



Employability Skills Exchange

News from the NSN Network | Issue 1: 2020

Greetings from the NSN Community

A Welcome from NSN Network's PI, Hope Cotner

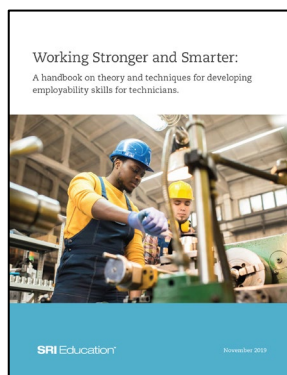
Welcome to the first issue of *Employability Skills Exchange*, the newsletter of the Necessary Skills Now Network's community of practice. The NSN Network is comprised of educators, employers, and researchers who want to share ideas, strategies, and resources to improve the employability skills of entry-level STEM technicians. Funded by the National Science Foundation's Advanced Technological Education program, the Network aims to provide environments for employer-educator communication, resource sharing, professional development, and cross-discipline collaboration. The Exchange will help keep the community informed of resources, research, and employer perspectives as well as professional development opportunities for community/technical college faculty.

If you haven't visited the NSN Network website, make plans to **spend some time exploring** at www.necessaryskillsnow.org. Learn about employability skills [frameworks](#) or peruse our collection of instructional [resources](#). Listen to a recent [webinar](#) or consider taking a course or hosting a [workshop](#). Have you created a resource you'd like to share with the NSN Community? Simply complete our Resource Exchange [form](#) and the NSN team will be in touch. And speaking of our team, check out the great [group](#) of folks collaborating to bring you Network activities, and reach out to us.

If you're attending the League for Innovation in the Community College's **Innovations Conference** in Seattle, stop by Dr. Marilyn Barger's NSN session on Tuesday, **March 4 at 2:15 pm**. And...watch your email for upcoming professional development opportunities like our facilitator-led online course and webinars featuring community members.

New Resource Spotlight

Q&A with Louise Yarnall and Julie Remold, Researchers/Developers of Working Stronger and Smarter: A handbook on theory and techniques for developing employability skills for technicians



1. Why did you create this handbook?

We realized that helping students and employees improve their employability skills can seem like a good idea, but also a vague one. We set out to see what methods for developing these skills were being

used in STEM technical fields. To do so, we reviewed research and interviewed both instructors and employers who work with early career technicians in two very different areas: Information Technology and Advanced Manufacturing. Through gathering this information, we learned from experts about how employability skills are measured and developed. We wanted to present the findings in a concrete way that both educators and employers could use. We created the handbook as an "idea book" that spotlights learning principles, resources, and examples of how to develop employability skills.

2. What issues are shaping the current demand for employability skills among technicians?

We found three main trends in the technician fields: retirements, rapid technological change, and lower job security. We'll briefly explain how those trends relate to the demand for employability skills. First, retirements are causing labor shortages, particularly in manufacturing, which is driving employers to recruit

workers from more diverse communities, putting a premium on skills of communication and teamwork. Second, rapid changes in technology drive a need for all workers to embrace the employability mindset of lifelong learning. Technology changes also raise the importance of communicating, particularly as new technologies increase reliance on virtual teams that cross cultural and geographic lines. Finally, lower job security, which is associated with automation and rising global workforce competition, has increased the importance of communicating well about workplace expectations and understanding the larger mission of the business where technicians work. This sort of information can help workers take a proactive approach to sustaining their careers.

3. What were the biggest concerns you heard from employers during your research interviews?

We heard a lot about “millennials” from employers. They expressed concern that their traditional ways of onboarding new technician employees didn’t work well with this younger generation workers. We noticed some differences between the two fields we studied, information technology (IT) and advanced manufacturing. The concerns from IT employers focused on problems around communication that reflected both technical confidence and interpersonal sensitivity. Advanced manufacturing employers often discussed ways to ensure that workers would come to work punctually and consistently and communicate openly when they were going to be late or missing.

4. Which employability skills did you identify that matter the most for technicians?

We narrowed it down to five “essential” skills that we organized under three main headings. First, there’s the capacity to build relationships, which includes interpersonal skills and communication skills. Second, there are the personal qualities for career success, which include cultivating a positive orientation to lifelong learning and a proactive approach to meeting workplace expectations. Third, there is knowledge about business fundamentals, which includes knowing how the business where you work (or want to work) serves society, and how your work affects other departments, functions, and teams in the workplace. We also found that all five of these skills may be tailored to support better interactions and results in diverse workplaces.

5. Which learning principles and instructional practices can educators use to help their students develop employability skills?

We focused on five key learning principles, derived from the field of learning sciences, that technician educators and managers in the workplace can use. Coaching begins with *confronting the misconceptions* that still widely exist about technician work and *explaining* what employability skills are and why they’re important. There still are many who believe that technicians can succeed on technical knowledge and skill alone, and that technician fields are good for those who feel they lack key employability skills such as communication and interpersonal skills. Learning activities aimed at confronting this misconception, such as a visit from an industry partner to the classroom, can correct these misunderstandings, and also underscore that, through practice, it is possible to learn these skills. From there, we found that engaging learners in team projects offers a necessary—but not sufficient—framework for learning employability skills. To ensure team activities support development of employability skills, instructors need to frame such activities as opportunities to *practice* these skills and then provide *support* for candid communication and feedback, opportunities for learners to *play* different roles on a team, and regularly *reflect* on what has worked and what has been learned. These same principles work for improving skills and knowledge to work with diverse teams. However, coaching those skills sometimes requires more up-front discussion about misconceptions, personal reflection, explanation, and play since succeeding on diverse teams often begins with understanding your own blind spots and unconscious biases.

6. What continuous learning efforts will be necessary for employers to offer or support around these skill sets in the coming years?

We found that technician employers realized they needed to focus not only on internal methods, such as helping managers model these skills and coach employees in how to develop them, but also to consider the world outside their workplace. They need to offer services that help their employees cope with structural and systemic challenges that can limit success. Because dependability and reliability are essential to success in a new field, many early career-technicians, particularly those with low incomes, benefit from supports such as

backup services for transportation, childcare, and supports to help employees manage stress and financial pressure. We found that in some cases, these kinds of supports were offered through community colleges to help ensure student success in internships and as they transitioned to the workplace. Finally, employers also realized that they needed to play a bigger role in helping their education partners shape programs, curriculum, and work-based learning opportunities to develop these skills among both future and current (incumbent) workers. The evidence is clear that it takes years to develop and refine these skills. It is a good idea for employers to participate in the solution.

- **Download *Working Stronger and Smarter Handbook***
- **Explore related resources from SRI at employabilityskills.org**

About the Handbook Authors:



Louise Yarnall is a senior researcher at SRI Education in Menlo Park, CA. She is a postsecondary expert who studies and develops a variety of tools and services to improve workforce readiness.

Julie Remold is an expert in program evaluation, qualitative research, and learning in out-of-school settings. While this work was underway, she was a senior researcher at SRI Education. She works for Stanford University.



Exchange "Extra"

Looking for short videos on employability skills to share with your students? Check out the Goodwill Community Foundation's YouTube [Channel](#) for a large collection of concise tutorials on a wide range of work-readiness topics.



Host an NSN Network Workshop!

Designed for community college faculty and administrators, NSN workshops cover the following topics but can be customized to the needs of your institution or department.

- Understanding employer perspectives on in-demand employability skills
- Embedding employability skills into existing technical courses
- Developing scenarios to set the stage
- Creating student activities that model essential workplace skills
- Exploring assessment strategies and teaching resources

To contact us about hosting a FREE workshop at your college, complete a [request form](#) today!

The NSN Network is a project of the Center for Occupational Research and Development ([CORD](#)) and its partners listed below. This newsletter is based upon work supported by the National Science Foundation under DUE #1801096. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

