The ETS Work Readiness Strength Assessment and Training System (WRSATS)

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March 11, 2016

Abstract

This report describes the design, development, and preliminary piloting of the ETS Work Readiness Strength Assessment and Training System (WRSATS). The WRSATS is targeted to community colleges and programs in career pathways, workforce and workplace training, and adult secondary education (ASE). The system consists of three components: (a) the Work Readiness Strength Assessment (WRSA) measuring 13 personality facets and six competencies (initiative and perseverance, responsibility, flexibility and resilience, teamwork and citizenship, customer service orientation, and problem solving and ingenuity), (b) the individualized Work Readiness Strength Profile (WRSP), which provides feedback to individuals on facets and competencies, and (c) the Work Readiness Training System (WRTS), a set of eight learning modules, one for each competency, and an introduction and conclusion, all of which are based on best practices in adult and workforce education programming. This report describes these components, summarizes preliminary pilot studies addressing their usability and feasibility, and discusses future research.

Overview

Over the past decade, there has been a growing appreciation for the importance of noncognitive skills in the workplace (also known as soft skills, 21st century skills, applied skills, behavioral skills, and social-emotional skills). Numerous studies have documented the nature of these skills and generally include factors such as professionalism/work ethic, communication, teamwork/collaboration, adaptability/flexibility, and leadership (Finegold & Notabartolo, 2010; National Research Council, 2012; Society for Human Resource Management, 2008). There is evidence that noncognitive skills change throughout the lifespan (Ardelt, 2000; Blonigen, Hicks, Krueger, Patrick, & Iacono, 2006; Roberts, Walton, & Viechtbauer, 2006) and that interventions can improve them (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Heckman & Kautz, 2014). Numerous training programs have been designed to develop soft skills for the workplace; these have been found to yield medium to large effect sizes for organizational training (Arthur, Bennett, Edens, & Bell, 2003). Illustrations can be found in teamwork (Ellis, Bell, Ployhart, Hollenbeck, & Ilgen, 2005) and self-management training (Stewart, Carson, & Cardy, 1996).

The ETS Work Readiness Strength Assessment and Training System (WRSATS) is a system designed to assess noncognitive skills and to provide individualized feedback and training. It is intended to be used by those looking to enhance their understanding of these skills. The WRSATS is made up of three components:

1. The Work Readiness Strength Assessment (WRSA), measuring 13 facets and 6 competencies

2. The Work Readiness Strength Profile (WRSP), a report providing individualized feedback

3. Work Readiness Training System (WRTS), a set of training exercises

The primary target environments for WRSATS include community colleges, career pathways programs, workforce and workplace training programs (including those for out-of-school youth aged 16–24), and adult secondary education (ASE) programs.

This report describes the motivation for this system, the evidence base from which the three components of the system were developed, and current and planned research on the system.

Motivation: 21st Century Workforce Needs

The skills gap, the gap between what job seekers offer and what employers want, is reflected in surveys in which over a third of employers report difficulty filling jobs (Bessen, 2014) and is seen as a growing problem (e.g., America's Edge, 2011). Although there are many possible reasons for the perceived skills gap, one may be that there is a mismatch between the applied, noncognitive skills employers consider to be very important—such as professionalism/work ethic, leadership, and teamwork/collaboration—and employers' perceptions of entrants' level of preparedness on those skills (Casner-Lotto & Barrington, 2006). There is also a large body of research and several meta-analyses showing a correlation (small to medium effect size) between measures of noncognitive skills and success in the workforce (e.g., Barrick & Mount, 1991; Lindqvist & Vestman, 2011; Salgado & Tauriz, 2014).

There have been numerous efforts to develop a taxonomy of workplace noncognitive skills over the years, from the U.S. Department of Labor's (1991) Secretary's Commission on Achieving Necessary Skills (SCANS) report to more recent efforts such as the taxonomy of the Assessment and Teaching of 21st Century Skills (Binkley et al., 2012). The National Research Council (2012) synthesized many of these taxonomies and also identified linkages between 21st century skills and personality factors based on the five factor model of personality. A study was conducted of 737 adults who completed seven of the most influential personality inventories available over a period of 5 years (Drasgow et al., 2012). The study employed factor analysis to identify 22 personality factors (referred to as *facets*) within the five factor model as follows:

- Conscientiousness: *achievement*,[1] *order*, *self-control*, *responsibility*, nondelinquency, virtue

- Openness: *intellectual efficiency*, *ingenuity*, *curiosity*, aesthetics, tolerance, depth

- Extraversion: *dominance*, activity, *sociability*, attention seeking

- Agreeableness: *cooperation*, *consideration*, selflessness

- Emotional stability: *optimism*, adjustment, *even-temperedness*

Drasgow et al.'s (2012) factor analysis is consistent with content analyses that show similarities of the facets across various personality instruments (e.g., John & Srivastava, 1999) and consistent with studies that show that narrow traits are a useful level of description in that they have power above and beyond the broad Big Five traits in predicting job performance (e.g., Dudley, Orvis, Lebiecki, & Cortina, 2006).

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[1] Terms in italics are facets that have been identified by ETS as the ones most critical to workforce success.

Work Readiness Strength Assessment (WRSA)

Based on a review of these facets and discussions with employers, ETS identified a subset of 13 of

the 22 facets as the ones most critical to workforce success. An adaptive, forced-choice

assessment was developed to measure these 13 facets (Naemi, Seybert, Robbins, & Kyllonen,

2014). The WRSA requires respondents to select a statement (of two presented) that is "most like

you" and then computes 13 facet scores based on the pattern of selections. It takes 35 to 45

minutes to complete and consists of 104 pairs of statements. A sample item is shown in Figure 1.

WRSA Sample Question

Read each statement carefully and choose the one statement that is MORE LIKE YOU:

○ Once I start working on a project, I don't stop until I am finished.

○ I speak up when it's important.

Figure 1. A sample item from the Work Readiness Strength Assessment (WRSA).

Work Readiness Strength Profile (WRSP)

In discussions with potential users of the assessment and training system, we learned that 13

facets is excessive for reporting, and users expressed a desire to have feedback on fewer

competencies. The competencies and facets that comprise them are as follows:

- Initiative and perseverance (diligence + assertiveness + dependability)

- Responsibility (organization + self-discipline + dependability)

- Flexibility and resilience (stability + optimism)

- Teamwork and citizenship (collaboration + generosity)

- Customer service orientation (friendliness + collaboration + generosity)

- Problem solving and ingenuity (creativity + intellectual orientation + inquisitiveness)
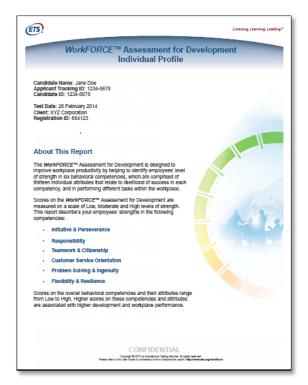
Descriptions of these competencies, and facets, and further description of the assessment can be found in Naemi et al. (2014).
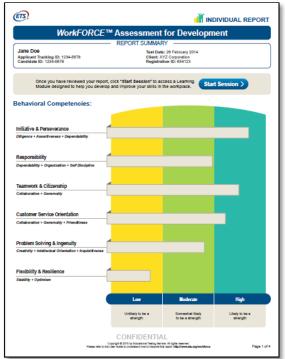
The five-page WRSP provides the test taker's measured strength level for each of the six behavioral competencies and each of the 13 facets. These scores are categorized as low (lower one third), moderate (middle one third), or high (highest one third) based on relative standing with respect to a norm group reflecting 16 to 65 year old U.S. workers.
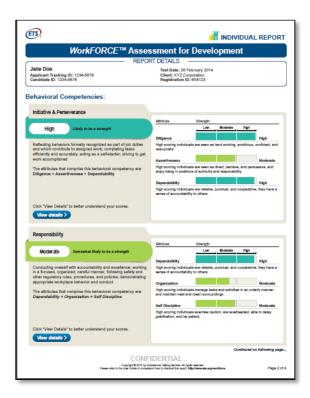
The first page of the WRSP briefly describes the purpose of the WRSA and the meaning of the scores. The second page provides a score for each WRSA behavioral competency, along with a list of the two to three facets that comprise the behavioral competency. The following three pages list each of the WRSA behavioral competencies, their definitions, and the scores and definitions of their corresponding attributes (facets). Figure 2 shows an example of the WRSP.

The WRSP also provides links to interpretive statements for each behavioral competency and facet. These are intended to provide additional detail and support for understanding each of these areas and suggest actions individuals can take to address each behavioral competency and facet. The interpretive statements were developed based on research relevant to each key behavioral competency and facet area. Figure 3 shows an example of an interpretive statement.

Finally, a score interpretation guide is provided for further support in score interpretation. The guide offers instructors or individuals information on how the test was designed, how it works, and how to interpret strength profiles.
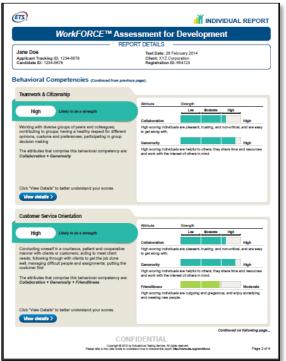
Figure 2. Four (of five) pages from a work readiness strength profile.

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Teamwork and Citizenship (Low)

Do you prefer to work independently rather than as part of a team? Do you feel your contributions are not valued in a group setting? Do you focus on your own work at the expense of helping out your colleagues?

Teamwork is an important work readiness skill; in fact, in a recent survey, teamwork was listed as one of the top three critical skills for the workplace. While having the drive to work independently is also an important skill, employers look for workers who cooperate with others, who contribute to group decisions, and who resolve conflict respectfully. Working collaboratively can lead to increased creativity and innovation. It can also boost your productivity.

Below are tips to further develop your teamwork and citizenship skills. You can use these tips at work, at school, in your community, and in your personal life. They will help you strengthen your skills in this area, which can make you a more valuable employee.

- Employers value employees who can collaborate and come to group decisions.
    - Participate in team projects by sharing your ideas, knowledge, and experience.
    - Be reliable and dependable when a team is counting on your work.
    - Do not be afraid to voice your opinion.
- Employers value employees who are generous with their resources.
    - Offer to train or mentor new employees.
    - Share your skills, knowledge, and time with colleagues when appropriate.
- Employers value employees who are respectful of others.
    - Make an effort to learn about your colleagues' customs, values, and cultures.
    - Practice strategies to effectively resolve disagreement and conflict.
    - Offer feedback in a constructive manner.
- Employers value employees who engage in active listening.
    - Indicate that you are listening closely by maintaining eye contact and asking questions.

Figure 3. A sample Work Readiness Strength Profile (WRSP) interpretive statement.

Work Readiness Training System (WRTS)

Designed to promote the development of the skills reported on in the WRSP, the WRTS consists

of eight learning modules; one for each of the six behavioral competencies, plus an introduction

and a conclusion. The WRTS is tailored to the unique issues associated with adult learners

(Knowles, Holton, & Swanson, 2015), reflecting such learners' being "more self-directing, having

a repertoire of experiences, and being internally motivated to learn subject matter that can be

applied immediately" (Merriam & Caffarella, 1999, p. 272). The training system is informed by

six factors or issues associated with *andragogy* (adult pedagogy): the adult learner's (a) need to

understand the significance and relevance of the material; (b) self-concept as a self-directed

learner; (c) prior experience, which serves as a frame of reference for any new material; (d)

readiness to learn concepts that they can apply in the present; (e) desire to learn things that

will help in a tangible way, such as in their personal or professional lives, and (f) extrinsic

motivation, such as a promotion or higher salary, and intrinsic motivation, such as self-esteem

(Knowles et al., 2015). The adult learning framework reflected in the WRSATS is also consistent

with lessons learned from the personality development literature (Hennecke, Bleidorn,

Denissen, & Wood, 2014), specifically, that adults must have a desire to change their behaviors,

consider these behavioral changes to be feasible, and that the changes themselves must

become habitual enough to be stable and trait-like.

Drawing from best practices in adult and workforce education programming (Eyster et al.,

2011), each module begins with a set of concrete objectives, followed by a warm-up activity in

which learners discuss why each particular behavioral competency is important in a workplace

and what ramifications a weakness in the competency might have at work. Throughout each

module, opportunities are provided for learners, either individually or in groups, to consider how they would apply new learning to their current jobs, personal lives, or in school. In addition, through the use of scenarios, role plays, and mock job interviews, learners are given the opportunity to broaden their skills by applying new knowledge to real world examples. Scenarios and role plays address problems such as dealing with difficult people, adapting to a new situation, handling criticism, and adhering to workplace policies. Each module concludes with a goal setting activity, in which learners first reflect on their own strengths and areas for improvement and are then encouraged to set goals for further development of each behavioral competency. For each goal, the learners indicate what steps they plan to take to meet the goal, a date to check on their progress, and an individual who can offer feedback on their progress.

Each of the six modules comprises five stages:

1. *Warm up* involves knowledge activation and building, drawing from learner background knowledge, enabling personalization and goal setting, and providing the essential concepts, language, and skills to be practiced in the module.

2. *Presentation* provides new materials and concepts, include engaging articles and interactive media, such as listening to audio news reports.

3. *Practice* builds skills by focusing on concepts acquired in the presentation stage; activities move from group work to more individualized practice activities.

4. *Evaluation* provides exercises in an authentic workforce setting; including peer evaluation, self-evaluation, and the opportunity for learners to demonstrate what they have learned.

5. *Application* entails reflection, in which goals are revisited and learning is self-evaluated, allowing learners to apply what they have learned to their own professional goals.

Activities in the modules are designed to be used flexibly. Instructors can choose specific activities for incorporation to fit into class time. The program exists as a curriculum in PDF form. Several consolidated modules, built in PowerPoint, with accompanying handouts, were also created. Content in all modules is meant to cut across job areas, although the content can be customized to apply to particular job areas through goal setting, personal application, and reflective activities.

Training of instructors consists of an introductory meeting or webinar, and two 2-hour workshops. During the first workshop, instructors are introduced to the research, the program design and development, and its features. Trainers then conduct a mock lesson with the instructors. Instructors are given one consolidated module with which to create a lesson plan and asked to choose another behavioral competency for which they will be given another module. During the second workshop, they share their lesson plans and conduct role plays demonstrating how they would teach the module. The training is supported by additional resources, including a guide for instructional integration and instructor training videos.

Future Research

Usability and feasibility studies are underway and being planned to determine how instructors use the work readiness system components and how learners react to the assessment, score reports, and training materials. The first usability study involved administering training to one community college and two workforce-readiness adult-education settings (two trainers, 10 students per trainer at each site, 75 students total). Learner reactions were positive and improvement suggestions (e.g., to reduce reading load) were implemented (Shore & Lentini,

2014). A second study involving 17 instructors and almost 300 students (140 adult education, 45 out-of-school youth, 106 community college) is currently underway. Studies will inform further system development and enable partnerships from the field for further efficacy trials.

A larger study is being planned to evaluate the effects of the WRSATS on individual workforce readiness skill levels, for demographic subgroups (e.g., gender, race). The study will explore the effects of specific WRTS modules and modalities (classroom vs. self-guided; in class vs. online) and program types (e.g., traditional community college vs. vocational programs).

Summary

The purpose of this report was to describe a newly developed system, the WRSATS. The system is designed to promote an essential element of the process of becoming work ready—awareness and knowledge of workforce readiness skills. The report outlined the foundation, program elements (e.g., assessment, training, feedback mechanisms), and some of the planned research. The goal of the WRSATS is to improve understanding of the career readiness needs of adult learners and to provide adults seeking to improve their career prospects with supportive information and tools.

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