Developing Employability Skills: A Case Study of Synchronous and Asynchronous Modalities

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Abstract

In today's workforce, soft skills such as communication and adaptability are increasingly critical for career success, yet many graduates lack these competencies. As online learning continues to expand, questions arise about its effectiveness in cultivating essential workplace skills. This mixed-methods case study examines how synchronous and asynchronous distance learning modalities support the development of soft skills, focusing on communication and adaptability. Drawing on data from two online courses, an asynchronous professional development course (n = 24 pre, n = 19 post) and a synchronous construction leadership course (n = 2), the study utilizes surveys, reflections, and assignments to assess student growth. Quantitative data analysis reveals moderate initial confidence in soft skills, with room for growth, particularly in self-reflection and time management. Thematic analysis of

qualitative data highlights the importance of structured reflection, real-world application, and feedback. Findings underscore the need for intentional instructional strategies, including guided self-assessment and practical communication activities, to bridge the gap between virtual learning and workforce readiness. Implications for faculty, instructional designers, and institutions are discussed, along with recommendations for future research.

Introduction

College graduates trying to enter the workforce are being rejected before starting their first professional jobs. A recent survey of hiring managers reported nearly 30% of executives do not want to hire Gen Z workers, citing a lack of soft skills that include communication, professionalism, and adaptability (Elting, 2024). In an era where technical expertise is abundant, it is not coding, finance, or engineering skills that are keeping graduates from securing jobs, it is their inability to collaborate, think critically, and communicate effectively. Employers are sounding the alarm: soft skills are no longer optional; they are the determining factor in career survival. As online learning becomes more prevalent, the question arises: can virtual education effectively develop the soft skills necessary for workforce success? This study explores how synchronous and asynchronous distance learning influence the development of communication and adaptability, two of the most critical yet overlooked skills in higher education. By analyzing student interactions and reflections, this research aims to uncover the best instructional strategies to bridge the gap between online education and real-world workforce expectations.

Literature Review

Soft skills have become a critical determinant of employability and career success in today's workforce, with industry leaders emphasizing the need for communication, adaptability, collaboration, and technical expertise (Jacks, 2024; Rosamilha & da

Silva, 2025). Industry human resource directors consistently report that while college graduates possess strong technical skills, they often lack the essential soft skills (such as communication, teamwork, and adaptability) needed to maintain long-term employment and career advancement (Anair, 2024; Carvalho & Vilaça, 2024; Chigbu & Umejesi, 2024).

Distance education has progressed significantly, with foundational scholars shaping the theoretical and practical frameworks that guide modern online learning (Tait, 2018). Wedemeyer (1971) is widely regarded as the father of modern distance education, advocating for independent study models that emphasize learner autonomy and flexibility. Moore (1973) expanded on this idea with his Transactional Distance Theory, which conceptualizes the role of dialogue, structure, and learner autonomy in distance education. Further theoretical advancements were made by Peters (1971), who likened distance education to an industrialized system, focusing on scalability and efficiency. Holmberg (2020) introduced the concept of Guided Didactic Conversation, highlighting the importance of engagement and interaction in enhancing student motivation in remote learning environments.

As distance education continued to advance, researchers sought to understand the social and cognitive dynamics of online learning. Garrison, Anderson, and Archer (2000) developed the Community of Inquiry (CoI) Framework, which underscores three critical components for effective online learning: cognitive presence (critical thinking), social presence (interaction and engagement), and teaching presence (instructional guidance). These foundational studies continue to inform best practices in both synchronous and asynchronous learning, shaping the landscape of distance education (Rosamilha & da Silva, 2025; **Means et al., 2014**)). While these frameworks have supported the development of cognitive, meta-cognitive, and social competencies, the assessment of soft

skills in online settings is relatively unexplored. While some studies have sought to measure soft skills, common definitions and the online environment can create unique challenges. There remains a critical distinction between the development of soft skills and the measurement of soft skills with a valid and reliable instrument in an online setting.

Research Questions

As soft skills become essential for workforce success, educators must consider how different online learning environments shape their development. This study explored the following research questions:

Research Question 1: How do synchronous and asynchronous distance learning modalities influence the development of soft skills such as communication and adaptability?

Research Question 2: What instructional strategies support the development of soft skill in virtual learning environments?

Methodology

This study a case study design (Yin, 2018) to explore the lived experiences of participants across distinct settings. A convergent mixed-methods approach (Creswell & Plano Clark, 2018) was used to examine how different online learning modalities (synchronous and asynchronous) support the development of soft skills, particularly communication and adaptability. Data collection included both quantitative self-report surveys and qualitative artifacts, such as weekly reflections and course assignments, to assess students' perceived growth over time. The study involved two distinct online courses: an **asynchronous professional development course** (n = 24) and a **synchronous construction leadership course** (*n* = 2). While the asynchronous course generated a sufficiently large sample for descriptive and inferential

statistical analysis, the synchronous course was treated as a **pilot using narrative analysis**, aimed at exploring the **experiences** of individual learners to inform future research with a larger sample. **D**ata from the synchronous course were analyzed as **individual narrative case vignettes**, focused on students' reflections regarding soft skill application, identity development, and leadership growth within real-world contexts. The use of **narrative analysis** in the synchronous pilot course enabled the researchers to deeply examine individual student experiences through reflective storytelling. This approach captured how learners made sense of professional identity, skill growth, and learning challenges over time. Together, these frameworks provide a robust foundation for analyzing how modality, instructional design, and learner reflection intersect to influence soft skill development in virtual higher education.

The theoretical foundation of this study integrates three complementary perspectives. First, the **Community of Inquiry (CoI) framework** (Garrison, Anderson, & Archer, 2000) provides a lens for understanding how online educational experiences are shaped by the interplay of **cognitive presence** (meaning-making), **social presence** (authentic engagement), and **teaching presence** (instructional design and facilitation). This model guided the interpretation of both learning environments, especially in relation to learner interaction and perceived professional growth. The study draws from **constructivist** (Vygotsky & Cole, 1978) and **experiential learning theory** (Kolb, 2014) which view learning as an active, situated process shaped by reflection, application, and the learner's agency. These theories informed the use of structured journaling, diagnostic self-assessments, and applied learning tasks to foster metacognitive development and soft skill acquisition.

Setting and Data Collection

In the asynchronous course, students completed a pretest and posttest to assess their self-perceived communication and adaptability skills. Additionally, they submitted weekly journal reflections, where they documented experiences applying soft skills in academic, professional, or personal settings. These reflections provided qualitative data to track how students perceived their own growth over time and identify skill development patterns. In the synchronous course, students completed a pretest and posttest measuring their self-perceived soft skills. Unlike the asynchronous course, these students engaged in weekly assignments centered on construction leadership theories. Each assignment required students to analyze how leadership theories could be applied in real-world scenarios, offering insight into their understanding and application of soft skills in professional contexts.

Data Analysis

Quantitative analysis was conducted for the asynchronous course (n = 24) using descriptive statistics to examine students' self-perceived soft skills in both pretest and posttest. Due to sample size constraints and non-normal distributions, non-parametric methods were prioritized where applicable. Descriptive statistics (means, medians, standard deviations, and modes) were calculated to identify baseline competencies and measure changes over time. A paired t-test was not used, as the primary intent was to establish developmental trends rather than to test hypotheses for generalization. In the synchronous course (n = 2), the sample size precluded formal statistical testing. Instead, data were analyzed through individual case summaries and thematic coding of student reflections to explore perceived growth in communication, adaptability, time management, and professional identity. This exploratory study aims to illuminate how students experience the development of soft skills, particularly communication and adaptability, within asynchronous and synchronous online learning environments. Rather than seeking generalizability, the study

focuses on surfacing detailed insights from student self-assessments and reflections. Qualitative data were drawn from weekly journal entries in the asynchronous course and structured assignments in the synchronous course. Thematic analysis was used to identify recurring patterns in students' descriptions of their strengths, growth areas, and evolving leadership competencies.

Several limitations should be acknowledged. The extremely small sample size in the synchronous course limits interpretability and transferability of findings from that context. Additionally, reliance on self-reported data introduces the possibility of response bias, as students may over- or underestimate their abilities. Structural differences between the two courses—such as the use of DiSC assessments and leadership theory activities in the asynchronous course—may have also influenced students' engagement and responses, potentially shaping their developmental trajectories differently across modalities.

Results

The results of the pretest survey provide insight into students' self-perceptions of their soft skills before participating in the course. Due to the difference in sample sizes between the two courses, quantitative analysis was conducted for the asynchronous course (n = 24). At the same time, descriptive summaries and qualitative insights were used for the synchronous course (n = 2). Table 1 presents a frequency distribution of Likert scale responses for the asynchronous course. These results indicate varying levels of confidence in communication and adaptability, with most students rating their skills as moderate to high but few selecting the highest level of agreement. Due to the small sample size for the synchronous course, pretest responses were analyzed on an individual basis. Instead of a frequency table, a narrative summary of each student's responses and qualitative reflections offer deeper insights into their skill development perceptions.

Asynchronous Pretest Results

The pretest survey for the asynchronous professional development course (*n* = 24) provided insights into students' self-perceptions of key soft skills, including communication, adaptability, time management, and professional growth. The findings indicate varying levels of self-assessed competencies, with notable gaps in self-reflection, independent skill development, and confidence in professional communication. While most students rated their skills as moderate to high (Likert scale ratings of 3 or 4), fewer respondents selected 5 (Strongly Agree) across most categories, suggesting room for growth and skill enhancement. Additionally, no students rated themselves at the lowest confidence levels (1 or 2) in adaptability and communication, implying a baseline level of perceived competency in these areas. Table 1 presents the distribution of responses across key survey items.

Table 1

Distribution of Responses in Pretest Survey (Likert Scale 1-5)

Survey Item	*f* (1)	*f* (2)	*f* (3)	*f* (4)	*f* (5)	*N*
Self-reflection on personal/professional growth	1	1	6	13	3	24
Confidence in time management (self-paced learning)	0	2	7	10	5	24
Identifying and addressing skill gaps	0	2	8	11	3	24
Communicating effectively in a professional setting	0	0	5	15	4	24
Adapting to new responsibilities and challenges	0	0	7	15	2	24

Note. *f* indicates the frequency of responses in each category. *N* represents the total number of respondents (*N* = 24).

As shown in Table 1, the pretest survey results highlight students' self-perceived strengths and areas for improvement in key soft skills. The data indicate moderate confidence levels across most skills, with a tendency for students to rate themselves at level 4 (Agree) rather than level 5 (Strongly Agree). This suggests that while students believe they possess foundational competencies, they may lack the confidence or experience to assess their skills at the highest level. Additionally, few students rated themselves at the lowest levels (1 or 2), indicating that most participants believe they have at least a baseline proficiency in these areas. In the next section, an additional analysis focused on means, standard deviation, and the most commonly selected responses for each soft skill category. To better understand these self-perceptions, Table 2 presents the mean, standard deviation, and most commonly selected responses for each soft skill category. These descriptive statistics help quantify the variability in student confidence levels across different skill areas.

Table 2

Asynchronous Pre-Test Survey Results – Self-Perceived Soft Skill Competencies in Virtual Learning

Survey Item	M	SD	Mode
Self-reflection on personal/professional growth	3.67	0.91	4
Confidence in time management (self-paced learning)	3.83	0.82	4
Identifying and addressing skill gaps	3.79	0.85	4
Communicating effectively in a professional setting	3.92	0.76	4
Adapting to new responsibilities and challenges	3.79	0.84	4

Note. This table presents pre-test survey responses on students' self-perceived soft skills, rated on a Likert scale from 1 (*Strongly*

Disagree) to 5 (*Strongly Agree*). Frequencies (*f*) indicate the number of students selecting each response option. These results establish a baseline for comparison with post-test data to assess skill development over time (N = 24).

Table 2 presents the mean scores, standard deviations, and most frequently selected responses for each key soft skill category in the asynchronous professional development course (N = 24). The results provide a more quantitative perspective on students' self-assessments, revealing moderate to high confidence levels across all measured competencies. The mean scores for all five skill areas range between 3.67 and 3.92, indicating that most students rated their abilities as either "Agree" (4) or "Moderate" (3) on the Likert scale. Communicating effectively in a professional setting had the highest mean (M = 3.92, SD = 0.76), suggesting that students generally feel more confident in their ability to communicate professionally compared to other soft skills. However, even in this category, the standard deviation suggests some variation in responses, indicating differing levels of perceived competency among students.

Time management (M = 3.83, SD = 0.82) and identifying and addressing skill gaps (M = 3.79, SD = 0.85) also received relatively high ratings, suggesting that students feel somewhat confident in managing their learning and recognizing their professional development needs. However, the standard deviation values indicate that some students may still struggle in these areas, warranting targeted support and structured interventions. Interestingly, self-reflection on personal/professional growth received the lowest mean score (M = 3.67, SD = 0.91), which aligns with prior research suggesting that students may not engage in reflective practices consistently without structured guidance. While most students rated themselves at level 4 ("Agree"), the higher standard deviation (0.91) compared to other categories suggests

greater variability in confidence levels regarding self-reflection. This highlights the need for explicit reflection prompts and feedback mechanisms to support students in evaluating their own growth effectively. Overall, the pretest survey results establish a baseline for comparison with post-test data, allowing for an assessment of skill development over the course duration. The findings suggest that while students enter the course with reasonable confidence in their soft skills, there is room for improvement, particularly in self-reflection and skill assessment. Future instructional strategies could focus on enhancing these areas through structured self-assessment activities, mentorship, and feedback mechanisms to help students gain a more accurate perception of their professional competencies.

Self-Reflection and Professional Growth

The results show a wide range of responses in self-reflection on personal and professional growth. While the majority of students (54%) selected 4 (Agree), only 13% strongly agreed (5) that they regularly engage in reflective practices. The presence of lower ratings (1 or 2) among a small subset of respondents suggests that some students struggle with structured self-assessment, a critical skill for lifelong professional development.

Confidence in Time Management

When asked about their ability to manage time effectively in a self-paced learning environment, only 21% of students strongly agreed (5), while 42% selected 4. Meanwhile, 8% of students rated themselves at 2, indicating a lack of confidence in their ability to regulate their learning schedules independently. This suggests that although many students feel somewhat capable of time management, some may benefit from structured guidance, productivity strategies, or time management training.

Identifying and Addressing Skill Gaps

The ability to recognize and address areas for improvement is a key factor in professional development. While 46% of respondents selected 4 (Agree), only 13% expressed strong confidence (5) in their ability to assess and improve their skills independently. Meanwhile, 33% of students rated themselves as neutral (3) and 8% rated themselves at 2 (Disagree), suggesting a lack of structured self-evaluation practices or difficulty identifying skill deficiencies without external feedback.

Communication in Professional Settings

Communication skills are a critical component of employability and workplace success. The majority of students (63%) rated themselves at 4 (Agree), while 17% strongly agreed (5) that they communicate effectively in professional contexts. However, 21% remained neutral (3), suggesting that some students may feel uncertain about their ability to engage in effective workplace communication. Notably, no students rated themselves at 1 or 2, indicating a general sense of competency in this area, albeit with room for refinement.

Adaptability to New Responsibilities and Challenges

Adaptability is crucial in a rapidly evolving workforce. In this category, 63% of respondents rated themselves at 4 (Agree), while only 8% expressed strong confidence (5) in their ability to handle unexpected challenges. A notable 29% of students rated themselves at 3 (Neutral), which may indicate uncertainty in their ability to manage unpredictable professional situations. Again, no students rated themselves at 1 or 2, suggesting that while adaptability is not perceived as a significant weakness, students may benefit from activities that promote resilience and flexible thinking. These results establish a baseline understanding of students' soft skill development and will serve as a reference point for evaluating the impact of instructional strategies throughout the course. The posttest survey results will provide insight into whether

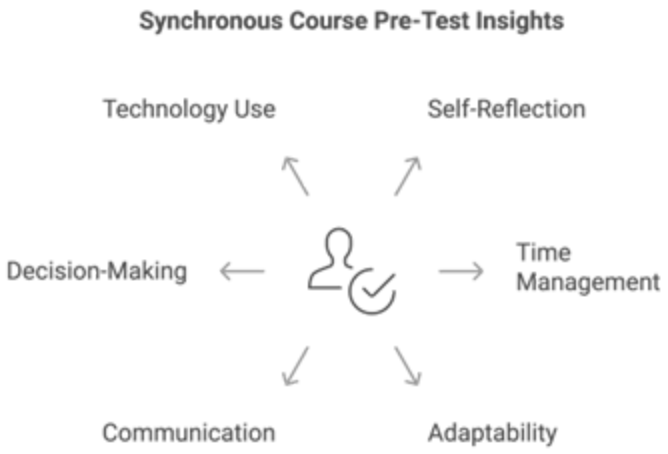
engagement in the asynchronous course improves students' self-perceptions of these critical workplace skills.

Synchronous Course Pre-Test Results

Due to the smaller sample size in the synchronous construction leadership course (*n* = 2), responses were analyzed through individual case summaries. The two students, referred to as "Alex" and "Jordan" (pseudonyms), provided insights into their perceived strengths, challenges, and areas for growth. Their reflections highlight key themes in self-assessment, time management, adaptability, communication, decision-making, and technology use as depicted in Figure 1 below.

Figure 1

Synchronous Course Pre-Test Insights



Self-Reflection & Time Management

Both Alex and Jordan demonstrated a strong inclination toward self-reflection. Alex stated, "I regularly reflect on my personal and professional growth," while Jordan emphasized that structured reflection has helped them refocus on long-term career goals. This suggests that both students recognize the value of continuous self-improvement and professional awareness. However, time management emerged as a challenge, particularly for Jordan, who noted, "With a heavy workload both in school and my current job, it is sometimes a challenge to work on professional development

while completing the necessary tasks for these responsibilities." This statement reflects the difficulties students face in balancing academic and professional responsibilities, an issue that could impact their ability to fully engage with course content.

Adaptability & Communication

Adaptability was another key area of discussion, with Alex sharing a compelling example of managing college while transitioning into a full-time construction job. "When I started college, I was not working. About a year after I started, I attained a full-time position in construction and continued college while managing both at the same time." This highlights the importance of resilience and the ability to navigate multiple commitments successfully. While both students displayed adaptability in professional settings, their responses indicated potential areas where additional support and strategies could enhance their ability to manage new challenges. Communication and confidence also emerged as areas for improvement. Jordan expressed a desire to strengthen professional communication skills, stating, "I hope to improve my communication skills in a professional setting as well as become more confident sharing ideas and making decisions." This aligns with industry demands for strong interpersonal and leadership skills, suggesting a need for targeted activities that build confidence in workplace communication.

Decision-Making & Technology Use

In terms of scenario-based decision-making, the students demonstrated different approaches to ambiguity. When asked how they would handle an assigned project with minimal instructions, Alex preferred to seek clarification from a supervisor, while Jordan opted to start working based on their understanding and seek feedback later. This contrast suggests varying levels of comfort in decision-making, highlighting an opportunity to incorporate exercises that reinforce problem-solving and workplace autonomy. Both students confirmed that they have access to the necessary

learning resources, but their use of technology differed. Jordan noted, "I complete my homework using multiple tools, including a laptop and mobile device, depending on availability." This indicates a flexible approach to learning but also underscores the need to ensure that all students have access to digital tools that facilitate effective participation in the course.

Overall, the pre-test responses from the synchronous course students provide valuable insights into their strengths and areas for growth. Their reflections reinforce the importance of self-reflection, adaptability, and communication in professional development while highlighting the challenges associated with time management and decision-making. These findings will serve as a foundation for assessing skill progression throughout the course.

Asynchronous Posttest Results

At the onset of the course, student self-assessments revealed a moderate level of confidence across key soft skills. As shown in **Figure 1**, pre-test feedback emphasized six core competencies: communication, adaptability, time management, self-reflection, decision-making, and technology use. Pre-course measures suggested that learners felt fairly competent in both communication (M = 3.92, SD = 0.76) and adaptability (M = 3.79, SD = 0.84). But, responses indicated wider variation in areas such as time management and self-reflection, domains closely tied to autonomous learning and self-regulation. These initial findings pointed to a need for more deliberate instructional supports directed at fostering metacognitive awareness, particularly in online CTE settings. By the conclusion of the course, students reported notable gains in all measured competencies. Post-assessment responses reflected increased self-confidence, particularly in communication, adaptability, and time management, where many participants chose the highest possible score (5 = Strongly Agree) on the Likert scale. Table 3 outlines the descriptive statistics for post-test outcomes:

Table 3

Asynchronous Descriptive Statistics for Post-Test Measures of Soft Skill Development (n = 19)

Soft Skill Area	Mean	Median	Std. Dev.	Min	Max
Communication	4.47	5.0	0.61	3.0	5.0
Adaptability	4.42	5.0	0.69	3.0	5.0
Time Management	4.47	5.0	0.77	3.0	5.0
Skill Improvement	4.32	4.0	0.58	3.0	5.0
Task Prioritization	4.42	5.0	0.77	3.0	5.0
Self-Reflection	3.63	4.0	0.60	2.0	4.0

Note. Data reflects student self-assessments on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The original participant pool included 24 students; however, the final post-test sample size was reduced to 19 due to course withdrawals.

The post-course profile indicates that students left the course feeling well-prepared in several transferable skill areas. High mean scores in communication, adaptability, and time management reflect strong learner confidence. While self-reflection earned the lowest average score (M = 3.63), its modest growth nonetheless suggests partial improvement and identifies an area for future instructional attention. Despite some standard deviation indicating individual variability, particularly in time management. Many participants rated themselves at the upper end of the scale, implying perceived growth and practical application of course concepts.

Qualitative responses reinforced the quantitative findings, offering deeper insight into students' perceived growth and engagement with course content. Several students highlighted the development of leadership identity and self-awareness. One participant reflected,

"I have gained a lot of insight to my preferred leadership styles... I intend to expand on this knowledge and further improve my leadership skills to be a more effective leader at work." This response illustrates the course's impact on leadership development and the transferability of learned skills to professional contexts. Another student emphasized the usefulness of the DiSC assessment as a tool for increasing self-understanding, noting, *"Learning more about my approach, motivators, and what is stressful to me has helped me become more aware of my habits... and how to use them best and/or change them to improve my skills."* Such reflections suggest that diagnostic tools enhanced students' ability to assess their own behavioral tendencies and adapt their professional strategies accordingly. Even when students described difficulty with the reflective process, they acknowledged its value. One respondent stated, *"It was somewhat challenging to reflect on some of the concepts and assessment feedback... but overall both were helpful and insightful to understanding myself and how I approach certain scenarios."* This comment highlights the developmental role of structured reflection, even when it demands significant cognitive and emotional effort. Overall, the qualitative data support the conclusion that structured reflection activities, personality assessments, and feedback mechanisms contributed to learners' metacognitive development. These strategies appear particularly effective in fostering self-awareness, adaptability, and leadership efficacy in online career and technical education (CTE) contexts.

Discussion

The results reveal notable differences in soft skill development between the asynchronous (n = 24 pre, n = 19 post) and synchronous course (n =2) formats. Researchers plan to continue data collection to increase the sample size in both modalities, but specifically in the synchronous classes. Data will be re-analyzed after two more semesters to strengthen results. In the

asynchronous course, students demonstrated measurable growth in communication, adaptability, and time management, with post-test mean scores exceeding 4.4 on a 5-point scale. Although self-reflection remained the lowest-rated area (*M* = 3.63), qualitative data indicated that structured reflection activities, such as journal prompts and the DiSC personality assessment, supported students' metacognitive development and leadership identity. These tools provided students with a framework to evaluate their personal growth and professional strategies, reinforcing the value of guided self-assessment in virtual learning environments. In contrast, the synchronous course, which included only two participants, yielded rich qualitative insights but lacked the structured instructional supports evident in the asynchronous course. Students in the synchronous setting expressed a strong inclination toward self-reflection and adaptability, particularly in balancing academic and professional responsibilities. However, both students identified challenges with time management and professional communication. Their reflections suggested that while synchronous interaction promoted self-awareness, the absence of formal tools for structured reflection may have limited the depth of their development in certain areas. Overall, the asynchronous course appeared more effective in integrating soft skill development through reflection, primarily due to the intentional use of assessment tools and reflective frameworks. The synchronous course facilitated meaningful engagement but would benefit from the inclusion of structured reflection strategies to more consistently support students' growth in communication, adaptability, and self-awareness. These findings highlight the importance of purposeful instructional design in virtual environments to foster transferable soft skills.

Findings from this study align with extant research on soft skill development, reinforcing the need for structured support to increase students' confidence (Cimatti, 2016; Cinque, 2016;

Goleman, 2005). Prior research reports that while students recognize the value of self-reflection, they may not engage in it regularly without structured prompts (Johns, 1995; Kolb, 2014). Students' confidence in their time management skills may reflect a broader tendency to overestimate their abilities (Voon et al., 2024), underscoring the importance of structured support systems that promote self-regulated learning and effective time management strategies. Findings support research indicating that students struggle with accurately assessing skill gaps (Kruger & Dunning, 1999), reinforcing the importance of structured feedback and mentorship. Results on professional communication align with literature suggesting that while students perceive themselves as competent, applied workplace scenarios can further strengthen their abilities. Findings on adaptability support existing research on the importance in workplace settings, though students may need exposure to real-world challenges to build confidence in applying new knowledge in the workplace. Unlike some studies that suggest students naturally develop competencies over time, this study indicates that targeted interventions are necessary to improve self-efficacy and workplace readiness.

Implications for Practice

The findings from this study highlight several key implications for educators, instructional designers, and institution administrators seeking to enhance students' soft skills in a self-paced learning environment.

Implications for Faculty and Instructional Designers

Given the varied responses in self-reflection on personal and professional growth, incorporating structured self-assessment tools, reflective journaling, or guided discussions could help students develop deeper awareness of their strengths and areas for improvement. Embedding exercises that help students identify and address their own professional development needs (such as

formative assessments, peer feedback opportunities, and targeted skill-building activities) could encourage a more proactive approach to self-directed learning. While students generally expressed confidence in professional communication, some remained neutral in their self-assessments, suggesting that practical exercises such as role-playing, simulated workplace interactions, and industry-specific communication training could increase readiness for real-world professional settings. Similarly, promoting self-directed learning through experiential learning, problem-based learning, case studies may help students develop flexible thinking to navigate unexpected workplace challenges beyond what can be learned in a textbook alone.

Implications for Institutions

Since confidence in time management was not universally strong, institutions could provide targeted training on self-regulation strategies, time management techniques, and productivity tools tailored to self-paced learning. To bridge the gap between students' self-perceptions and workplace expectations, institutions should consider collaborating with industry professionals to provide real-world insights, mentorship, and feedback on skill application. Perhaps providing stipends for industry professionals to be guest speakers, assigned mentors in a mentorship program, or serving as a panelist to give feedback on student presentations or skill demonstrations.

Recommendations for Future Research

Given the small sample size for this study, it would be a good idea to continue data collection. Building on this same study with a larger sample size would strengthen the generalizability of these findings and provide a more comprehensive understanding of students' soft skill development across diverse populations. Future research should explore the impact of different learning modalities on soft

skill development, comparing asynchronous, synchronous, and hybrid learning environments to determine which format most effectively enhances students' self-confidence and competency. Additionally, implementing targeted interventions—such as structured mentorship programs, guided self-reflection activities, or interactive time management training, could provide deeper insights into which strategies lead to the most significant improvements in students' soft skills. Beyond self-reported confidence, future studies should also incorporate employer or supervisor assessments to validate whether students' perceived competencies align with their actual workplace performance. Furthermore, examining post-graduation career outcomes could help determine how soft-skill development during coursework translates into career readiness, job market success, and long-term professional growth.

It is also worth noting that future research could benefit from a clearer, shared definition of "soft skills" across industry and academic sectors. Establishing common terminology and frameworks would support the development of more valid and reliable instruments for assessing soft skill growth. Finally, building on Ryan Craig's (2023) call for a national expansion of "earn and learn" programs, future studies should examine how online learning, particularly asynchronous modalities can integrate apprenticeship-style models that offer real-world skill application. Craig argues that apprenticeships should no longer be confined to trades, but should expand into technology, healthcare, business, and other fields where hands-on learning is essential. Embedding such experiences into virtual programs could provide students with more direct pathways to employment while reinforcing the development of communication, adaptability, and other critical workplace skills.

Conclusion

In conclusion, the pretest survey results provide a comprehensive baseline of students' self-perceived competencies in key soft skills,

highlighting areas of strength as well as opportunities for development. While most students express moderate confidence in their abilities, the data suggest that many have yet to reach a level of strong self-assurance, particularly in self-reflection, time management, and identifying skill gaps. The findings indicate that while students generally perceive themselves as proficient in communication and adaptability, there remains room for growth in fully internalizing and applying these skills with confidence. These insights will guide instructional strategies aimed at enhancing students' self-efficacy and practical application of soft skills throughout the course. The forthcoming posttest survey will provide a comparative analysis to assess the effectiveness of these interventions and measure students' progress in developing essential workplace competencies.

References

Anair, M. (2024). *Reimagining non-credit higher education: The impact of non-credit short-term accelerated postsecondary workforce training at Santa Fe Community College* (Doctoral dissertation). *ProQuest DissertationsPublishing*.**https://search.proquest.com/openview/11665e86bbd142f74a0cfda8cb33d56b/1?pq-origsite=gscholar&cbl=18750&diss=y**

Carvalho, G. S., & Vilaça, T. (2024). *Health promotion in schools, universities, workplaces, and communities. Frontiers in Public Health, 12*, Article 1528206. **https://doi.org/10.3389/fpubh.2024.1528206**

Chigbu, B. I., & Umejesi, I. (2024). *Synchronous online learning and career readiness in higher education: Student perceptions, challenges, and solutions.Frontiers in Education, 9*, Article 1449363. **https://doi.org/10.3389/feduc.2024.1449363**

Cimatti, B. (2016). Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. International Journal for quality research, 10(1), 97.

Craig, R. (2023). *Apprentice Nation: How the "Earn and Learn" Alternative to Higher Education Will Create a Stronger and Fairer America*. BenBella Books.

Creswell, J. W., & Plano Clark, V. L. (2018). Designing and conducting mixed methods research (3rd ed.). SAGE Publications.

Elting, L. (2024, December 23). Managers don't want to hire Gen Z workers, citing a lack of soft skills, survey says. Forbes. **https://www.forbes.com/sites/lizelting/2024/12/23/managers-dont-want-to-hire-gen-z-workers-citing-a-lack-of-soft-skills-survey-says/**

Garrison, D. R. (2000). Text-based environment: Computer conferencing in higher education. *Internet Higher Educ.*, *2*(2), 87-105.

Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. The internet and higher education, 2(2-3), 87-105.

Goleman, D. (2005). Emotional intelligence: Why it can matter more than IQ. Bantam.

Holmberg, B. (2020). Guided didactic conversation in distance education. In Distance education (pp. 114-122). Routledge.

Jacks, W. (2024). *Identifying the skill gap faced by employers among fresh graduates in the UK.* PD Publishers. **https://pdpublishers.com/wp-content/uploads/2024/11/identifying-the-skill-gap-faced-by-employers-among-fresh-graduates-in-the-uk-1.pdf**

Johns, C. (1995). Framing learning through reflection within Carper's fundamental ways of knowing in nursing. Journal of advanced nursing, 22(2), 226-234.

Kolb, D. A. (2014). Experiential learning: Experience as the source of learning and development. FT press.

Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. Journal of personality and social psychology, 77(6), 1121.

Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teachers college record*, *115*(3), 1-47.

Moore, M. G. (1973). Toward a Theory of Independent Learning and Teaching. The Journal of Higher Education, 44(9), 661–679. **https://doi.org/10.1080/00221546.1973.11776906**

Peters, O. (1971). Theoretical aspects of correspondence instruction. McKenzie y Christensen. The changing world of correspondence study. Pennsylvania State University Press.

Rosamilha, N. J., & da Silva, L. F. (2025). The project manager of tomorrow: Knowledge and competencies for a globalized and digital future. In Project Management for European, Asian, and Latin American Markets.
Springer. **https://link.springer.com/chapter/10.1007/978-3-031-77806-3_4**

Tait, A. (2018). *Open universities: The next phase. Asian Association of Open Universities Journal, 13*(1), 13-23. **https://doi.org/10.1108/AAOUJ-12-2017-0040**

Voon, J. P., Yeung, W. L. V., & Chan, S. N. (2024). Does Managerial Overconfidence Change with Market Conditions? Risk Management

for Financial Institutions. *Journal of Risk and Financial Management*, *17*(8), 313.

Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Harvard university press.

Wedemeyer, C. A. (1971). Independent study: Teaching at a distance. Athabasca University Press.

Yin, R. K. (2018). Case study research and applications: Design and methods (6th ed.). SAGE Publications.