

# **Comparison of Perceived Needed Soft Skills of Undergraduate, Non-Traditional, Online Business Students to Employers’ Desired Soft Skills of Employees**

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*Soft skills development contributes to life-long learning and may help develop resilience and retention for long-term career success. The purpose of this research is to ascertain if adult learners with work experience have the requisite soft skills to advance their careers post-graduation. Human resource professionals’ priorities during the hiring process are also evaluated. Two questionnaires were completed with 805 combined adult learners and human resource professionals. The study suggests the balance of work experience and business program curriculum is the right foundation, combined with hard skills knowledge, to adequately prepare students for the right level of professional qualifications.*

*Keywords: soft skills, hard skills, adult learners, human resource managers, employability, organizational behavior*

## **INTRODUCTION**

The researchers conducted interviews with a selected group of regional business employers which revealed there may be a soft skills gap in employee promotional opportunities. To that end, a literature search shows a need to identify the most important 21<sup>st</sup> century workforce competencies (Dean & East, 2019; Succi & Canovi, 2019). To align business and education, skill preparation cannot be taken for granted. The lack of soft skills required for business degree graduates could influence the company’s competitiveness. Soft skills have a direct correlation to an individual’s professional advancement and training may be viewed as a productivity issue in addition to the transfer of the skills context (Lok et al., 2021). This research distinctly identifies the requisite soft skills perceived as important by employers, and current students, as well as the differences and similarities between the two groups.

Literature is readily available with numerous studies related to soft skills development within a university course curriculum, or a workplace setting through learning and development opportunities. The existing literature on the comparison to perceived soft skills of employers and adult learners enrolled in an

online program is not as well articulated. This research has evaluated the gap between adult learner students and employers who are evaluating existing employee soft skills and also those of new employee candidates.

## **LITERATURE REVIEW**

As the workplace in the 21<sup>st</sup> century becomes increasingly competitive, technical skills are no longer the only emphasis to evaluate in the hiring process. Global competition and the growth of a macroeconomy require a workforce that is a balance of hard and soft skills with a high level of competence to deal with any business scenario (Sharma, 2018). As early as 1960, technology requirements were the indicator of skill requirements. During the period from 1960 to 1985, the economy and business structure needs lessen the need for motor skills and increased the need for critical thinking and interpersonal skills (MacDermott & Ortiz, 2017).

A higher level of importance for soft skills, or human interpersonal skills, includes the emphasis by employers on effective communication skills (Dean & East, 2019). Ongoing, a balance of technical knowledge, most often known as hard skills, in addition to soft skills, maybe the norm for the evaluation of candidates during the employer hiring process. The needs for the future will create more automation and shift the balance between hard and soft skills to spend more time on activities that cannot be accomplished by machines. Leading and managing people, relating expertise, and communicating through appropriate channels will become clearer and more succinct since the world of work is ever-changing (Harlow, 2022).

Employers have made it clear that hiring new employees and promoting existing employees requires excellent soft skills to experience career success. Soft skills are core communication skills, employability skills, key competencies, and emotional intelligence skills. Applied in the workplace, these skills include the ability to make presentations, write, listen, time management, collaborate, and management of the self (Blaszczynski & Green, 2012). According to Jackson and Hancock (2010), employers are dedicated to identifying job candidates who have non-technical skills ready to make a valuable and immediate impact in the workplace.

A well-prepared labor force will continue to grow in need of an information-driven and competitive global economy. It is not well-known what types of training will be necessary for the gap in required skills in the future for college graduates looking for new career opportunities. What is known is that employers have expressed malcontent regarding the undergraduate real-world understanding of the working business world (Wilton, 2014). As far back as the 1980s, a need was indicated for job candidates that possess strong oral and written communication skills. Progressing further into the 21<sup>st</sup> century, researchers provided more insight into the previously identified soft skills, in addition to problem-solving skills, inspiration, affiliation, and emotional intelligence (MacDermott & Ortiz, 2017).

The literature gap does not indicate a relationship between the soft skills required by the employer and the understanding of the soft skills required to qualify for post-graduate positions by business students. Overall, there is a need to augment and equalize soft skills with intellectual development for students seeking business career positions (Winstead et al., 2009).

### **Creating Employable Business Graduates**

Employability is intellectualized as skills and attributes that, on a general basis, will be attractive for employers in any industry. Students pursuing a business degree will need to foster their development of soft and hard skills, personal attributes, and discipline-specific skills (Rowe & Zegwaard, 2017). The most common business curriculum provided by higher education is to focus on the ability to evaluate relevant disciplinary information to make decisions. A gradual shift has focused continuously on the cognitive hard skills, but also to more emphasis on soft skills such as self-awareness, communication, empathy, and teambuilding (Lok et al., 2021).

Increasingly, employers are requiring candidates to have job-ready skills to add value immediately to the success of their organization. Curriculum and pedagogical strategies are one program method to maximize learning opportunities. Employability skills must also be authentic and may also create resource constraints through experiential learning-based models such as service learning, cooperative education, and

project-based work. Other opportunities such as internships, service learning, volunteering, simulations, and practicums may create the breadth of exposure to develop and apply hard and soft skills (Rowe & Zegwaard, 2017).

### *Adult Learners as Business Graduates*

The balancing act of adult learners for returning to school to enhance their skills and knowledge will help to meet goals for expanded career opportunities and a higher level of education credentials. Students who are typically considered adult learners are most often over the age of 25 and due to lifestyle issues, may be seeking online programs for flexibility (SREB, n.d.). Adult learners are usually working full time (44%) and approximately 24% are working part-time. In addition to a formal degree completion program, there is a wide range of credentials that institutions are developing for adult learners, such as stackable credentials, professional certificates, micro-credentials, or badges (ACE, 2016).

Adult learners are a diverse group with many cultural influences and almost universally have adult responsibilities (e.g., career, family, and financial). Some learners may have “stopped out” of education earlier with intentions to return at the right time. The traditional timeline to enroll in secondary education following high school graduation is not characteristic for non-traditional, and older adult learners (SREB, n.d.).

In addition, Ritter et al., (2018) found curriculum changes to address the soft skills desired by companies are needed in higher education and can be accomplished; thus, establishing a larger qualified pool for recruiters. Even though Ritter et al., conducted the research face-to-face, the same would apply to online programs. Embedding soft skill teaching into the online curriculum is important, but more so for undergraduates (Tseng et al., 2018). Their research compared the soft skills of online business students at different grade levels, as well as managerial roles. They found undergraduates have not developed soft skills to the level of graduate students. Business faculty in higher education may achieve the development of soft skills with six pedagogical steps: pre-evaluation, conceptual learning, patterning, performing, response, and application (Varela, 2020).

A study comparing interpersonal abilities and emotional intelligence (EI) of undergraduates in a business school did show students who completed more than one online course scored higher in the Situational Test of Emotional Management (STEM) (Lindsey & Rice, 2015). The results of this study open the door to the possibility of online education being able to enhance soft skills similar to face-to-face courses; which is contradictory to the status quo of online education being inferior when it comes to soft skill development.

### *Whole Person Learning*

The holistic nature of learning, especially for adult learners, is complex and with it is a blend of work experience acquired over time, with new technical and soft skills learned in a degree program. Hard skills are gained through formal education with measurable outcomes that are confirmed and examined over time (Majid et al, 2019). Rowe and Zegwaard (2017) summarized several skills that are either “immeasurable or difficult to measure” that include generic and professional skills that could easily apply to the adult student. The following assessments of skills are difficult to measure: (1) capability for professional judgment; (2) collegiality and cooperativeness, ability to self-reflect; (3) ethical conduct and respect for others; and (4) a sense of social responsibility. One approach for employers to highlight the value of learning holistically is to recognize the complexity of the workplace roles based on situation, authenticity, and irregularity to individual circumstances. The institution granting the degree to the adult learner may have more concrete methods to measure skills through oral reports, portfolios, or reports as part of course activities (Rowe & Zegwaard, 2017).

### **Priorities for Employers and Soft Skill Development of Employees**

Soft skill knowledge is the competitive advantage for a job candidate since years of career work experience don't necessarily indicate that behavior has been modified and adapted in the workplace (Lindzon, 2018). Adult learners are typically experienced but lack the education credentials for career

advancement. Career durability is another term that reflects the intentional development of new skills, knowledge, and the mindset to be an engaged and productive employee (Rockwood, 2021).

Vital skills such as integrity and empathy affect overall performance and skills for decision-making, coaching, engaging, planning, and organizing (Van Deuren, 2018). The Society for Human Resources (SHRM) indicated that problem-solving and the ability to deal with complexity and ambiguity were missing skills in the breadth of job candidates (Richmond, 2021). Human resource professionals are focused on moving the business forward to create employee motivation that reflects the leaders' desire for better communication, understanding, and adaptability (Crawford, 2021).

Soft skills are considered essential assessments for hiring and ongoing performance development. The American Management Association (AMA) conducted a study in 2010 that assessed new hires and the root cause of lacking the requisite soft skills. The participants indicated that 91% of global competitiveness today affects how work is accomplished. The same survey results also showed that combining reading, writing, and arithmetic with critical thinking, creativity, collaboration, and communication are the leading indicators for students to be prepared for the demands of the business workforce (MacDermott & Ortiz, 2017).

Situational awareness is another indicator of achieving organizational goals and objectives. When an employee can consider the best approach to be dependable, resourceful, and self-directed, this is an effective equation to complement the hard skills required to qualify for a position in a business organization. The example of team effectiveness is evident when strong interpersonal skills allow the employee to actively listen as others explain their needs. A diverse and inclusive environment creates the atmosphere for him or her to negotiate interactions that are heard, understood, and respected with a high level of soft skills (Chattoraj & Shabnam, 2015).

## **CATEGORIZATION OF SOFT SKILLS**

Three groupings of soft skills are recognized for this study: individual skills, collaborative skills, and procedural skills.

### **Individual Soft Skills**

#### *Work Under Pressure*

Time management is defined as the ability to plan and organize priorities for work activities. Working smarter is an enabler to accomplish more in less time without having to work harder. When time pressures are high, lack of time management causes stress and reduces effectiveness (Vasanthakumari, 2019). Ongoing self-assessment identifies areas of improvement to build an individual path built on values of life-long learning (Gruzdev et al., 2018).

#### *Innovative Problem-Solving*

Activities related to the job position and new ideas for improvements related to products and services offerings provided by the organization (Succi & Canovi, 2020). As an example, a cost/benefit analysis can have long-term implications to create viable solutions for business problems (Allam, 2011).

#### *Integrity and Empathy*

Building trust and rapport creates a compassionate mindset in the workplace. However, it may be challenging to be true to others and aspire to personal values that represent integrity. Empathy is demonstrated when another person can see a different view through their eyes and "walk on their path" (Van Deuren, 2018). Compassion is another way to communicate empathy that allows leaders to listen and act. Treating employees as if they are valued creates a place where a person feels safe without concern or judgment. A State of Workplace Empathy report published in 2020 suggests that 76% of workers consider motivation to be integral to an empathetic organizational culture (Crawford, 2021).

### *Emotional Intelligence*

Managing people's emotions, through the process to perceive, facilitate and comprehend is emotional intelligence (Sadovyy et al., 2021). Emotional intelligence is a learnable skill that includes awareness, perception, and how a person can lead with empathy, influence, and collaboration. During a time of crisis or conflict, it is important to avoid groupthink where everyone is agreeing with each other and not thinking on their own. Instead, emotional intelligence creates psychological safety in the organization to increase performance (Clark, 2020). Allam (2011) suggests that emotional intelligence is why people excel in performance over others with the same level of training and experience.

## **Collaborative Soft Skills**

### *Communication*

All employers place a priority on how an employee interacts with others, takes initiative, and demonstrates the ability to achieve results. Skills related to business communication also include traits that professionals use to convey information in the workplace. These skills are broad and include active listening to use in negotiations or networking. Team collaboration includes giving and receiving clear and succinct feedback to encourage creative thinking. Constructive feedback supports reflective thinking and improvement (Valera, 2020).

### *Team Work*

Phillips et al. (2020) identify teamwork as a critical soft skill for employees at any level, to recognize the need for a mindset to support the larger mission of the organization. Attributes include coordinating, cooperating, and collaborating with others to build trust (Harlow, 2022). Assisting team members orchestrates the interdependent actions of motivation to evaluate the team's mission. Conflict management will control and guide team conflict (Varela, 2020).

### *Global and Cultural Diversity*

According to Florentine (2019), when diversity is present in the workplace, it sets the tone for better performance. The risk of being publicly called out for lack of diversity in recruiting is one way to lose competitive advantage. Companies are increasing their focus on diversity in the workplace to avoid having a tarnished reputation. The emphasis should be on creating an atmosphere of inclusion to promote creativity and a sense of belonging (Richmond, 2021).

### *Leadership Skills*

Recruitment of leaders may include general personality traits such as self-confidence, enthusiasm, assertiveness, extraversion, authenticity, trustworthiness, humility, and sense of humor. The level of experience and fit for the role is driven by the ability to "walk the talk" and the ability to trust an individual's intentions and motives. It is important that behavior matches intentions (Dubrin, 2010).

### *Business Etiquette*

Positive business practices require good etiquette to recognize and respect differences within the workplace. Acknowledging a person's name is the first step to learning about someone and greeting people by name will establish rapport. Handshakes are the universal greeting. Nodding and smiling while someone is speaking will imply active listening. Learning the cultural correctness of a team requires active listening skills to prevent confusion due to miscommunication (Sadovyy et al., 2021).

## **Procedural Soft Skills**

### *Quantitative Skills*

This category of professional skills involves reasoning and understanding numerical data to solve problems and make decisions. Quantitative skills in fields such as health care, financial services, or manufacturing may indicate the ability to conduct research and examine efficiency results, in addition to other numerical data for decision making (Wilton, 2014).

### *Flexibility for Organization Changes*

Depending on the position, the ability to accomplish tasks that are dynamic and changing indicates the potential for high performance. Defined task activities contribute to reliability and consistency (Allam, 2011).

### *Critical Thinking*

The ability to research and create a critical analysis of information and relate a systemic approach to problem solving. An action strategy is a sequence for implementation (Gruzdev et al., 2018). A logical understanding of the correlation to ideas will build upon the aptitude to consider rational thinking (Vasanthakumari, 2019).

### *Ability to Make Decisive Decisions*

Considering alternative solutions will support the cognitive process of a belief, or course of action based on several alternative options (Vasanthakumari, 2019). The pros and cons for each solution should match the course of action related to the nearest desirable outcome. At a personal level, it is important to be focused only on the factors within the scope of control and recognize the factors outside the control for decisions (Phillips et al., 2020).

### *Responsible to Get the Job Done*

Applying work habits such as maintaining wellness, time management, follow through, and initiative creates the ability to contemplate information and skill development (Phillips et al., 2020). One example is the ability to determine the range of tasks to organize and manage teamwork to achieve the desirable outcomes (Gruzdev et al., 2018).

## **THEORETICAL FRAMEWORK**

Soft skill fulfillment is one subset of career decision behaviors demonstrated through the social cognitive career theory (Lent et al., 1994). One example is the greater the soft skill effectiveness, the greater the self-efficacy perceptions to complete a behavior successfully. Lent et al. (1994) suggest that combined academic interests and career-related activity promote skill development. Formal education learning experiences contribute to skill development, including soft skills that lead to the combined skills necessary for social and economic stability (Smith, 2002). Over time, there are chosen soft skills that are developed through repeated activity engagement and feedback from others to enhance a sense of efficacy for tasks and skills. A strong sense of self-efficacy beliefs leads to life-long learners that are valued members of society (Smith, 2002). Heckman and Kautz (2012) suggest that soft skills are an indicator of career success, and programs that enhance soft skills are a positive indicator of a career portfolio.

The social cognitive theory validates soft skill development for a career position that is sustained through performance. If a strong sense of efficacy related to soft skills is not continuously evaluated, the challenge may result in failure or rejection (Lent et al., 1994). Learning experiences in academic settings and the workplace are all opportunities for soft skill development. The social cognitive theory supports a plateau of self-efficacy once a skill is mastered. Individuals with increased soft skill experience may surpass their level of skill development. Another consideration over the span of a career is related to the skills required to perform a task related to job performance, which may equal those of other individuals who demonstrate performance well above a threshold level of mastery. Long-term career adaptation requires a great variety of soft skills that extends beyond technical, subject-specific competence (Lent et al., 1994).

## **RESEARCH QUESTIONS**

This study has two research questions that examine the priority and relationship of soft skills for professional positions desired by employers compared to the perceptions of adult learner undergraduates.

**RQ1:** *What are the priority soft skills required by employers for hiring of new, non-traditional undergraduates for professional positions?*

**H1<sub>0</sub>:** *There are priority soft skills required by employers for hiring of new, non-traditional undergraduates for professional positions.*

**H1<sub>a</sub>:** *There are no priority soft skills required by employers for hiring of new, non-traditional undergraduates in professional positions.*

**RQ2:** *What are the priority soft skills understood to be required by working adult student for career advancement?*

**H2<sub>0</sub>:** *There are priority soft skills understood by working adult students for career advancement.*

**H2<sub>a</sub>:** *There are no priority soft skills understood by working adult students for career advancement.*

## **METHODOLOGY/DESIGN**

### **Subject Selection Criteria**

For this study, the authors prepared two Qualtrics surveys, one for human resource professionals and the other for working adults asking respondents about their perceptions of soft skills. We contracted with Qualtrics to provide a panel of human resource professionals and a second panel of working adult students enrolled in an online undergraduate program. Each panel was to have a minimum of 400 participants. The respondents, human resource professionals, and student employees were not required to work for the same organization. Surveys for both groups asked the respondents to rank the importance of the individual, collaborative, and procedural skills discussed in the literature review. After ranking the soft skills within the categories, the subjects ranked the importance of the categories themselves.

The criteria for recruitment of human resource professionals were work experience of five years or more in human resources, plus a talent acquisition emphasis role. The criteria for working adult students were five years or more of work experience and enrolled in an online business bachelor's degree program.

### **Instrument**

Each of the two surveys began with three screening questions to determine that the respondents were qualified, referencing the criteria mentioned above, and agreed to complete the survey. Per the researcher's university IRB policy, respondents had the option not to respond to every question. Once the subjects passed the screening criteria and agreed to participate, the first block of questions was demographic, asking about age, gender, work industry, and the number of employees in their company. The second block asked respondents to rank the individual skills of working under pressure, innovative problem-solving, integrity, emotional intelligence, and work ethic according to their perceived importance. The third block required the subjects to rank five collaborative skills: communication, teamwork, global and cultural diversity, leadership, and business etiquette. Finally, the fourth block asked about the importance of procedural skills: quantitative, flexibility to organizational changes, critical thinking, ability to make decisive decisions, and taking the responsibility to get a job done. For each block of questions, brief definitions of the skill types were provided. The ranks assigned were 1, 2, 3, 4, and 5, with a rank of 1 indicating greatest importance to 5 being least important, with the subjects having to choose a different rank for each skill within a category. No tie ranks were allowed.

After ranking the skills within the individual, collaborative, and procedural categories, the next block asked participants to rank the importance of those skill categories. Again, the ranks used were most important (1) to least important (3). The participants could not reuse a rank again.

## SAMPLE

### Respondent Demographics

The sample size was 805 respondents, 402 were human resource professionals, and 403 were undergraduate business students. The research participants were required to have a minimum of five years of work experience to qualify for the study. However, gender and ages were of interest, as well as the organization's size and industry. Table 1 summarizes that the human resource professionals were predominately female (68%), as were the business students (52%). Most respondents were middle age or younger, with less than 14% of the students aged 45 or older. The highest percentage of subjects worked for medium-sized organizations (28%), healthcare (18%), and information technology (17%) industries.

**TABLE 1**  
**DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

Characteristic	Human Resource Professionals	Students
Gender		
Male	127	191
Female	275	211
Age		
25-34	108	163
35-44	156	184
45-54	77	43
55+	61	13
Organizational Size		
1-50	50	73
51-250	94	89
251-1000	117	110
1001-5000	78	73
5000+	63	58
Industry		
Financial Services/Banking	25	57
Healthcare	75	66
Information Technology	41	93
Food and Hospitality	30	19
Manufacturing	35	29
Retail	28	32
Automotive	8	8
Education	59	38
Other	101	61

*Note.* The frequencies for the human resource professionals (n = 402) and the business students (n = 403) are shown. The only missing data is for one student who did not identify gender.

## RESULTS

### Mann-Whitney Test

Ranked data are ordinal, not interval; therefore, the chosen analysis method is the Mann-Whitney test. The Mann-Whitney is a non-parametric test that examines the differences between two independent samples. The survey asked respondents to rank the importance of the individual, collaborative, and procedural skills from the most important (1) to the least important (5). A scale of most (1) to least (3) was used to compare the relative importance of the individual, collaborative, and procedural skills categories.



The Mann-Whitney test results report each variable's median rank (Mdn); its U statistic and probability (p) are reported. When significant differences between medians are found, the z-score (z) and effect size (r) is calculated to determine the strength of the relationship (Field, 2013). When testing for significance, it was assumed  $\alpha = 0.05$ . The U statistic results from summing the ranks of the variable and the group's sample sizes. In the study, the large sample sizes resulted in large U statistics. For comparison, each variable's means and standard deviations were included, however, means would be more relevant if the data were interval (Likert), not ordinal.

*Individual Skills Needed for an Entry-Level Position*

The personal skills that employees bring to their job can impact their success. The research identified a series of personal skills: working under pressure, solving problems, and possessing integrity, emotional intelligence, and a work ethic necessary for an entry-level position. Table 2 reports the Mann-Whitney test results for the importance of individual skills.

**TABLE 2**  
**COMPARISON OF MEANS, STANDARD DEVIATIONS, AND MEDIAN RANKS FOR**  
**INDIVIDUAL SKILLS NEEDED FOR AN ENTRY-LEVEL POSITION BY HUMAN**  
**RESOURCE PROFESSIONALS AND BUSINESS STUDENTS (N = 775)**

Skill	Human Resource Professionals		Students		U	p
	M (SD)	Mdn	M (SD)	Mdn		
Work under Pressure	2.89 (1.32)	3	2.66 (1.37)	3	67,761	.016
Problem Solving	3.09 (1.37)	3	2.95 (1.33)	3	70,507	.134
Integrity	2.64 (1.40)	2	2.69 (1.36)	3	76,892	.551
Emotional Intelligence	3.83 (1.23)	4	3.80 (1.18)	4	73,280	.547
Work Ethic	2.56 (1.39)	2	2.90 (1.51)	3	84,561	.002

*Note.* The results show the comparison between human resource professionals (n = 389) and business students (n = 386).

Working under pressure, problem-solving skills, and emotional intelligence ranked equally between managers and students. Despite equal ranks for working under pressure, the U statistic for the comparison indicated a significant difference between the two groups,  $U = 67,761$ ,  $z = -2.402$ ,  $p = .016$ ,  $r = -.09$ . Although managers ranked integrity higher (Mdn = 2) than students (Mdn = 3), the analysis did not indicate a significant difference between rankings,  $U = 76,892$ ,  $p = .551$ . Finally, for entry-level skills, students ranked work ethic (Mdn = 3) lower than the human resource professionals (Mdn = 2), and there was a significant difference in ranking between the two groups,  $U = 84,561$ ,  $z = 3.12$ ,  $p = .002$ ,  $r = .11$ .

*Collaborative Skills Needed for an Entry-Level Position*

This research studied the collaborative skills of communication, team, diversity, leadership, and business etiquette. The results of the Mann-Whitney analysis for this portion of the study are in Table 3. Note the agreement between the two subject groups; all five collaborative skills received the same ranking with almost no significant differences.

**TABLE 3**  
**COMPARISON OF MEANS, STANDARD DEVIATIONS, AND MEDIAN RANKS FOR**  
**COLLABORATIVE SKILLS NEEDED FOR AN ENTRY-LEVEL POSITION BY**  
**HUMAN RESOURCE PROFESSIONALS AND BUSINESS**  
**STUDENTS (N = 769)**

Skill	Human Resource Professionals		Students		U	p
	M (SD)	Mdn	M (SD)	Mdn		
Communication	2.01 (1.06)	2	2.13 (1.20)	2	76,678	.343
Team	2.54 (1.23)	2	2.68 (1.22)	2	79,022	.088
Diversity	4.01 (1.18)	4	3.59 (1.34)	4	61,099	.000
Leadership	2.98 (1.23)	3	3.08 (1.38)	3	77,327	.256
Business Etiquette	3.46 (1.33)	4	3.50 (1.39)	4	75,798	.527

*Note.* The results show the comparison between human resource professionals (n = 390) and business students (n = 379).

The human resource professionals and the business students gave their highest rankings (Mdn = 2) to communication and team skills, followed by a middle-ranking for leadership (Mdn = 3), and their lowest rankings to diversity and business etiquette (both Mdn = 4). The only significant difference between the ranks of the two groups was diversity. Even though both managers and students reported a median rank of 4, the U = 61,099 resulted in a z = -4.387 and p = .000, although the effect size, r = -.158, is small.

*Procedural Skills Needed for an Entry-Level Position*

Procedural skills are those needed to perform tasks or complete a process. In this study, the five skills reviewed were quantitative, flexibility to navigate organizational changes, critical thinking, the ability to make decisions, and accepting the responsibility to complete a job. Table 4 illustrates that business students ranked every procedural skill as 3. By comparison, the human resource managers agreed with those rankings for quantitative and critical thinking skills but disagreed when evaluating flexibility, decision-making, and accepting responsibility. The managers ranked accepting responsibility higher with a median rank of 2 and flexibility and decision-making lower with a median rank of 4.

**TABLE 4**  
**COMPARISON OF MEANS, STANDARD DEVIATIONS, AND MEDIAN RANKS FOR**  
**PROCEDURAL SKILLS NEEDED FOR AN ENTRY-LEVEL POSITION BY HUMAN**  
**RESOURCE PROFESSIONALS AND BUSINESS STUDENTS (N = 776)**

Skill	Human Resource Professionals		Students		U	p
	M (SD)	Mdn	M (SD)	Mdn		
Quantitative	2.88 (1.32)	3	2.72 (1.38)	3	69,889	.078
Flexibility	3.37 (1.38)	4	3.19 (1.43)	3	70,146	.093
Critical Thinking	2.78 (1.35)	3	2.81 (1.34)	3	76,221	.755
Decisions	3.37 (1.34)	4	3.23 (1.27)	3	70,030	.085
Responsible	2.60 (1.50)	2	3.05 (1.57)	3	87,440	.000

*Note.* The results show the comparison between human resource professionals (n = 390) and business students (n = 386).

While the median ranks between the two groups differed for three of the five skills, the Mann-Whitney analysis yielded only one statistically different comparison at the .05 level. When it came to accepting responsibility for finishing work, the ranking from human resource professionals (Mdn = 2) was significantly higher than that awarded by students (Mdn = 3), as explained by  $U = 87,440$ ,  $z = 4.002$ ,  $p = .000$ , with a small effect of  $r = .144$ .

#### *Skill Categories Needed for an Entry-Level Position*

After evaluating the importance of the skill types within their various categories, the subjects were asked to rank those skill categories: individual, collaborative, and procedural according to the strongest need for professional development. Table 5 shows, human resource professionals and students uniformly ranked all the skill categories with a high median of 2. Furthermore, based on the Mann-Whitney analysis, all the p-values associated with the U statistics were well above .05, indicating no significant differences in the group medians.

**TABLE 5**  
**COMPARISON OF MEANS, STANDARD DEVIATIONS, AND MEDIAN RANKS FOR SKILL**  
**CATEGORIES NEEDED FOR AN ENTRY-LEVEL POSITION BY HUMAN RESOURCE**  
**PROFESSIONALS AND BUSINESS STUDENTS (N = 745)**

Skill	Human Resource Professionals		Students		U	p
	M (SD)	Mdn	M (SD)	Mdn		
Individual	1.91 (.77)	2	1.85 (.76)	2	66,604	.314
Collaborative	1.90 (.85)	2	1.92 (.85)	2	69,924	.840
Procedural	2.78 (.81)	2	2.81 (.79)	2	71,274	.486

*Note.* The results show the comparison between human resource professionals (n = 368) and business students (n = 377).

## DISCUSSION

The results of this study primarily confirmed the null hypotheses. Both the human resource professionals and online students agreed with the importance of the various types of soft skills and, for the most part, ranked them the same. Also, none of the medians fell into the ranks of most important (1) or least important (5), resulting in median scores were 2, 3, or 4. Our large sample sizes may have contributed to the restricted range of the medians. When we did find significant differences between the medians, we calculated the effect size, *r*, for that relationship. Unfortunately, none of those effect sizes were very meaningful; all the effect sizes were categorized as small because they were less than .3. The following is a closer look at the results by category.

### Individual Skills

Integrity and work ethic was more important to the hiring managers than to the students, with median ranks of 2 from the managers and 3 from the students. However, the only significant differences between the medians were working under pressure ( $p = .016$ ) and work ethic ( $p = .002$ ). The students ranked working under pressure slightly higher than the managers, and the human resource professionals believed having a good work ethic was more important. For the two comparisons yielding significant differences—working under pressure and work ethic—the effect sizes, denoted by the *r* values, indicate a small effect for both. The effect size for working under pressure,  $r = -.09$ , indicated that the ranks of the groups were moving away from each other, but the relationship was not strong enough to be of practical significance. The effect size for work ethic,  $r = .11$ , indicated a positive but weak relationship between the two groups. Both groups ranked problem-solving third.

Most surprising were the results for emotional intelligence. The literature reviewed supported the value of emotional intelligence in employees. However, managers and students gave that skill a median rank of 4, with no significant difference ( $p = .547$ ). Perhaps emotional intelligence was less important than this study's other individual skills.

### Collaborative Skills

Both groups agreed on the median rankings of all five of the collaborative skills—communication and team skills both had medians of 2, Leadership skills had a median score of 3, and diversity and business etiquette skills had median scores of 4. And none of the differences between the medians were significantly different except for diversity ( $p = .000$ ). The literature review indicated that diversity would be more important to the managers and students. When examining the means in Table 3, it appears that students (M

= 3.59) ranked diversity higher than the professionals ( $M = 4.01$ ), but not enough to separate the ranks. The effect size,  $r = -.158$ , indicated that the ranks of the managers versus the students were moving away from each other but not enough to achieve a meaningful relationship.

### **Procedural Skills**

With median scores of 3, students ranked all five procedural skills equally: quantitative skills, being flexible, critical thinking, ability to make decisions, and being responsible for getting work done. Overall, for students, the procedural skills studied were equally important. However, when we examine the means, showed that quantitative skills ( $M = 2.72$ ) and critical thinking ( $M = 2.81$ ) were thought to be slightly more important.

The human resource professionals agreed with the students' rankings for quantitative and critical thinking skills. However, they ranked being responsible for getting work done ( $Mdn = 2$ ) higher than the students, whereas the ability to be flexible ( $Mdn = 4$ ) and make decisions ( $Mdn = 4$ ) ranks were lower. Of those different rankings, only the difference in medians for being responsible for getting work done was significant ( $p = .000$ ), but the effect size of .144 was relatively small.

### **Skill Categories**

After asking participants to rank the importance of skills within the three soft skill categories: individual, collaborative, and procedural, they were asked to rank the importance of the categories themselves. The results indicated that each category was equally important. Professional and student medians were all 2, and there were no significant differences between the medians based on the p-values of .314 (individual), .840 (collaborative), and .486 (procedural).

## **CONCLUSION**

For the most part, the results of our study confirmed our null hypotheses. Both the employers hiring new, non-traditional undergraduates for professional positions and the working adults enrolled in online business programs for career advancement prioritize soft skills. In addition, the soft skills we studied were curated from decades of literature, providing a meaningful set of skills to consider.

The subjects were asked to rank five soft skills within three categories of skills according to their importance on a scale from most important (1) to least important (5), using each level only once for each category. After data collection, the Mann-Whitney test was used to compare the median rankings for each skill within a category. The analysis often found that the two groups agreed on the median ranks. In the cases where the medians were significantly different, the effect size was calculated to determine whether or not the effect was meaningful. The effect sizes were always small, which indicated the difference in medians was insignificant. However, the effect sizes were small, again supporting the original hypotheses.

The sample size for each group of employers and employees included approximately 400 subjects. However, missing data reduced the number of participants for various survey questions. Nevertheless, the sample size for the human resource professionals answering individual questions was never lower than 368 respondents; for the student employees, the minimum number was 377. Therefore, these sample sizes are more than adequate.

In addition to the sample size, another strength was the requirement that employers and employees had worked in their fields for at least five years. This requirement assured us that our respondents had enough experience to evaluate the importance of soft skills. To summarize, the results of the study begin with the three soft skill categories: individual, collaborative, and procedural.

Individual skills are the behaviors and values that employees bring to their jobs. For example, our study asked the respondents about the importance of working under pressure, solving problems, and having integrity, emotional intelligence, and a strong work ethic. The human resource managers ranked having integrity and a work ethic as the most important, with both reporting a median ranking of 2. On the other hand, the student employees ranked each of them a median of 3. Statistically, the ranks for integrity were not different. However, the difference in the ranks for work ethic was different ( $p = .002$ ), but the effect

was small. As for working under pressure, both groups reported a median of 3, with a significant difference ( $p = .016$ ) but a meaningless effect size ( $r = -.09$ ). The last soft skill in the individual skills category, emotional intelligence, was ranked with a median of 4 by managers and employees. This result was unexpected because researchers had reported the benefits of managing one's emotions (Sadovyy et al., 2021; Clark, 2020; and Allam, 2011). Yet, compared to the other soft skill types in this category, many respondents indicated that emotional intelligence (EI) was the least important individual soft skill measured.

The second soft skill category measured was collaborative skills. Collaborative skills are those needed to work with others to accomplish tasks. The collaborative skills measured in this study were communication, teamwork, diversity, leadership, and business etiquette. The two groups reported the same median scores for every type of collaborative skill: communication and teamwork (Mdn = 2), leadership (Mdn = 3), and diversity and business etiquette (Mdn = 4). The lowest rankings for diversity and business etiquette were not expected. Florentine (2019) found that diversity leads to better performance, and Richmond (2021) reported that it promoted creativity and a sense of belonging. Furthermore, Sadovyy (2021) argued that active listening is an etiquette practice that prevents confusion and miscommunication. Even so, our survey respondents judged diversity and etiquette to be the least important of the collaborative skills measured. Although the medians were the same for diversity, the difference between the two group medians was significant ( $p = .000$ ) but not an important relationship ( $r = -.158$ ). The means indicate that the students ( $M = 3.59$ ) were leaning slightly more toward the importance of diversity than the managers ( $M = 4.01$ ).

Procedural skills allow people to perform tasks or complete a process. The procedural skills that were asked of the subjects to measure were quantitative, being flexible to organizational change, critical thinking, decision-making, and being responsible for getting a job done. The human resource professionals ranked in order of importance being responsible for getting work done (Mdn = 2), quantitative and critical thinking (Mdn = 3), and flexibility and decision-making (Mdn = 4). The business student employees ranked all these procedural skills with a median of 3. Only one comparison between medians resulted in a significant difference, which was being responsible for getting a job done ( $p = .000$ ). However, the effect size ( $r = .144$ ) was not meaningful.

Lastly, the respondents were asked to indicate how important the skill categories—individual, collaborative, and procedural—were relative to each other. The ranks were 1 (most important), 2, and 3 (least important). Both groups reported a median of 2 for all three categories, indicating they were equally and moderately important. Also, there were no significant differences in ranks found.

In the final analysis, the student sample ranks for the importance of the various soft skills aligned with the human resource hiring managers sample. Lent et al.'s (1994) theoretical framework theorized that academic interests and career-related activity benefit skill development. This study's results speak to career-related activity. Even though the students have not yet earned a business bachelor's degree, they do recognize the importance of soft skills, likely from their workplace experiences. Furthermore, learning technical skills and knowledge from earning their four-year degree will also improve their skills.

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