validity of the Anchored BFI. While low sample sizes (below 100) for each group make strong inferences problematic, correlations between follow-up employment data and the Anchored BFI's self-report questions and situational judgment tests suggest the validity of the Anchored BFI's soft skills measures in predicting employment outcomes.

Descriptive Statistics. Means, standard deviations, and effect sizes of the scales for working and non-working youth are presented in Table 5. Working youth scored substantially higher on the SJT items and openness. They also reported lower counterproductive workplace behavior. However, working youth seemed to be less satisfied with life.

Employed Youth were asked a range of questions regarding their job satisfaction, work situations, and safety at work. Data from the 25 youth who participated in the survey revealed a positive and

significant correlation (.50) between the Anchored BFI’s measure of agreeableness and job satisfaction. Further, a negative correlation (-.36) appeared between neuroticism and job safety.

Unemployed Youth responded to a range of questions regarding whether or not they were looking for work as well as their job search habits. While 31 out of 47 unemployed youth were not looking for work, the majority of these youth were not looking for work due to being full-time students. Of youth looking for work, there was a positive correlation between the number of jobs applied for with both the total SJT score (.38) and the self-reported agreeableness score (.36).

	Mean(SD)		Effect Size
	Working	Not Working	
Life Satisfaction	3.98 (0.96)	4.36 (1.04)	-0.29
Counterproductive Workplace Behavior	1.57 (0.59)	1.85 (0.96)	-0.33
SJT total score	78.52 (8.42)	72.52 (10.63)	0.60
Conscientiousness	4.49 (0.45)	4.52 (0.56)	-0.06
Conscientiousness adjusted	4.86 (0.91)	4.81 (1.23)	0.04
Agreeableness	4.27 (0.43)	4.09 (0.47)	0.38
Agreeableness adjusted	4.81 (1.04)	4.60 (1.21)	0.18
Neuroticism	2.33 (0.76)	2.27 (0.63)	0.08
Neuroticism adjusted	3.07 (0.88)	3.05 (1.17)	0.02
Openness	4.04 (0.57)	3.91 (0.51)	0.24
Openness adjusted	4.15 (1.48)	3.69 (1.45)	0.31
Extraversion	3.56 (0.57)	3.63 (0.45)	-0.15
Extraversion adjusted	3.97 (1.06)	3.80 (1.00)	0.16

Table 5: The Big Five Factors in Working and Non-Working Youth

Employers’ responses provide a key source of data that is likely less subject to social desirability bias or faking than data from youth may be when youth self-report on employment and soft skills. Thus, employer data is particularly important to establishing the predictive validity of the Anchored BFI. Indeed, data collected from employers revealed positive and significant relationships between youth’s soft skills and job performance:

- There was a positive and significant correlation (.39) between youth’s self-reported agreeableness and employer-reported teamwork on the job.
- There were positive and significant correlations between employer reporting on productive workplace habits with youth’s self-reported agreeableness (.38) and with SJT items (.48).
- There was a positive and significant correlation (.39) between SJT items and employer-reported overall performance.



Figure 6: Data Collected from Employers Reveal Positive and Significant Relationships Between Youth's Soft Skills and Job Performance

Findings from this employer survey may be the most meaningful of the follow-up data findings in that—while avoiding the potential biases inherent in youth surveys—they suggest the validity of the Anchored BFI and situational judgment tests to predicting positive work outcomes and behaviors.

Portraits of Filipino and Rwandan Youth

With the assurance that the Anchored BFI is a reliable measure of youth's soft skills in both Rwanda and in the Philippines, an inquiry into the levels of different soft skills of youth from each context as a whole is possible. To examine youth's perceptions of their soft skills by country, the distribution and skewness² of each of the Big Five Factors—conscientiousness, agreeableness, neuroticism, openness, and extraversion—were examined for each country. Comparisons of Rwandan and Filipino youth were made against a normal distribution for that factor; thus, if a factor for Rwandan youth skews to the right relative to the normal distribution, Rwandan youth would be said to rate themselves more highly for that skill. However, while findings in this section are informative, the small sample sizes and selection of a specific group of youth in each context means that these samples cannot be considered representative of Rwandan or Filipino youth. Thus, these findings should be treated with caution as representative only of the youth in each sample.

The Philippines. Filipino youth, according to their results on the Anchored BFI, have a normal distribution for **extraversion, openness, neuroticism, and conscientiousness**, meaning that across the sample, different levels of these factors are represented. In only one case, **agreeableness**, do Filipino youth rate themselves as higher relative to the normal distribution.

Rwanda. Rwandan youth's responses to the Anchored BFI produced a normal distribution for **extraversion** only. Distributions for **agreeableness, openness, and conscientiousness** are skewed to the right (see Figure 6), suggesting that Rwandan youths describe themselves as more agreeable, more open and more conscientious, on average, than youth in contexts where there is a

² Since adjusting the BFI with AVs leads to re-scaling each question from a 5-point scale to a 7-point scale, it spreads out the distribution of responses for each of the Big Five Factors. However, the adjustment from a 5-point to a 7-point scale has not had much effect on the skewness of the distribution for each factor.

normal distribution. Finally, youth in Rwanda describe themselves as less neurotic, with a distribution for neuroticism skewing left.

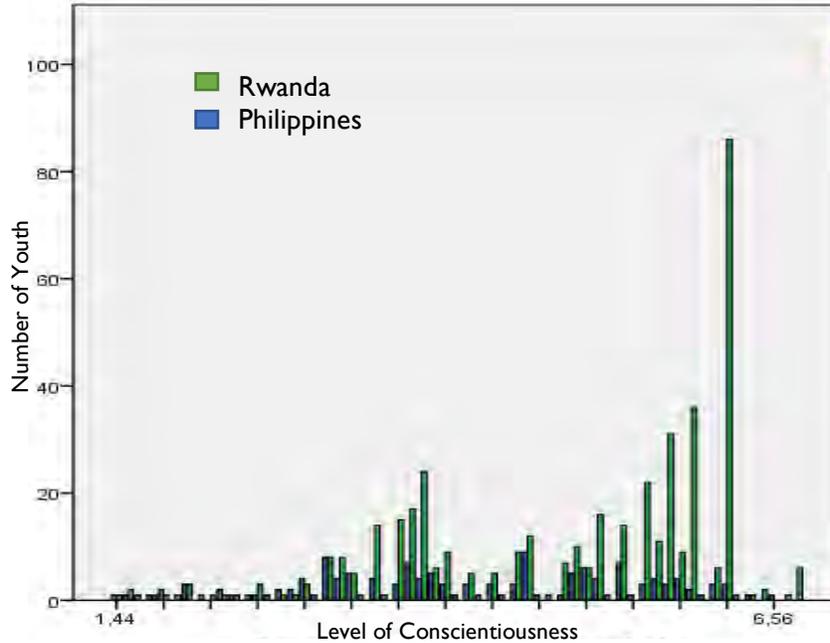


Figure 7: Skewness of Conscientiousness Total Score after Adjustment

CONCLUSIONS

Measuring youth’s soft skills is an intricate process that requires close attention to how those soft skills are expressed in each context as well as the risk of cultural bias. This necessary contextual precision coupled with the inviolability of psychometrically-tested assessments of soft skills has been challenging the international youth workforce development field. **The findings of this study are consistent with recent research conducted by organizations such as the OECD and, in tandem with our findings, this research appears to present a series of breakthroughs for the field. This particular study meets the challenge of finding a reliable, unbiased cross-cultural measurement tool for soft skills by adding the appropriate anchoring vignettes and situational judgment tests.**

While the small sample size and two-country sample limit the conclusions that can be drawn from this study, the findings are promising in showing that adjusting the BFI with anchoring vignettes improves the BFI’s measurement of soft skills in two contexts, the Philippines and Rwanda, on several fronts:

- Anchoring Vignettes improve the BFI’s reliability so that it is as reliable in these two contexts as it is in the United States.
- Anchoring Vignettes improve the fit of the Big Five model.
- Anchoring Vignettes improve the BFI’s ability to discriminate, allowing for more precise measures of subtle differences in respondent’s soft skills.
- Anchoring Vignettes allow for a more reliable assessment of a broader range of individuals.
- Anchoring Vignettes reduce the measurement differences between the countries.

Further, situational judgment tests allow for a reliable way to engage youth in declaring their own perceptions of their soft skills with less room for faking than traditional self-reports. The addition of these questions strengthens the ability of the Anchored BFI to measure youth's soft skills without relying further on self-report items. Data on employment from youth and employers further suggests the validity of the Anchored BFI and situational judgment tests.

This two-country study suggests that youth workforce development projects may, with the use of the Anchored BFI coupled with situational judgment tests, reliably measure soft skills from project to project and culture to culture. While continued research in additional contexts is necessary, the Anchored BFI's potential for wide-scale implementation offers the youth workforce development field the chance to measure and understand soft skills both more broadly and more deeply.

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APPENDIX: THE ANCHORED BFI



Country:		
Date of Test		
		2016
Day	Month	
School name:		



**Professional
Examination Service**
Credentialing Insight

In this survey you will find questions about:

- About you
- Your family and home
- Hypothetical situations and how you would react to them
- Statements about how you view other people
- How you are in general

Please read each question carefully and answer as accurately as you can. For most questions, put a check in the corresponding box. Some questions will require you to write in your answer.

PAPER INSTRUCTIONS: If you make a mistake when checking a box, cross out your error and check the correct box. If you make an error when writing an answer, simply cross it out and write the correct answer next to it.

In this questionnaire, there are no 'right' or 'wrong' answers. Your answers should be the ones that are 'right' for you. Every person is different, so everyone's answers will be different.

This survey is not a test and you will not be graded or judged. If you do not want to participate, you do not have to take this survey. Once you begin, if you do not want to continue the survey you do not have to. You can stop at any time. If you choose not to take this survey, this will not affect your participation in the project. If the questions are not clear, let one of the administrators know and we'll be glad to explain them until they are clear.

Your answers will be combined with others to make totals and averages in which no individual can be identified. All your answers will be kept confidential.

Do you agree to participate in this survey? Yes No

SECTION A: ABOUT YOU

A1 Today's date: Day: _____ Month: _____ Year: _____

A2 What's your name and student ID (if you have it) ; if you don't have your student ID, enter 0)?

Last Name _____

First Name _____

Student ID _____

A3 What's your age? _____

A4 Are you female or male? Female Male

A5 What District are you from? _____

A6 Are you currently a student in secondary school, TVET or university?

(If no, skip to Section B)

Yes

No

SECTION B: ABOUT YOUR FAMILY AND HOME

B1 Which of the following are in your home? (Tick all that apply)

- A radio
- A bicycle
- Running Water

B2 What is the total number of rooms in your house? Note: Count all the rooms including living, dining, bed, bath, stock, kitchen, etc.

SECTION C.1: SITUATIONS YOU MAY FIND YOURSELF IN

In this section, you will find a number of paragraphs describing various situations. You will be asked what you would do in this situation. Please read each paragraph carefully before choosing your response. Don't spend too long deciding on each answer. Please answer all of the statements even if you're not entirely sure of your answer. There are no right or wrong answers.

SCENARIO 1:

You are given an assignment in one of your classes in which you have to give a speech to your fellow students in class. You have written down the entire speech and you feel like it does not need any additional editing. The speech is in two days and your teacher suggests that you practice the speech at least twice before giving it.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
1.A. Practice the speech once. You are confident in what you have written and in your ability to present to the class. Once should be enough.	O	O	O	O	O
1.B. Practice the speech twice. Your teacher is very experienced and knows how to succeed.	O	O	O	O	O
1.C. Practice the speech three times. Although your teacher is very knowledgeable, she may be overconfident in your ability to give a good speech.	O	O	O	O	O
1.D. Practice the speech more than three times. More practice is almost always better.	O	O	O	O	O
1.E. Do not practice the speech. Practicing will lead you to be too nervous.	O	O	O	O	O

SCENARIO 2:

You work at a clothing store and are at the register summing up a total for a customer who is buying a dress and a pair of pants. The customer is acting suspiciously and you suspect that she may be trying to steal something. You think that she might have placed a small item inside the pocket of the pants. She has placed the pants on the table for you to check the price.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
2.A. Shout “thief!” as loudly as possible to embarrass the customer. You do not want the store to get a reputation that it is easy to steal from.	○	○	○	○	○
2.B. Directly ask the customer if she has put something in the pocket of the pants.	○	○	○	○	○
2.C. Feel the insides of the pants pockets as you check them out. If you find something, politely ask the customer if she wants to also buy this item.	○	○	○	○	○
2.D. Feel the insides of the pants pockets as you check them out. If you find something, immediately call the police.	○	○	○	○	○
2.E. Pretend that nothing is happening and check the customer out as usual. It is probably not worth the hassle to make sure that items are not stolen from the store.	○	○	○	○	○

SCENARIO 3:

You are keeping track of the finances for the motorcycle store where you work. This means that you have to look at how much money the store has taken in through sales and subtract how much money the store has spent for normal operations. You tried calculating three times, and keep getting different answers.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
3.A. Stop trying and tell your manager the calculation that you feel most confident in.	○	○	○	○	○
3.B. Stop trying and ask your manager to help you.	○	○	○	○	○
3.C. Try 1 more time and ask your manager for help if you cannot figure it out.	○	○	○	○	○
3.D. Tell your manager that you cannot figure it out and that someone else should do the task.	○	○	○	○	○
3.E. Try 3 or 4 more times and ask your manager for help if you still cannot figure it out.	○	○	○	○	○

THE ANCHORED BFI: A SOFT SKILLS MEASUREMENT TOOL

SECTION D: HOW YOU RATE OTHER PEOPLE

Instructions: In this section, some people are described to you. After you read each description, indicate how much you agree or disagree with a statement about that person by selecting the rating.

How much do you agree with this statement?	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
D.1. Tony tends to be somewhat careless. Other workers comment also that he is lazy. Tony often also appears disorganized. Based on this information, to what extent do you agree with the statement “Tony is conscientious/ hard-working”?	0	0	0	0	0
D.2. Peter is a reliable worker and does all work with great efficiency. But he is easily distracted. Based on this information, to what extent do you agree with the statement “Peter is conscientious/hard-working”?	0	0	0	0	0
D.3. Alice always does a thorough job. She perseveres until all tasks are finished. Alice also makes plans and follows through with them. Based on this information, to what extent do you agree with the statement “Alice is conscientious/hard-working”?	0	0	0	0	0
D.4. Jean tends to disagree with others, and as a result often starts quarrels. Indeed, many people consider Jean quite rude. Based on this information, to what extent do you agree with the statement “Jean is an agreeable person”?	0	0	0	0	0
D.5. Even though Nicole is helpful and unselfish with others, some people find her cold and unfriendly. This does not matter so much, as she has a forgiving nature. Based on this information, to what extent do you agree with the statement “Nicole is an agreeable person”?	0	0	0	0	0

THE ANCHORED BFI: A SOFT SKILLS MEASUREMENT TOOL

How much do you agree with this statement?	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
D.6. Claude is considerate and kind to almost everyone. He is very trusting, and finds it easy to cooperate with others. Based on this information, to what extent do you agree with the statement “Claude is an agreeable person”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D.7. Carine frequently appears quite depressed to other people. She gets nervous easily. Based on this information, to what extent do you agree with the statement “Carine is emotionally stable”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D.8. Although in tense situations Paul remains calm, he can be quite moody. And he tends to worry quite a lot. Based on this information, to what extent do you agree with the statement “Paul is emotionally stable”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D.9. Aline always appears relaxed and to handle stress well. Indeed, she never comes across as upset. Aline remains calm in all situations. Based on this information, to what extent do you agree with the statement “Aline is emotionally stable”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D.10. Emmanuel has few artistic interests, and is not especially sophisticated either in music or literature. This has led some people to observe that Emmanuel does not appear especially curious about anything. Based on this information, to what extent do you agree with the statement “Emmanuel is open-minded”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
D.11. Emma has an active imagination. This has led some people to calling her a deep thinker. Even so Emma prefers work that is routine. Based on this information, to what extent do you agree with the statement “Emma is open-minded”?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

THE ANCHORED BFI: A SOFT SKILLS MEASUREMENT TOOL

How much do you agree with this statement?	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
D.12. Jean Bosco is original and always coming up with new ideas. This has led some people to calling him inventive. But beyond this, Jean Bosco values artistic, aesthetic experiences. Based on this information, to what extent do you agree with the statement “Jean Bosco is open-minded”?	○	○	○	○	○
D.13. Claudine is very reserved. She tends to be quiet no matter what the circumstance. Indeed, people find her shy and inhibited. Based on this information, to what extent do you agree with the statement “Claudine is extraverted”?	○	○	○	○	○
D.14. Emile is often talkative and generates a lot of enthusiasm in others. But on his day, Emile can be rather shy and inhibited. Based on this information, to what extent do you agree with the statement “Emile is extraverted”?	○	○	○	○	○
D.15. Rosette has an assertive personality, and as a result appears outgoing and sociable. Indeed, people are always commenting on how full of energy Rosette is. Based on this information, to what extent do you agree with the statement “Rosette is extraverted”?	○	○	○	○	○

SECTION C.2: SITUATIONS YOU MIGHT FIND YOURSELF IN

In this section, you will find again a number of paragraphs describing various situations. You will be asked what you would do in this situation. Please read each scenario carefully before choosing your response. Don't spend too long deciding on each answer. Please answer all of the statements even if you're not entirely sure of your answer. There are no right or wrong answers.

SCENARIO 4:

You are working at a hotel when guests ask you for directions to a local restaurant. You are not exactly sure of the exact location or the address of the restaurant, but you have a general idea of which direction it is in. You know that the restaurant is within walking distance. You have a lot of work you have to accomplish before going home for the evening.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
4.A. Point them in the general direction of the restaurant as quickly as possible so you can complete the rest of your work.	○	○	○	○	○
4.B. Politely suggest that they ask someone else so you can get back to work.	○	○	○	○	○
4.C. Find the address and also find a map so you can show the guests exactly where to go.	○	○	○	○	○
4.D. Find a map and give it to them. Tell them this is the best you can do and get back to your normal work.	○	○	○	○	○
4.E. Pretend not to be able to understand them so you can continue with your normal work.	○	○	○	○	○

SCENARIO 5:

You are working in a restaurant as a waiter. One of your customers starts to complain that his food is taking too long to come out. The restaurant is very busy, one of the cooks is out sick, and the other cooks are overwhelmed with work. It is not your fault that the food is taking a long time to come out of the kitchen. Still, the customer persists in complaining and says to you, “You are the worst waiter I have ever had! Why would anyone hire you?” You have never had a customer be so rude to you before.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
5.A. Repeatedly apologize to the customer and try to explain that the cooks have a lot of work to do today and ask your supervisor if there is anything else you can do to please the customer.	○	○	○	○	○
5.B. Tell the customer that he is being very rude and that this is not your fault.	○	○	○	○	○
5.C. Tell your manager that the customer is being rude and that you are going to quit your job if she does not do anything.	○	○	○	○	○
5.D. Apologize to the customer and do your best to keep from crying.	○	○	○	○	○
5.E. Try to pretend that you do not hear the customer’s complaining and go on doing your job.	○	○	○	○	○

SECTION E.1: HOW ARE YOU IN GENERAL

Here are a number of characteristics that may or may not apply to you. For each statement, please indicate the extent to which **you agree or disagree with that statement** in regard to how well it describes you.

BFI#	I am someone who ...	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
1	Is talkative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	Tends to find fault with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	Does a thorough job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	Is depressed, blue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5	Is original, comes up with new ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6	Is reserved	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	Is helpful and unselfish with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	Can be somewhat careless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	Is relaxed, handles stress well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	Is curious about many different things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	Is full of energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12	Starts quarrels with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13	Is a reliable worker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14	Can be tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15	Is ingenious, a deep thinker	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16	Generates a lot of enthusiasm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17	Has a forgiving nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18	Tends to be disorganized	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19	Worries a lot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20	Has an active imagination	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

THE ANCHORED BFI: A SOFT SKILLS MEASUREMENT TOOL

BFI#	I am someone who ...	Disagree Strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
21	Tends to be quiet	0	0	0	0	0
22	Is generally trusting	0	0	0	0	0
23	Tends to be lazy	0	0	0	0	0
24	Is emotionally stable, not easily upset	0	0	0	0	0
25	Is inventive	0	0	0	0	0
26	Has an assertive personality	0	0	0	0	0
27	Can be cold and aloof	0	0	0	0	0
28	Perseveres until the task is finished	0	0	0	0	0
29	Can be moody	0	0	0	0	0
30	Values artistic, aesthetic experiences	0	0	0	0	0
31	Is sometimes shy, inhibited	0	0	0	0	0
32	Is considerate and kind to almost everyone	0	0	0	0	0
33	Does things efficiently	0	0	0	0	0
34	Remains calm in tense situations	0	0	0	0	0
35	Prefers work that is routine	0	0	0	0	0
36	Is outgoing, sociable	0	0	0	0	0
37	Is sometimes rude to others	0	0	0	0	0
38	Makes plans and follows through with them	0	0	0	0	0
39	Gets nervous easily	0	0	0	0	0
40	Likes to reflect, play with ideas	0	0	0	0	0
41	Has few artistic interests	0	0	0	0	0
42	Likes to cooperate with others	0	0	0	0	0
43	Is easily distracted	0	0	0	0	0
44	Is sophisticated in art, music, or literature	0	0	0	0	0

SECTION C.3: SITUATIONS YOU MIGHT FIND YOURSELF IN

In this section, you will find a number of paragraphs describing various situations. You will be asked what you would do in this situation. Please read each scenario carefully before choosing your response. Don't spend too long deciding on each answer. Please answer all of the statements even if you're not entirely sure of your answer. There are no right or wrong answers.

SCENARIO 6:

You are working in a store that sells food and basic household goods. You are currently working on stocking the shelves in the vegetable aisle. Your manager wants you to fill up the corn, sweet potato, carrot, and onion shelves but he says that today all that is required to be completed is the corn shelf. You will get off of work in 15 minutes and it takes about 20 minutes to stock one shelf. You cannot earn overtime pay at your job.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
6.A. Complete as much of the corn shelf as you can and leave when you are supposed to get off work.	○	○	○	○	○
6.B. Stay at work an extra 5 minutes and complete the entire corn shelf.	○	○	○	○	○
6.C. Stay at work an extra 25 minutes and complete both the corn and sweet potato shelves so that you can get more work done tomorrow.	○	○	○	○	○
6.D. Ask a coworker to help you with the corn shelf so you can finish it before you get off work.	○	○	○	○	○
6.E. Remind your manager that you get off work in 15 minutes and that it is not possible to complete the corn shelf.	○	○	○	○	○

SCENARIO 7:

You are counting money and recording the days' profits for the business in which you work. It is very important that you are accurate. After you have counted about half of the money, a coworker reminds you that an important football match that you have been wanting to watch is about to begin. There is a television in the office in which you are working.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
7.A. Carefully count the money and record the profits. You can turn the match on when you are done and watch the second half.	○	○	○	○	○
7.B. Since you have counted about half of the money, double your current number and record that number. Turn on the television and watch the match.	○	○	○	○	○
7.C. Turn the television on and watch the match while you are working.	○	○	○	○	○
7.D. Stop counting the money and turn on the television so you can watch the match. Return to counting the money after the match is over.	○	○	○	○	○
7.E. Continue to count the money and record the profits. Tell your coworker to keep you updated on the score.	○	○	○	○	○

SCENARIO 8:

You work in a store selling motorbikes. You work partly on commission, meaning that you get paid extra money for every motorbike you sell. Today, you have been talking to a father and his two sons for several minutes about one of the most expensive motorbikes in the store. They seem interested but when you ask them if they would like to purchase the motorbike, the father immediately says “no”. Still, they stay at the store and continue to look at motorbikes.

What are you likely to do?	<u>Very unlikely to do this</u>	<u>Somewhat unlikely to do this</u>	<u>May or may not do this</u>	<u>Somewhat likely to do this</u>	<u>Very likely to do this</u>
8.A. Thank the family for their time and go talk to other customers.	○	○	○	○	○
8.B. Continue to walk around the store with the family and talk to them about the other motorbikes. Ask them if they would like to purchase one of the less expensive motorbikes.	○	○	○	○	○
8.C. Help the family by telling them there is a less expensive motorbike store across town they may want to look at.	○	○	○	○	○
8.D. Leave the family alone but tell them to come to you with any questions they may have.	○	○	○	○	○
8.E. Go find your manager and ask her if there is any way you can sell the motorbike for less.	○	○	○	○	○

This is the end of the survey.

Thank you for participating! This will help us make improvements to better serve youth’s needs in the future. Please let us know if you have any questions.