White Paper January 2015

Conover Credential™

Workplace Readiness

The Need for Soft Skills Assessment and Skill Intervention

Soft skills refer to a group of personal qualities that make a good student or employee, personal qualities such as a positive attitude, communication, planning and organizing, critical thinking, interpersonal skills and more.

For the past century, the cry from employers in this country has been to include soft skills assessment and training when preparing students for college and career readiness. This cry has only increased in the last decade.

Employers want people who possess soft skills in their workforce, and they are finding that even young college graduates do not possess these critical skills.

In 2013, a study by American Express and Gen Y Research firm Millennial Branding found that managers have an overall negative view of young workers. They point to a general lack of communication and interpersonal skills, teamwork, professionalism and time management to name a few**.**

Research conducted by Harvard University, the Carnegie Foundation and Stanford Research Center has all concluded that 85% of job success comes from having well-developed soft and people skills, and only 15% of job success comes from technical skills and knowledge (hard skills). These statistics were extrapolated from *A Study of Engineering Education,* authored by Charles Riborg Mann and published in 1918 by the Carnegie Foundation. The cited figures come from the data on pages 106-107. The report is out of print, but can be located through a public library or university library.

A 2012 survey conducted by North Carolina Business Service Representatives, representing the Workforce Development Boards of North Carolina, surveyed 1,152 employers. They found that soft skills, such as communication and interpersonal skills, represent a primary gap in workplace soft skills. Critical and analytical thinking and problem solving were also frequently indicated as lacking. Businesses indicated that improved soft skills/personal effectiveness training would be of the most value in the future, with occupational skills training (hard skills) coming behind. Most employers surveyed stated that a standardized work readiness certification credential would be a very useful tool to demonstrate workers' aptitude and employability skills.

Additional Soft Skills Research

- American Society of Training and Development (ASTD, now called Association for Talent Development, ATD) in 2012 conducted a survey by Emergenetics International and found that communication deficiencies were the most cited organizational challenge with 59% of respondents stating that communication was a challenge for workplace teams.

- A poll conducted in 2008 by the Society for Human Resource Management (SHRM) in conjunction with WSJ.com/careers stated that soft skills have become more important for experienced workers than for new hires, especially for skills such as critical thinking, problem solving, leadership, flexibility and teamwork.
- In another study by ASTD, the State of the Industry Report (Green and McGill, 2011), U.S. employers spent $171.5 billion on employee learning and development in 2010, and 27.6% of those training dollars went to soft skills training.

The Connection Between Emotional Intelligence and Soft Skills

In Daniel Goleman's 1995 book, *Emotional Intelligence*, and in his follow-up book in 1998, *Working with Emotional Intelligence,* he lays out a clear case for how our emotions can help to build us up or to tear us down. Goleman states in *Working with Emotional Intelligence* that there is a new yardstick for success in the workplace. In the first chapter, *The New Yardstick: The Rules for Work Are Changing*, Goleman states that we are being judged by not just how smart we are, or by our training and experience, but also by how well we handle ourselves and each other.

In Goleman's *Emotional Competence Framework*, he identifies five key emotional intelligence competencies, broken into two categories: Personal Competence and Social Competence.

Personal Competence
- Self Awareness (Interpersonal Awareness)
- Self-Regulation (Self-Control)
- Motivation (Drive Strength/Motivation/Commitment Ethic)

Social Competence
- Empathy (Empathy)
- Social Skills (Communication, Interpersonal Skills, Teamwork, Sales Orientation/Leadership)

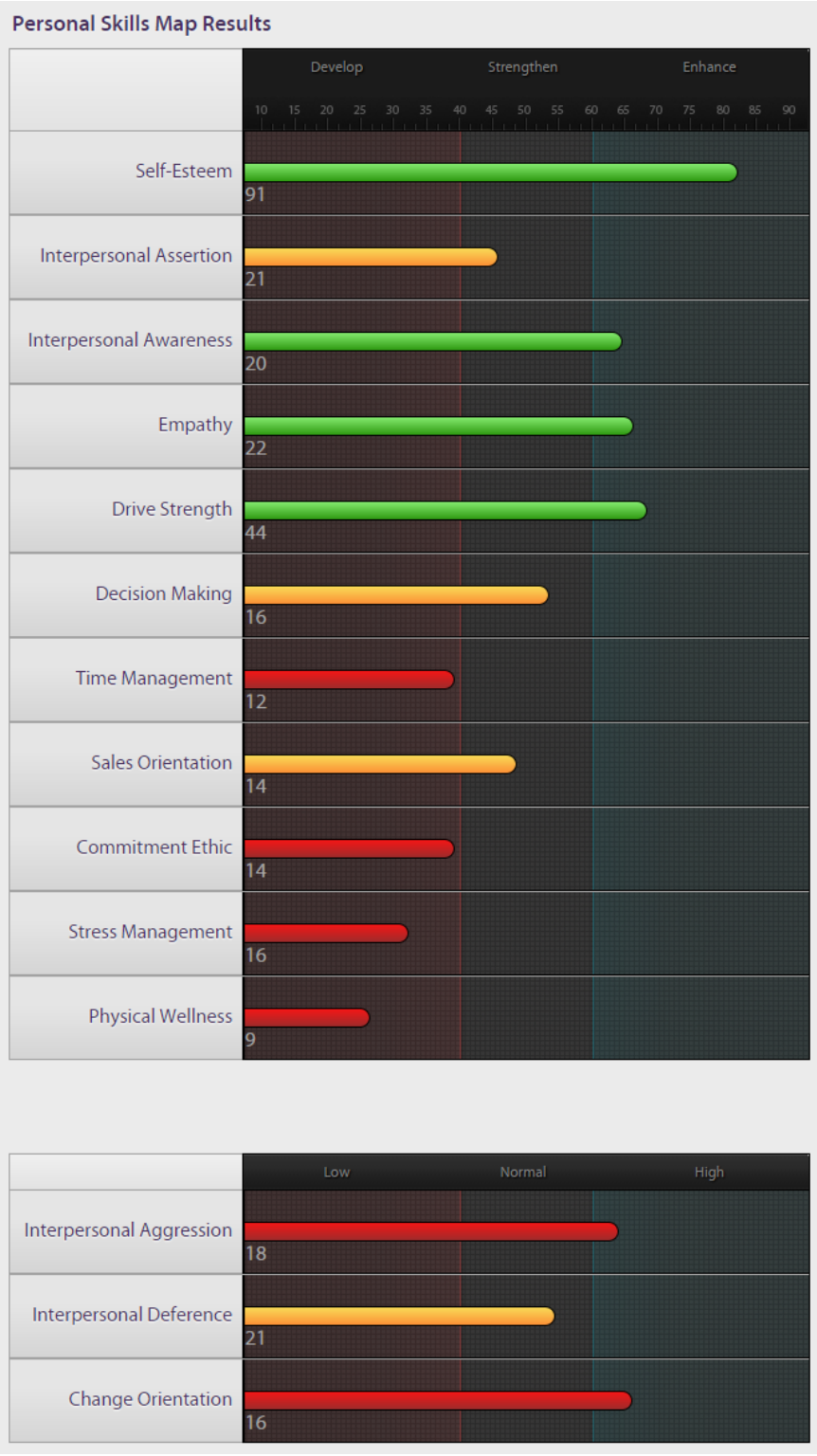
These five key competences form the basis for all soft skills and are all competencies in our emotional intelligence programs.

The cornerstone of social competence is empathy. Empathy covers how to sense, understand and accept another person's thoughts, feelings and behaviors. Empathy is a primary characteristic of a skilled communicator. Persons with strong empathy tend to be sociable and outgoing. Good communication skills are one of the building blocks for social skills.

The work of Daniel Goleman, along with Dr. Darwin Nelson and Dr. Gary Low at the Emotional Intelligence Training and Research Institute (EITRI) has brought to light the importance of emotional intelligence for personal and workplace success.

Nelson and Low are the authors of our emotional intelligence assessments, the *Personal Skills Map®*, the core assessment in our *Success Profiler®* program and our *Personal Responsibility Map™*, the main assessment in our *Personal Responsibility—Achieving Academic and Career Goal™s* program. The *Personal Skills Map* and the *Personal Responsibility Map,* along with our skill intervention systems, form a unique emotional intelligence base upon which soft skills can be developed.

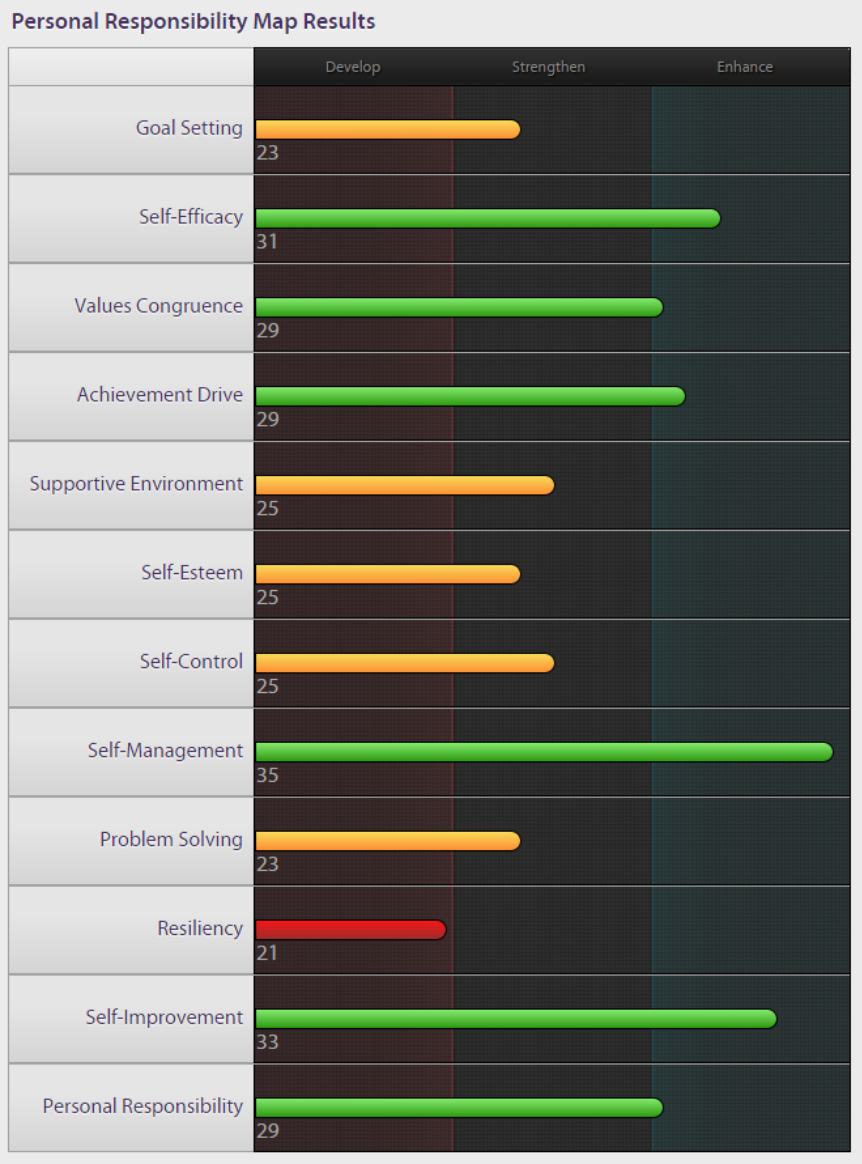
Personal Skills Map®



People with high levels of emotional intelligence use their emotions to help motivate themselves (Drive Strength/Motivation), to understand themselves and others (Interpersonal Awareness) and to help them commit and follow through on a project (Commitment). People with emotional intelligence also tend to be effective leaders (Sales Orientation/Leadership), are able to adapt to change and learn new skills (Change Orientation) and are able to work as members of a team.

Negative communication (Aggressive and/or Deferring) styles often result in problems at work and life. Learning interpersonal skills creates more successful outcomes for people and organizations.

Personal Responsibility Map™



The *Personal Responsibility Map* can be broken into two major performance areas, the first being goal achievement potential (scales 1-6) and the second is self-management related to personal responsibility (scales 7-10). The reason for these two performance areas is that in order to take personal responsibility one must first know how to set and achieve goals. Once goal setting and achieving skills are developed, self-management skills related to personal responsibility help an individual achieve these stated goals.

In summary, the link between emotional intelligence and soft skills is too strong to ignore. The foundation of all soft skills training must include some emotional intelligence skills training. When you dissect our *Workplace Readiness Credential (WRC),* you can easily find foundational emotional intelligence competencies embedded in each skill area.

Correlation of Conover's Emotional Intelligence Competencies to *Workplace Readiness Credential*

Soft Skill-*WRC*	Emotional Intelligence Competency
Attitude	Self-Esteem, Interpersonal Awareness, Empathy, Self-Management, Self-Improvement
Communication	Interpersonal Awareness, Empathy, Self-Esteem, Sales Orientation/Leadership, Assertion
Planning and Organizing	Self-Management, Goal Setting, Self-Efficacy, Drive Strength/Motivation, Achievement Drive, Time Management, Decision Making, Commitment
Critical Thinking	Problem Solving, Decision Making
Interpersonal/Social Skills	Self-Esteem, Interpersonal Awareness, Empathy, Supportive Environment, Assertion
Teamwork	Interpersonal Awareness, Interpersonal Assertion, Empathy, Sales Orientation/Leadership, Supportive Environment, Assertion
Professionalism	Self-Esteem, Interpersonal Awareness, Self-Management, Self-Improvement
Media Rules	Decision Making, Time Management

Why the Disconnect?

While research has for many years demonstrated the undeniable link between academic success and emotional intelligence, it is still not understood in our schools, both public and private. For example, the connection between academic improvement and social/emotional intelligence was studied for four years in 207 studies on over 200,000 subjects by the Collaborative for Academic, Social and Emotional Learning (CASEL). The results showed that those students who received social/emotional training scored 11% higher than the control group on a measure known as "improvement index." This term, taken from federal education researchers, refers to the difference between the mean percentile rank for the intervention group and that of the control group. (*Social-Skills Programs Found to Yield Gains in Academic Subjects, Education Week, Eye on Research, Debra Viadero)*

The impact here is almost twice that of studies on class size improvements.
Roger P. Weissberg, CASEL, 2007

Only recently have our schools begun to address social/emotional learning in our middle and high schools. Unfortunately it is in the context of behavioral intervention, and not academic improvement. If emotional intelligence is not understood and taught in our schools, then soft skills will also suffer.

Workplace Readiness Credential™

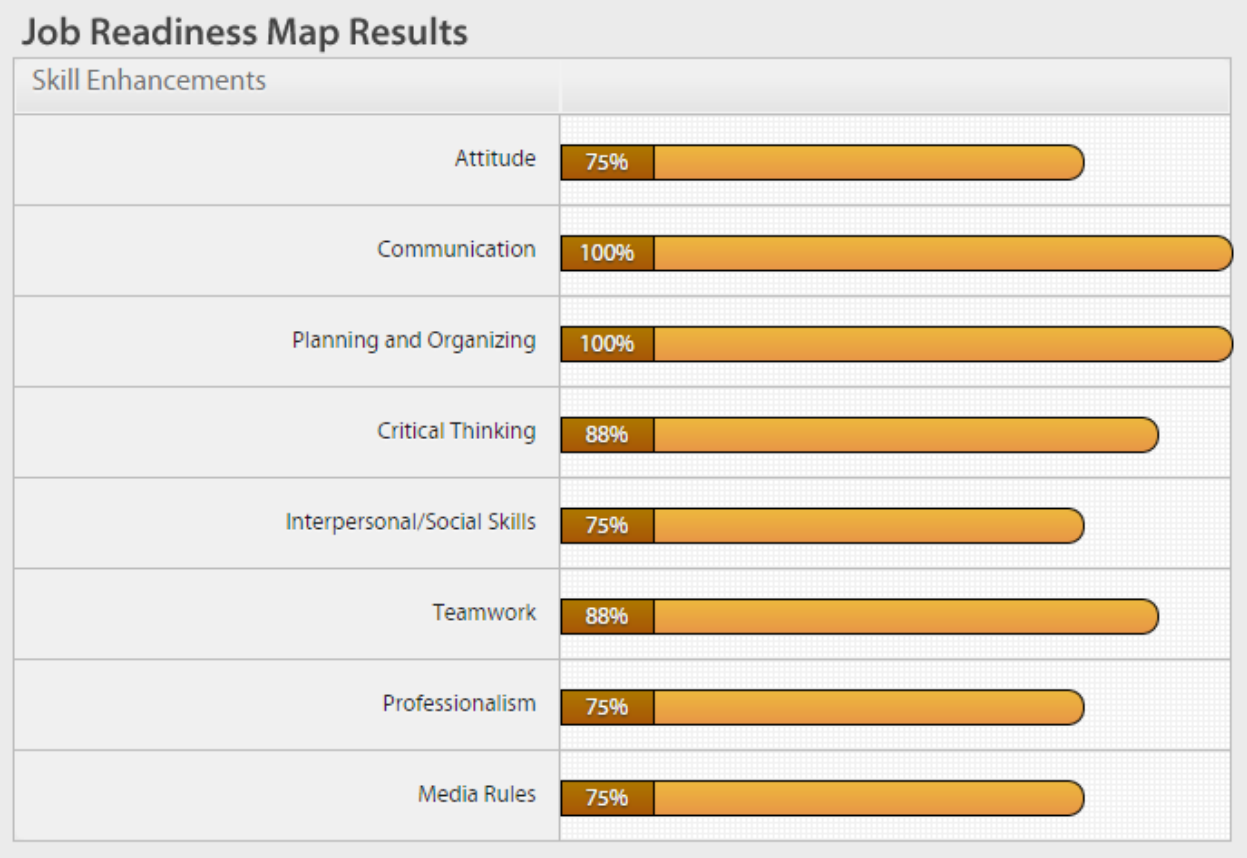
To help address the need for an evidence-based assessment and skill intervention system for soft skills, we at The Conover Company have released three soft skills programs that are all a part of our *Workplace Readiness Credential, Job Readiness Series, Job Seeking Series and Job Keeping Series.* Four decades of focused research into soft skills and emotional intelligence are constructed into these programs. This strong research foundation is why we emphasize continuing research with individuals and organizations.

Job Readiness Series™

The first set of programs in our *Workplace Readiness Credential* is the *Job Readiness Series.* This program currently exists in both online and instructor-led course formats. The *Workplace Readiness Credential* consists of an assessment system linked to a skill intervention system. All three series use the same format.

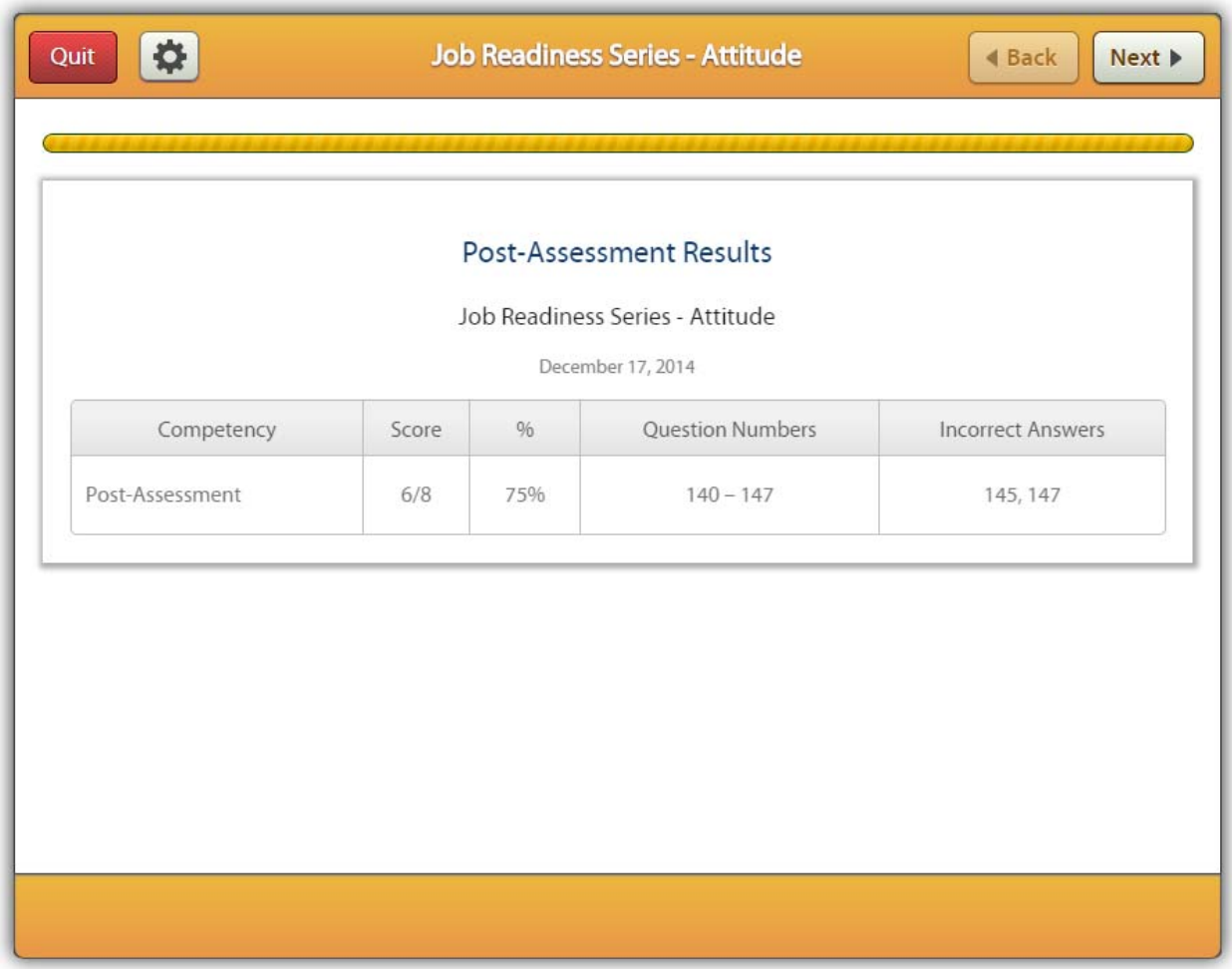
Pre-Assessment

There are several types of assessments in the *Job Readiness Series.* The first is the *Job Readiness Map™.* This assessment is a pre-assessment and is used to place participants in the *Job Readiness* programs. The *Job Readiness Map* consists of a short version (64 items) and a long version (128 items). The Map is a knowledge-based assessment covering the following soft skills areas:



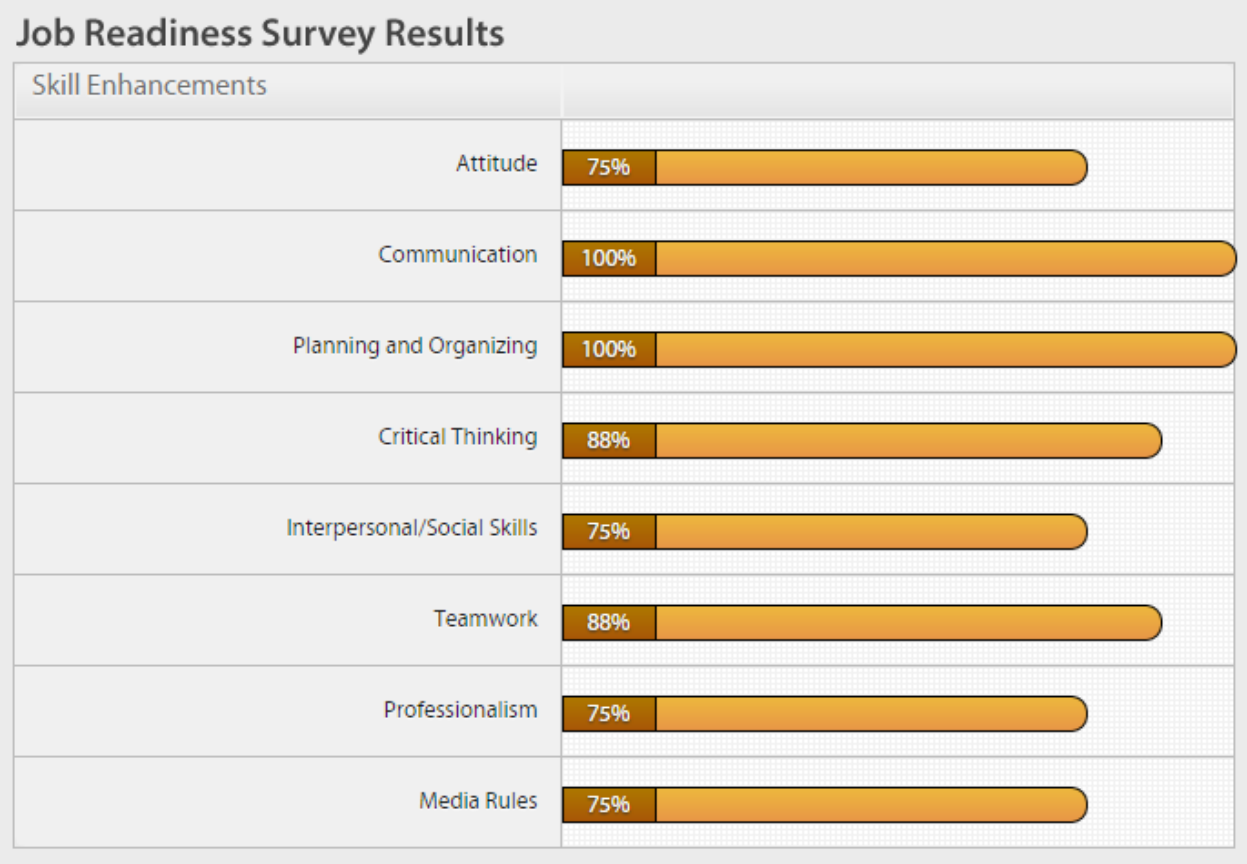
Post-Assessment

A second type of assessment is found at the end of each skill intervention program, and is used to post-assess for skill acquisition.



Job Readiness Survey™

The third type of assessment is the *Job Readiness Survey.* There are two forms of the *Job Readiness Survey,* a long and a short version. Both surveys are 360 degree assessments to help verify soft skills acquisition and competence. The surveys are designed to be taken by someone who knows the participant, such as a supervisor, co-worker, teacher, counselor or customer. The long version consists of 48 questions covering the following soft skills areas:



The purpose of the surveys is to verify the participant's present set of soft skills. They can also be used in site research to verify the effectiveness of the program.

The short version of the *Job Readiness Survey* is only eight questions. Like the long version, it covers the above eight soft skill areas. Both surveys focus on behaviors rather than knowledge of the soft skill.

Sample Question

Attitude

How one thinks or feels about someone or something. Includes characteristics such as possessing a positive attitude, keeping your focus, doing your best, responding to guidance or direction, managing emotions and being flexible.

	Never						Always
Demonstrates proper behaviors related to attitude; has a good attitude	1	2	3	4	5	6	7

The Conover Company is committed to working in partnership with employers to build the best job readiness program anywhere with a sound research, evaluation and continuing improvement process.

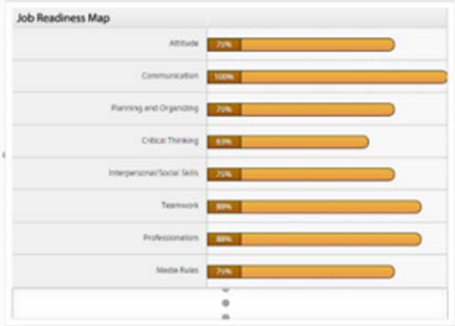
Skill Intervention System

There are eight programs in the *Job Readiness Credential.* Each program takes approximately one to two hours to complete. Participants normally will work only on the skill intervention units in which they scored below a 70th percentile on the *Job Readiness Map.*

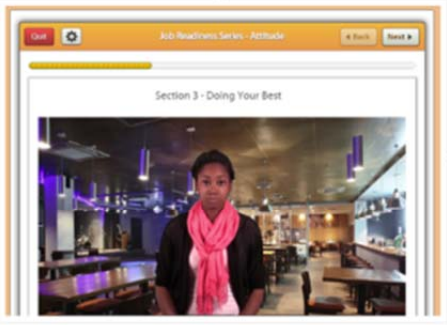
- **Attitude** is where it all begins. This program addresses the importance of having a positive attitude, keeping your focus, doing your best, responding to guidance or direction, controlling your emotions and being flexible.
- **Communication** is something we often take for granted. This program covers listening skills, verbal communication, non-verbal communication, emotional awareness, written communication, and communicating in difficult situations.
- **Planning and Organizing** leads to success if given the proper amount of time and effort. This program covers prioritizing, time management, coordinating resources, delegating, creating systems, and being proactive by planning ahead.
- **Critical Thinking** is an essential skill that all employers agree is critical for success in any workplace. This program covers gathering information, analyzing information, applying information forming a hypothesis, problem solving and decision making.
- **Interpersonal/Social Skills** teaches users how to interact with other people and present themselves in an acceptable manner by covering interpersonal skills, managing your emotions, socializing at work, networking, responding to conflict and helping customers.
- **Teamwork** is not just about sports, it is about succeeding in the workplace. Topics include respecting others, active listening, being reliable, participating, communicating constructively and solving problems.
- **Professionalism** teaches employees the high standards of professionalism and how to live up to those standards. It includes following workplace rules and expectations, personal responsibility, workplace ethics, physical appearance, appropriate language and minding your manners.
- **Media Rules** teaches the new, seldom-taught guidelines on how to properly and safely use technology. The rules covered include cell phone rules, email rules, laptop and table rules, internet use, internet safety, video conferencing rules and social media.

How it Works

The system begins with a comprehensive pre-assessment of workplace readiness (*Job Readiness Map*™, *Job Seeking Map*™, and *Job Keeping Map*™)



Results are then scored and stored. *Conover Online*™ then assigns follow-up activities based upon scores below the 70th percentile…



…and then delivers all assigned activities. Includes over 750 30-60 second videos that run on all computers and mobile devices such as a cell phone, iPad® or Chromebook™.

Upon completion of each skill intervention activity a post assessment is administered to document skill acquisition. If the pre- and post-assessment scores are 70% or above, the skill area will be added to the credential.

Meanwhile a comprehensive post-assessment report of all user data is stored in the system, making program accountability a reality for all users in the system.

Upon successful completion, a Conover Credential™ in Job Readiness, Job Seeking, and/or Job Keeping is printed. Participants have the option to retake skill intervention units to obtain a better score.

Relevance of a *Conover Credential*

The *Conover Credential* for Workplace Readiness is a document that can be used to verify successful completion of our *Job Readiness Series.* It is a meaningful credential of soft skills acquisition to potential employers and post-secondary training programs.

The *Conover Credential* is issued by the program administrator of the organization administering our *Conover Credential.* The name of the program administrator, organization, participant's name, and the date and the competencies passed with scores will all appear on the Credential. This credential is recognized by the National Soft Skills Association (NSSA).

NSSA is a national association focused solely on soft skills research and dissemination of the best practices within the field of soft skills assessment and training.

The *Conover Credential* for Workplace Readiness is recognized by NSSA and their seal of approval is on each *Conover Credential.*

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Conover Research Project

Job Readiness Map, Survey, Workforce Readiness Credential

Executive Summary for Conover Company

Guiding Vision. To conduct a comprehensive and systematic research project to evaluate and establish essential reliability and validity data for the assessment instruments and program effectiveness of the Job Readiness Program and Workforce Readiness Credential.

History and Rationale. The Conover Company has a successful history of providing assessment tools and training solutions for organizations. Evidence-based products and cloud-based assessment solutions deliver high quality job readiness training programs to prepare and improve the needed soft skills, workplace behaviors, ethics, and attitudes that are essential for life and career success.

Conover products and programs are grounded in long-term research and emphasize the soft skills most needed to secure employment and experience success in the workplace for trainees entering the workforce. In line with our commitment to develop and provide high quality training programs, it is essential to engage in a continuous process of research, program evaluation, and refinement based on research.

For over 30 years, Conover Company has been at the forefront of developing and delivering technology based assessment and learning solutions to education and business. We recognize the essential need that clients expect and depend upon practical and research derived training programs to improve job and workforce readiness. To this end, we are developing a collaborative evaluation project to achieve best practice results based on research.

Project Process and Procedures. The Emotional Intelligence Training & Research Institute (EITRI) and Conover Company will work collaboratively to design and implement a program evaluation model to establish and document reliability and validity of the Job Readiness Map and Workforce Readiness Program. Focused research will be conducted with the assessment instruments used in the program and to evaluate the effectiveness of the job readiness training program and Workplace Credential.

We will combine our respective skills, expertise, and experience to collect, analyze, and document data relevant to validity and program effectiveness. Construct and predictive validity are a first and foremost concern. Reliability coefficients (internal consistency and stability) will be determined along with the validity studies.

Throughout the process, practical applications are a prime consideration. Organizations and employers using the program will be included in the evaluation study to assure relevance and continuous improvement. Participant and employer evaluations of the job readiness skills, knowledge, and workplace behaviors will be collected and studied as one measure of program effectiveness. We will work collaboratively in each phase of the project and refine the process based on experience and needs.

Our strategy includes working with you and team step by step so that you can collect data as a natural process of delivering the program. Overall, we cannot do a good job unless we can assure the quality of measurement is as sound as possible and that there is adequate follow-up assessment to speak to program effectiveness. We think that what is needed is a program evaluation guide for users and future clients rather than a focused statistical manual.

Project Timeline. We estimate a timeframe for the project to be approximately one year. The research process and program evaluation processes are continuous. This is an important project, and we want to dialogue with you at each step along the way. We view this project as a commitment to quality, and quality requires time to achieve the results desired to reflect the quality of your program.

Collaboration and Dialogue: We enjoy collaboration and value a team effort in guiding each step and phase in the process. We need to communicate regularly to make sure that the project stays on track with benchmarks and deliverables. A face-to-face meeting or two may be helpful and necessary. One could be in conjunction with the 2017 Fourteenth Annual Institute for Emotional Intelligence in Corpus Christi next April.

We already have a beginning point involving data collection and statistical analysis thanks to our discussions and information shared thus far. The reliability and validity of the Job Readiness Map and Job Readiness Survey are a first step.

The program evaluation design will be structured in phases with benchmarks, deliverables, and review process. A suggestion is to have the first review in April at the conference if you and Donna Rice are able to attend and participate meaningfully as previously discussed.

Deliverables. Completion of initial validity and reliability studies for the assessment instruments would be phase one. Employer evaluations and 360 assessments of program participants' job readiness skills would be phase two. Phase three would be the development of a Program Effectiveness Guide detailing and highlighting the research, program evaluation procedures, findings, and why soft skills are so needed to meet workforce requirements and employer expectations.

The guide would be written for use by organizations and employers using and/or considering program implementation. The guide will highlight key research studies conducted, results, evaluation procedures, and illustrate program effectiveness findings. We plan to further strengthen and enhance the case for soft skills assessment and training/learning solutions essential to job readiness and career success. We will blend research data within the program effectiveness guide and provide a path forward for ongoing program refinement.

Draft Research Prospectus

The Workplace Readiness System for Developing Soft Skills and Achieving Job Success

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Emotional Intelligence Training and Research Institute (EITRI)

The Workplace Readiness System for Developing Soft Skills and Achieving Job Success

Problem Statement

The Conover Company develops and delivers skills training programs based in part on the education and transformative model of emotional intelligence (Nelson & Low, 1977-present). The Personal Responsibility Map ([PRM], Nelson & Low, 2004), a positive assessment of emotional intelligence (EI) skills, was developed specifically for the Conover Company and was developed in part to serve as a companion assessment with the Personal Skills Map ([PSM] Nelson & Low, 1977) that preceded it. The PSM demonstrated significant relationships between 10 EI skills and high school grade point average (Rice, 2006). To extend the learning potential demonstrated by the soft-skills curriculum investigated by Rice, the Conover Company developed a new online assessment and training system to bridge the gap between secondary school academic success and success in the job market. The new online curriculum, the Workplace Readiness System (WRS), is now successfully being used by organizations. What is needed now is a focused effort to validate the system empirically for effectiveness in its intended use of helping people obtain, retain, and achieve meaningful success in the job market.

The WRS is a cloud-based training platform that consists of a pre- and posttest assessment process, as well as an online curriculum for learning about and developing workplace readiness skills related to eight workplace readiness competencies. The workplace readiness competencies targeted by the WRS are (a) attitude, (b) communication, (c) planning and organizing, (d) critical thinking, (e) interpersonal soft skills, (f) teamwork, (g) professionalism, and (h) media rules. The WRS uses two versions of the Job Readiness Map (JRM) to assess the client's skill level in each competency and as a training needs assessment for suggesting specific competencies for development. The JRM long version consists of 128 multiple-choice items (16

items per scale) and the JRM short version consists of 64 multiple-choice items (8 items per scale). The user is taken through the cloud-based curriculum to develop knowledge and skill related to selected competencies, and awarded a certificate upon successfully completing the module for that competency. In this fashion, participants can build a soft skills portfolio to present to potential employers by completing the training for all eight competencies. Finally, there is also a Job Readiness Survey (JRS) that employers can fill out on individual employees to grade them on each of the eight workforce readiness competencies. The JRS consists of 48 Likert response items for the eight scales (six items per scale). The response options for the JRS are that the skills are demonstrated "Most of the time" (2 points), "Some of the time" (1 point), or "Least of the time" (0 points).

Significance

Employee success skills in the 21st Century may have more to do with soft skills than we think. Reading, writing, arithmetic, and critical thinking will always be important for employment success and promotion, which is why these disciplines are the focus of primary and secondary education standards worldwide. Research, however, suggests that soft skills provide the foundation for success, happiness, and fulfillment through all levels of work and life (Cox, 2013; Cox & Nelson, 2008; Hammett, 2013; Hammett, Hollon, & Maggard, 2012; Rude, 2013), and what may be missing from education at large is an overt curriculum to develop that foundation (Hammett, 2007). Rice's 2006 study notwithstanding, the majority of the research on the development of soft skills has been conducted using participant students in post-secondary settings. This research, therefore, will be significant in filling a gap in the literature on developing soft skills for people who are between the secondary and post-secondary education levels. In addition, the results of this study could confirm the WRS as a practical educational

approach for developing a soft-skills foundation to help that target population prepare for, obtain, retain, and achieve meaningful success in the job market. Positive social change is achieved when more people are gainfully employed and enjoy their work.

Annotated Bibliography (Brief Literature Review)

The following brief review of the literature is offered as a starting place to ground the research prospectus and research proposal that will follow.

Broadus, Rivas, Treffinger, and Gasiorowicz (2016) found that the use of soft skills among disease intervention specialists (DIS) played an important role the DIS's ability to work effectively with patients and the community. The researchers also noted the need for numbers-based job performance evaluations that included the DIS's utilization of soft skills in the performance of the job. The assessment of job performance and employer satisfaction of WRS graduates will be an important consideration for understanding the WRS's overall effectiveness.

Cox (2013) validated the Relationship Skills Map ([RSM], Nelson and Nelson), which is a positive assessment of emotional intelligence skills for maintaining healthy dyadic relationships. The RSM was significantly related to other measures of healthy and effective being including the NEO PI-R, the Constructive Thinking Inventory (CTI), and the Dyadic Adjustment Scale (DAS). Healthy being should be an important consideration for job and workplace effectiveness and happiness.

Cox and Nelson (2008) demonstrated the significant relationships between the scales assessed by the Emotional Skills Assessment Process (ESAP) and the Constructive Thinking Inventory (CTI). The WRS was developed based in part on Nelson and Low's educational EI theory and PRM, and the PRM was based in part on Nelson and Low's positive assessments of EI that preceded it. If the ESAP is significantly related to constructive thinking, it is highly

likely that the PRM, PSM, and elements of the WRS are also significantly related to constructive thinking.

In a 15-year follow up to the mediation course developed for law students, Einesman (2015) found that the practical applications of soft skills taught to law students was more influential in their lives and professional practices than was the cognitive knowledge of the mediation process that was being taught in the class. As a result, Einesman changed the way the mediation course is taught, emphasizing the discrete soft skills used over the mediation process itself.

Fan, Wei, and Shang (2016) conducted a study to determine the influence of soft skills on wage gaps between Black (Afro-American) and White (Caucasian) workers. The researchers found that the wage gap in white-collar jobs was smaller for hard-skills jobs when compared to soft-skills jobs. They also found that the gap effect results in a discrimination against Blacks that varies across occupations and that the discrimination induces Blacks to self-select more frequently than Whites for hard-skills jobs. Perhaps curricula to help people prepare for careers and develop soft skills could mitigate wage gap discrimination and encourage Blacks to self-select more frequently for soft-skills jobs.

Complementing the findings of Einesman (2015), Gautam (2016) found that while teaching soft skills in the higher education classroom is needed and helpful, it is also important to give students the opportunity to practice and use those skills through experiential processes. Another connection was found by Love (2014) in a study of business students of the need for additional training in interpersonal and intrapersonal skills to develop leader behavior and team cohesion skills.

In their work with U.S. Air Force officers, Hammett, Hollon, and Maggard (2012) reported the significant relationships between 11 EI skills measured by the ESAP and leadership quality as measured by class standing of students who completed the 5-week residence course on leadership development. Hammett (2013) found significant relationships between personal excellence (one measure of emotional intelligence and integrated skills) and many aspects of career success and satisfaction among professional clergy leaders. Emotional intelligence was not significantly related, however, to level of education or level of income.

Jacob's (2016) findings also support the conclusions drawn by Einesman (2015) and Gautam (2016). According to Jacob, teaching soft skills is an effective way to facilitate the teaching and learning of any hard skill or discipline. In short, the lessons people learn about soft skills tend to stick with them better than the lessons passed in other subjects.

Rice (2006) found that several soft skill areas were related to high school achievement in JROTC students. Participation in service learning, holding leadership positions, and leader/planner learning styles were found to be significantly related to GPA. In addition, 10 of the 11 scales assessed by the PSM were also related to achievement as measured by GPA.

Rude (2013) conducted a phenomenological study of top-level government leaders who had received official recognition and awards for their service as federal service leaders. The themes that were emerged through open-ended interviews reflected the EI skills and behaviors measured by the Personal Excellence Map (Nelson, Low, & Hammett, 2007). Seth (2016) emphasized the need for a blending of soft skills with hard skills to achieve success in workplace environments. Implications from these studies indicate the need for soft skills training to enhance the effectiveness of the traditional curriculum of schools and colleges.

Stewart (2016) integrated economic and business theory to argue for the need to refine the definition of human capital to incorporate skills and competencies, and replace the more popular definition of human capital based solely on educational attainment. Tevdovska (2015) documented the importance of soft skills in the acquisition of English as a foreign language (EFL) for non-English speakers. Studies by Farnia (2012) and Chao (2003) found similar results with students in EFL and language acquisition programs. The research also argues for the need and suggests benefits of including soft skills in undergraduate classrooms for all disciplines.

Finally in their research with veterinary students, Walker, Roberts, and Mehlhorn (2015) found that students prized the ability to work in a group as important, but not as important as having good management skills. Students also recognized the importance of other soft skills including communication and conflict resolution.

Research Methodology and Design

The research design for this study will be a simultaneous mixed-methods design that incorporates both correlation and difference testing from the quantitative tradition, and grounded theory from the qualitative tradition. For content validity, quantitative methods are needed to clarify and demonstrate significant relationships through correlations between WRS scales and any other content variables that will be collected. In addition, where it may be possible to compare WRS participants to non-WRS participants, causal-comparative methods will be utilized. Conversely, it is difficult to capture the lived experiences of individuals without using qualitative research methods, and a grounded theory study will be useful for exploring and understanding the WRS through the eyes of both students and the employers who hire them. In addition to the themes that emerge from the study participants, a goal of the research is to

articulate a theory of skills-based education that can be applied across multiple settings. Thus, a grounded theory approach is appropriate for the qualitative portion of the study.

Frameworks for the Study

Theoretical Framework

The theoretical framework for this study will be the transformative approach to emotional intelligence espoused by Nelson and Low over four decades of focused research (1977-present). The transformative emotional intelligence (TEI) approach is an appropriate theoretical framework for two reasons. First, as previously noted in the discussion of the history preceding the curriculum being evaluated through this study, the WRS is theoretically and practically connected to TEI through the PRM and the PSM that preceded it. Second, the TEI is a skills-based theory of emotional intelligence and should translate directly with educational approaches that portend to teach soft skills, as does the WRS.

Conceptual Framework

The conceptual framework that guides this study will be the simultaneous mixed-methods design. Capitalizing on the simultaneous nature of the framework, interviews with participants will proceed at the same or nearly same time as and in conjunction with the quantitative data collection and analysis efforts.

Research Questions

Research can only be successful when it is aligned from conception to findings and resulting recommendations or product. Research questions are critical because they refine the study's focus and align intended data collection and analysis plans with the research problem, purpose, and theoretical and conceptual frameworks. The overarching research question for this study aligns the problem and purpose to determine the extent to which the WRS is effective for

helping people obtain, retain, and achieve meaningful success in the job market. The study to build out the resource guide for the WRS program will follow three phases of (a) reliability and validity studies to establish the assessment instruments and tools used in the WRS, (b) quantitative methodology questions that will address inferential analyses to establish the JRM assessments' abilities to differentiate performance based on criterion measures, and (c) qualitative methodology questions designed to understand the program's performance from individual participants' perspectives. The following research questions will guide the study.

Phase 1: WRS Instruments' Validity and Reliability

QNRQ1: What evidence of validity is there for the 128-item JRM long version (JRM-L), the 64-item JRM short version (JRM-S), and the JRS assessment instruments?

QNRQ2: What evidence of reliability is there for the 128-item JRM long version (JRM-L), the 64-item JRM short version (JRM-S), and the JRS assessment instruments?

QNRQ3: What is the relationship between both versions of the JRM and the JRS (scale by scale correlations, as well as total summated score correlations)?

QNRQ4: What is the relationship between the JRM scales and the PSM scales?

Phase 2: Instruments' Power to Differentiate Performance

QNRQ5: What is the difference in HS GPA based on JRM-L scores?

QNRQ6: What is the difference in HS GPA based on JRM-S scores?

QNRQ7: What is the difference in HS GPA based on PSM scores?

QNRQ8: How is job success predicted by the JRM scales?

QNRQ9: How is job success predicted by the PSM scales?

QNRQ10: What is the difference in performance on the eight JRM competencies before and after participants have completed the cloud-based training?

QNRQ11: What is the difference in employer JRS ratings for employees who have completed the WRS when compared to employer JRS ratings of similar job description employees who have not completed the WRS?

Phase 3: Qualitative (QL) Research Questions

QLRQ1: What are the perceptions of WRS students about the cloud-based training?

QLRQ3: What are the perceptions of employers about WRS graduates?

QLRQ3: What are the perceptions of employers about the soft skills competencies included for training by the WRS?

Possible Types and Sources of Information or Data

Quantitative data will be collected using the JRS and both versions of the JRM. The JRM assessments use 4 possible responses, multiple-choice, single correct answer format, and their measures will be treated as categorical measures for analyses. For the JRM long version (JRM-L), the summated theoretical minimum and maximum score will be 0 and 16, respectively, for each of the 8 scales. For the JRM short version (JRM-S), the summated theoretical minimum and maximum score will be 0 and 6, respectively, for each of the 8 scales. The JRS has six items each of the eight scales and uses a three-point Likert responses scale measured from 0 for *Least* responses, 1 for *Sometimes* responses, and 2 for the *Most* responses. The JRS measures will also be treated as interval/ratio data for statistical analysis purposes.

Data Analysis and Results

QNRQ1: Evidence of JRM Instrument Content Validity.

Initially 65 high school students responded to the JRM-S (n = 35) and JRM-L (n = 30). Paired data for the JRMs were also provided for all 65 respondents for the PSM, a validated measure of personal-emotional skills and emotional intelligence (Nelson & Low, 1981). To demonstrate evidence of instrument reliability within instruments, inter-scale correlations were run to evaluate the inter-scale relationships within each instrument and to the summated totals for the constructs being measured. The extent to which an instrument's scales are correlated provides evidence that the scales measure similar overall constructs. Topical relevance and value is demonstrated when the scales are somewhat correlated, but not highly correlated. Moderate correlations demonstrate that the scales are measuring similar constructs while very strong correlations indicate that the constructs being measured are essentially the same. The goal would be that the scales be somewhat related to demonstrate topical relevance and worth, but not so highly correlated that they all measure the same construct.

The percentage of correct answers was used to compute the totals for each scale. The Pearson product moment inter-scale correlation results for the JRM-L are provided in Table 1. The Planning/Organizing scale was not significantly related to Critical Thinking, Interpersonal-Soft Skills, or with Media Rules, but was significantly correlated with the remaining four scales. The remaining six JRM-L scales less Media Rules were significantly correlated with each other and very significantly correlated with total job readiness. The Media Rules scale was not significantly correlated with any of the other seven JRM-L scales or with total job readiness. It seems the Media Rules scale is measuring something quite different from the job readiness

constructs represented by the other seven scales. Spearman rho correlation results are provided in Appendix A.

Table 1

Pearson r Correlations for the JRM-L (n = 30)

	JRM Scales								
	A	C	PO	CT	IS	T	P	MR	TJR
A	1								
C	.490**	1							
PO	.380*	.520**	1						
CT	.669**	.433*	.238	1					
IS	.632**	.549**	.264	.585**	1				
T	.519**	.605**	.444*	.449*	.507**	1			
P	.618**	.465**	.370*	.400*	.468**	.514**	1		
MR	.072	-.079	.002	.157	-.104	.223	.229	1	
TJR	.807**	.753**	.597**	.728**	.746**	.797**	.750**	.216	1

* $p < .05$, ** $p < .01$

Note: A = Attitude, C = Communication, PO = Planning/Organizing, CT = Critical Thinking, IS = Interpersonal/Soft Skills, T = Teamwork, P = Professionalism, MR = Media Rules, TJR = Total Job Readiness

As the number of items in an instrument are reduced, the psychometric performance of the instrument may become less robust. While these observations may or may not affect the instrument's ability to differentiate a person's performance based on criterion success measures, the purpose of this section is to report the properties of instrument reliability and validity. The

instruments' ability to predict and differentiate performance will be addressed in Phase 2 of the study.

The Pearson Product Moment correlations of the JRM-S are presented in Table 2. The effect of reducing the number of items by half extinguished the inter-scale correlations of the short instrument, as compared to the longer 16-item version. As with the JRM-L, the individual JRM-S scales significantly contributed to the total job readiness measure. In this case, even the Media Rules measure was significantly but weakly correlated with the JRM total score.

Table 2

Pearson r Correlations for the JRM-S (n = 35)

	JRM Scales								
	A	C	PO	CT	IS	T	P	MR	TJR
A	1								
C	.206	1							
PO	.307	.195	1						
CT	-.212	.021	.136	1					
IS	-.002	.152	-.041	.113	1				
T	.244	.211	.325	.091	.082	1			
P	.250	-.007	.145	.011	.171	.068	1		
MR	.-.083	.156	.303	.217	-.198	.228	-.293	1	
TJR	.467**	.443**	.646**	.430**	.431**	.534**	.407**	.396*	1

* $p < .05$, ** $p < .01$

Note: A = Attitude, C = Communication, PO = Planning/Organizing, CT = Critical Thinking, IS = Interpersonal/Soft Skills, T = Teamwork, P = Professionalism, MR = Media Rules, TJR = Total Job Readiness

QNRQ2: Evidence of JRM Instrument Reliability.

Reliability tests using split-half correlations and estimates of internal reliability are only suitable for Likert scale instruments. Because the JRM instruments are multiple choice and not Liker scale measures, an estimate of reliability was accomplished using a variation of a parallel forms comparison of item performance. While the two instruments were completed by different participants (i.e., independent samples), all participants were high school students from the same geographic area. It was assumed, therefore, that the performance on the same items between the two instruments would be similar for the two groups. Based on this assumption, small variations in item performance between the two instruments would provide evidence of instrument reliability.

The average difference in performance between the JRM-S and JRM-L instruments when comparing the items on the percentage of correct answers was only 6.8%. The widest difference in item performance was 20% and this difference level was observed only one time (Item 47 on LM-S/Item 87 on LM-L). As the range of difference between items came down, so did the observed frequency of the improved performance. For example, five of the 64 items shared by the two instruments had zero difference (no variation) between the two instruments. Overall, the small and decreasing range of variation in item performance between the two instruments provides evidence of instrument reliability. In considering future data collection strategies, a better reliability test would be to collect data from students twice using the same instrument in

short succession. This conventional approach to assessing test-retest reliability would provide additional evidence of the measurement reliability for both instruments.

A philosophical question related to the quality of multiple choice items was raised during the process of comparing the variance of item performance between the two instruments. The question is related to the percentage of correct versus incorrect answers on an item that would help define whether it was an inherently good or inherently poor test item. For example, several of the items had less than 70% of the participants respond with the correct answer. Our lingering question, and one for which we have no answer, is at what point does the item become a bad item based solely on the number of participants who are unable to guess the correct response? If nothing else, we would recommend that items with a high error rate be examined closely as candidates for possible revision.

QNRQ3: The JRM-L to JRM-S Inter-scale Correlations

The extent to which two parallel forms of an assessment are correlated across their scales may also provide evidence of instrument agreement, or reliability. A Pearson Product Moment correlation was run to evaluation the relationships between the scale totals of the JRM-L and JRM-S instruments. Only two scales were significantly correlated between the two versions. Critical Thinking and Teamwork was significantly correlated between the two versions. With a larger number of participants, the correlations would likely manifest as expected.

QNRQ4: The Relationship Between the JRM and PSM Scales

Given that the only consistent correlations have been produced (based on this sample) using the JRM-L, a bivariate Pearson Product Moment correlation was run to determine the relationship between the JRM-L and the PSM scales. Between the JRM-L's eight scales and the PSM's fourteen scales, there are a total of 112 (8 X 14 = 112) possible correlations that could

exist between the two measures. Because the PSM® is a valid measure of a skills-based model of EI, a high frequency of inter-scale correlations would provide evidence that the JRM-L also measures a similar construct. This finding, however, did not materialize, and there were only 5 statistically significant correlations.

The PSM's Decision Making and the JRM-L's Critical Thinking measures resulted in a significant positive correlation ($r = .414$, $p = .023$). The PSM Stress Management scale was significantly, positively related with Interpersonal and Social Skills from the JRM-L ($r = .476$, $p = .008$), and Aggression was significantly, inversely related to Planning and Organizing ($r = -.397$, $p = .030$). Finally, the PSM's Physical Wellness scale was significantly related to two JRM-L scales; Attitude ($r = .431$, $p = .017$) and Critical Thinking ($r = .455$, $p = .011$). While limited, the correlations that were found are in the expected direction (i.e., aggression interferes with rather than contributes to one's ability to plan and organize). There are two possible explanations for lack of expected correlations. Either the number of participants ($N = 30$) was not sufficient to reveal significant correlations that are actually present or the JRM and PSM predominantly measure two distinctly different constructs.

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