



## A FRAMEWORK TO ENHANCE GRADUATE EMPLOYABILITY

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### ABSTRACT

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Aim/Purpose	Alignment of academic curricula and employer needs is widely discussed yet implementation lags. Research on EdD curricula has universality for other academic programs and may catalyze pedagogical innovation to promote employability in other disciplines.
Background	This study contributes evidence-based data to strengthen career relevance of academic programs, align curriculum content with industry requirements, prepare students for the workforce, and improve job placement rates, defined as degree-related employment.

Accepting Editor Ana Paula Alves | Received: December 22, 2022 | Revised: February 6, February 9, February 28, 2023 | Accepted: March 3, 2023.

Cite as: Underdahl, L., Akojie, P., Magabo, M. A., Reed, R. R., Haynes, S., Marzano, M., Navarro, M., & Patterson, M. S. (2023). A framework to enhance graduate employability. *International Journal of Doctoral Studies*, 18, 55-75. <https://doi.org/10.28945/5090>

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Methodology	In this mixed method study, current Doctor of Education (EdD) students and employers of Doctor of Education (EdD) graduates commented on the alignment of the EdD curriculum with industry-specific needs.
Contribution	Results may promote corporate and academic partnership to optimize alignment of curricula and industry needs.
Findings	Partnerships between educators and employers in developing curricula can bridge the industry specific skills gap and enhance students' understanding of the professional workplace and capacity to communicate, be empathetic, and solve problems.
Recommendations for Practitioners	Educators can strengthen capacity for the adaptability and continuous learning associated with mastering new skills as technology evolves. Employers can provide skilling, reskilling, and upskilling opportunities, offer job shadowing and internships, and participate in collaborative research.
Recommendations for Researchers	Researchers can develop pedagogy targeting interpersonal, communication, participative, and organizational competencies.
Impact on Society	Improving graduate employability creates positive outcomes for graduates, educators, employers, and the global economy.
Future Research	Perceived employability is a powerful motivator. Research is needed to reframe curricula to synthesize discipline-specific skills with generic skills, such as teamwork, communication, and critical thinking, that enhance students' self-confidence and self-perceptions of employability
Keywords	graduate employability, career competence, curriculum, employer

## INTRODUCTION

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Universities should not only be focusing on offering educational programs that ensure work-ready graduates, but must also be developing *future-ready* graduates. Higher education systems both in the developed and developing world will need to be reimaged to meet the demands of complex, dynamic, and continuously evolving labour markets.

Mainga et al., 2022, p. 100

Fostering the development of adult learner competence to thrive in an ever-changing world is a persistent global challenge and strategic concern for college and university administrators, higher education professionals, curriculum developers, employers, and policymakers concerned with academic curricula and human resource development (Healy et al., 2022; Mainga et al., 2022; Monteiro et al., 2022; Morris, 2019). Career success depends on integrating discipline-specific knowledge and practice-based soft skills, including critical thinking, teamwork, communication, creativity, willingness to learn, and lifelong proactive learning (Aasheim et al., 2009; Collins, 2022; Mainga et al., 2022; Monteiro et al., 2020; Sahin & Celikkan, 2020; Succi & Canovi, 2020). Research validates the synthesis of academic content with experiential learning to promote both “perceived employability” (Byrne, 2022; Healy et al., 2022; Mainga et al., 2022) and graduates’ capacity for successful university-to-work transition (Monteiro et al., 2022; Sahin & Celikkan, 2020; Wolff & Booth, 2017).

In the United States, doctoral programs in medicine, law, philosophy, and theology emerged in late 1800s, followed by an education doctorate, the EdD. This professional doctorate was designed for professional part-time students and focused on praxis, defined as academic theory in professional practice (Becton et al., 2020). The Carnegie Project on the Education Doctorate (CPED) redesigned

content to meet professional practitioner needs by exploring work-based problems (Buss, 2018). EdD curricula focus on discipline-specific content such as “Legal Context of Education,” “Economics of Education,” “Curriculum, Developmental, and Learning Theories,” “Curriculum Design,” “Instructional Models,” “Integrating Technology and Curriculum,” and “Instructional Media and Design Techniques.” Graduates become subject matter experts but lack career competencies requisite to career readiness and successful university to work transition (National Association of Colleges and Employers [NACE], 2022a, 2022b):

- Career and Self-Development
- Communication
- Critical Thinking
- Equity & Inclusion
- Leadership
- Professionalism
- Teamwork
- Technology

Employers look to educators to help meet industry needs, while educators believe employers should “get involved” (Cheng et al., 2018). Less than 50% of graduates see themselves as adequately prepared for entry-level positions (Barton et al., 2013). Existing workforce strategies lack cohesiveness (Carnevale et al., 2015) and are “fragmented across silos” (Cheng et al., 2018, p. 2). The solution? A study of 100 education-to-employment initiatives in 25 countries including 8,000 young people, employers, and educators identified factors “to break down silos” (Cheng et al., 2018, p. 5): “Educators and employers actively step into one another’s worlds. Employers might help to design curricula and offer their employees as faculty, for example, while education providers may have students spend half their time on a job site and secure them hiring guarantees” (Barton et al., 2013, p. 20).

Academic leaders are urged to integrate hard and soft skills related to actual “doing” in higher education curricula to close gaps between graduate competencies and employer expectations (Collins, 2022; David et al., 2021; Mainga et al., 2022; Mitchell et al., 2021; NACE, 2022b). The National Association of Colleges and Employers (NACE) identified eight career readiness competencies requisite to successful university-to-work transition (NACE, 2022b):

1. Technology
2. Equity & Inclusion
3. Teamwork
4. Critical Thinking
5. Communication
6. Professionalism
7. Career & Self-development
8. Leadership

Harvard University’s president delineated a formula for success in an unpredictable world:

Technology is disrupting so many traditional assumptions, employment options, economic foundations that we don’t know what kind of jobs students are going to have a decade from now. People need to have the skills and adaptability that will make them flexible enough to be successful in a work that we can’t predict. So what are those kinds of skills? Imagination. Insight. Perspective. (Nagy, 2014, p. 40)

This study contributes to the existing literature by providing actionable data to reimagine graduate employability by eliminating stakeholder silos. For this research, stakeholders are defined as educators, students/graduates/employees, and employers. Study results may catalyze closer collaboration between educators and employers to enhance graduate employability.

## LITERATURE REVIEW

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Misalignment of higher education institutional curricula with employer needs may result in graduates who are insufficiently prepared to fulfill professional practice expectations (Abelha et al., 2020; Alam et al., 2022; Bear & Skorton, 2019; Bierema, 2019; Byars-Winston et al., 2011; Herbert et al., 2020; Mainga et al., 2022; Otache, 2022; Sahin & Celikkan, 2020; Small et al., 2022; Vitale et al., 2020).

Employer surveys consistently indicate workplace success requires more than disciplinary knowledge and skills; “soft skills” are non-negotiable irrespective of field, level of education, or level of work (Wolff & Booth, 2017, p. 52). A McKinsey survey of 8,000 young people, employers, and educators in nine countries found less than 50% of employers described recent graduates as “adequately prepared for entry-level positions” while 72% of educators depicted graduates as “work-ready,” leading the survey authors to suggest the two sectors increasingly “live in parallel universes” (Barton et al., 2013, p. 18). The 2015 Gallup-Purdue Index, based on a nationally representative study of 95,000 U.S. college graduates with a bachelor’s degree or higher and Internet access (Seymour, 2015), indicated that only 11% of industry leaders rated graduates as competent for workplace success, although 98% of university leaders rated their institutions as “effective” (Wolff & Booth, 2017, p. 52) in delivering career-relevant education (Llopis, 2022). The 2022 Career Optimism Index (Edelman, 2022) indicated that over 66% of employers have little to no interaction with educators, resulting in a gap that creates graduates who are not prepared for workplace success.

Factors contributing to misalignment between academic curricula and employment requirements may include failure of curriculum development specialists to keep pace with technology and data management innovation, paucity of pedagogical approaches to active learning (Mainga et al., 2022) and “learning-to-learn by doing” (Abey Siriwardhane & Lützhöft, 2021, p. 31), inadequate immersion in workplace-specific activities (Monteiro et al., 2020), and suboptimal integration of career services with academic programs to match applications with career opportunities (Healy et al., 2022). Bierema (2019) advocated designing T-shaped curricula to enhance employability, incorporating situated, experiential, active learning pedagogy. Transitioning to a T-shaped curriculum could replace fragmented, discipline-centric, reductionist current learning systems with cross-disciplinary approaches predicated on systems thinking (Bertalanffy, 1950, 1972; Bierema, 2019).

The National Association of Colleges and Employers 2022 Job Outlook Survey included employer data from total 157 organizations and reaffirmed the “disconnect between what students think they have to offer and what employers see” (NACE, 2022b, para. 5). To better serve students, educators are integrating career readiness competencies into both curriculum and career services to reframe student perceptions of the college experience (NACE, 2022b, para. 7). On a global scale, initiatives to reimagine graduate employability offer innovative partnerships between educators and employers.

In Australia, Small et al. (2022) reviewed foundational higher education policies, compared university graduate demographics from 1989 to 2019, and provided a point of reference on graduate employability before and after the COVID-19 pandemic for educator, employer, and policymaker stakeholders in the higher education sector. In the Bahamas, Mainga et al. (2022) identified the four most essential employability skills for recruitment to entry-level positions: communication skills, learning skills, positive attitudes and behaviors, and problem-solving skills. Their research validated consequences of failure to demonstrate soft skills (e.g., dismissal from work). In Bangladesh, Alam et al. (2022) elaborated on graduate employability in the context of Sustainable Development Goals, identified obstacles sabotaging university graduates’ capacity to develop requisite soft skills, and validated the effectiveness of educator, employer, and government collaboration in launching skill development opportunities.

In Malaysia, Fadhil et al. (2021) investigated disparities between employer expectations for graduates with communication skills, teamwork, learnability, motivation, attitude, and integrity, and actual graduate competencies. Unemployment data confirm discipline-specific competencies acquired through

formal education fail to fulfill employer expectations for graduates with aptitude for learning, flexibility, and adaptability. In Nigeria, Otache (2022) advocated partnership between polytechnics, industry, regulatory bodies, and government to enhance graduate employability. In the United Kingdom, Byrne (2022) analyzed graduate employability through the lens of employer rating criteria, including study abroad, work experience, age, degree type, disability, and ethnicity. In Vietnam, Tran et al. (2022) linked continuous self-learning, resilience, and adaptability to context situatedness and enhanced employability and career growth in regional areas.

While existing literature reflects a quest for best practices in optimizing transition from classroom to workplace for graduates at all levels, empirical descriptions of the experiences of EdD students and employers of EdD graduates are rare (Monteiro et al., 2020, p. 4). Research on fourth year business students (Mainga et al., 2022), students in the final year of master programs at a public university in Portugal (García-Aracil et al., 2021), eleven Higher Education graduates (Monteiro et al., 2020), and other generic graduates validates developing practical experiences during graduate study to increase awareness of career pathways and strengthen self-efficacy (Collins, 2022; Gray, 2022; Monteiro et al., 2020; NACE, 2022a; Succi & Canovi, 2020).

Knowledge obsolescence, uncertainty, and an unknown future are persistent challenges facing educators, employers, and policymakers. Research suggests communication skills, teamwork, and aptitude for lifelong learning are the most highly valued skills in the 21<sup>st</sup> century workplace (Abelha et al., 2020; Barton et al., 2013; Fadhil et al., 2021; Suarta et al., 2017). Employability may be predicated upon demonstrated proficiency in people skills such as teamwork, communication, and critical thinking; cross-cultural sensitivity; problem-solving abilities adaptability, creativity, and resilience; and professional strengths such as continuous self-learning, work ethic, and habits of lifelong learning (Alam et al., 2022; Otache, 2022; Tran et al., 2022).

## THEORETICAL FRAMEWORK

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Bandura's integration of self-efficacy into social cognitive theory (Bandura, 1977; Bandura et al., 2001) and social cognitive career theory (Betz & Hackett, 1981; Healy et al., 2022; Lent et al., 2000) guided this study. Social cognitive career theory (SCCT) is a framework predicated on assumptions about the capacity of individuals to influence their development (Lent et al., 2000). SCCT clarifies the transition to work processes by focusing on relationships between self-efficacy, outcome expectations, and goals. The higher an individual's perceived efficacy to fulfill educational requirements and occupational roles, the better their persistence will be through education and the greater their persistence will be in following their career (Bandura et al., 2001). SCCT applies to career-relevant attitudes, including job search intentions, career choice, task performance and persistence, interview readiness, performance, and employment outcomes, and may help understand student perceptions of career competencies (Healy et al., 2022; Monteiro et al., 2020). SCCT's robust research on how people make career decisions, learn from career-related experiences, develop confidence, and adopt proactive career behaviors provides a conceptual framework for graduate employability in the context of the EdD (Healy et al., 2022).

Linking Bandura's self-efficacy findings to graduate employability, García-Aracil et al. (2021) pioneered the exploration of students' *perceptions of preparedness* for transition to work after graduation. Students' assessment of skills, knowledge, and abilities strengthened through academic activities indicated that active engagement in lectures and collaborative development of career-related projects involving teamwork, communication, and critical thinking positively influenced their perceptions of work-readiness (Allen & van der Velden, 2012; García-Aracil & van der Velden, 2008). Existing studies confirm that everything students do during their time at university will impact their self-esteem; further, through development of robust global self-esteem, they will be more successful in whatever they do after graduation, including employability. This means that not only the set of competencies developed but also the *perception* of mastering such competencies is important (Dacre Poole & Sewell, 2007, as cited in García-Aracil et al., 2021, p. 52; Healy et al., 2022; Mainga et al., 2022). High levels

of self-efficacy are associated with successful job search outcomes, reemployment, resilience, and ability to cope (Byrne, 2022; Eden & Aviram, 1993; Monteiro et al., 2022; Pham, 2022; Pinguart et al., 2003; Saks, 1995; Succi & Canovi, 2020; Tran et al., 2022); Zikic & Saks 2009, as cited in García-Aracil et al., 2021, p. 52). Higher education institutions have considered reframing curricula to integrate mechanisms to complement the development of discipline-specific skills with generic skills, such as teamwork, communication, and critical thinking, that enhance students' self-confidence and self-perceptions of employability (Collins, 2022; García-Aracil et al., 2021; Gray, 2022; NACE, 2022b).

## METHOD

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In this mixed method study, current Doctor of Education (EdD) students and employers of Doctor of Education (EdD) graduates commented on the alignment of the EdD curriculum with industry-specific needs. Mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research (Creswell & Plano Clark, 2018). The quantitative section of the survey instrument expedited data collection (Ambler et al., 2021; Jeong et al., 2023); qualitative methods are appropriate for research describing people's subjective opinions, attitudes, beliefs, or experiences of things in the outer world (Percy et al., 2015), hence the decision to include free text qualitative questions.

The study used a sequential explanatory strategy, with quantitative correlation as the primary method/design and qualitative/explanatory case study as the secondary method/design. The survey instrument was based on the National Science Foundation's (2017) Early Career Doctorates Survey Questionnaire for a web-based survey, complemented by field-tested qualitative components. The survey questionnaire comprised four rating scale questions and two open-ended questions. Quantitative data correlated program curriculum and upper-level job requirements in higher education; qualitative data provided participant narratives. The study population for EdD students and employers of EdD graduates constituted a convenience sample for the research team; the survey was emailed to all current EdD students who met the inclusion criteria. De-identified employer data were provided from the career services representatives; the survey was emailed to all employers of EdD graduates who met the inclusion criteria. After earning Institutional Review Board approval, the following was done:

- A 6-item web-based questionnaire with scale rating and open-ended questions was emailed to 97 current EdD students at a university in the southwestern United States who met the study selection criteria. Inclusion criteria included currently active (defined as posted to the classroom within the last 365 days) students in the EdD program who completed their first eight courses with a B- or better (indicating good academic standing rather than probationary status). Data were collected between August 6, 2021, and September 6, 2021; data analysis included the 11 completed responses.
- A 6-item web-based questionnaire with scale rating and open-ended questions was emailed to 52 employers of EdD graduates who had completed the program between April 9, 2018 and January 6, 2021 at a university in the southwestern United States. Data were collected between May 23, 2022 and July 23, 2022; data analysis included the 36 completed responses.

## RESULTS

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Data collected from EdD student responses are summarized in Table 1 and Table 2.

**Table 1. Current EdD Students – Quantitative Responses**

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
1	To what extent do you agree or disagree that EdD curricula strengthen problem-solving abilities, defined as critical thinking, creativity, and adaptability?	9%			73%	18%
2	To what extent do you agree or disagree that EdD curricula promote professional strength, defined as communication, work ethic, and habits of lifelong learning?	9%			64%	27%
3	To what extent do you agree or disagree that EdD curricula include opportunities to integrate and apply knowledge to the workplace or work-based problems and settings, such as with applied projects, team-based problem-solving or entrepreneurial experiments, internships, community-based learning, simulations, and other direct application learning opportunities?	9%		9%	64%	18%
4	To what extent do you agree or disagree that your doctoral coursework has prepared you for your desired career?	9%	18%	18%	37%	18%

**Table 2. Current EdD Students – Qualitative Responses**

		<b>Themes</b>
5	How could the EdD curriculum be improved to better prepare graduates for employability?	<ul style="list-style-type: none"> <li>▪ Experiential learning and internships</li> <li>▪ Career development training</li> </ul>
6	How could universities better prepare their EdD students with the knowledge and skills needed in their professional career?	

Current EdD students indicated three career preferences: curriculum development, faculty, and higher education administration.

Themes were extracted from responses to the two open-ended questions. Respondent comments supporting themes are presented as follows:

Theme	Respondent Comments
Experiential learning and internships	<p>Provide more experiential learning</p> <p>Maybe offering an internship to prospective graduates within their organization may increase the graduate's chances of employability with that organization of a similar organization</p> <p>More opportunities to work with people in their professions while in school</p> <p>More real-world projects</p> <p>Make the program applicable to our lives by providing the practical skills needed for the workplace.</p>
Career development training	<p>Help scholars with creating a strong curriculum vitae toward the end of the program</p> <p>I would have been interested in an optional course, maybe 4 weeks, to go over specific employability options and directional support</p> <p>Students in EdD programs at traditional institutions appear to have better success at being placed into teaching positions; therefore, if there was a way to somehow include curricula which would assist students with this transition</p> <p>There should be a hands on class that could link with different careers</p> <p>I go back to having an optional course based on professional career expectations alone but that again would be voluntary</p> <p>The universities can better prepare their EdD students with the knowledge and skills needed in their professional careers by making sure the courses offered are related to real-world situations happening in education currently such as equity, critical race theory, etc.</p> <p>With hands on knowledge based on degree requirements, it would give the students a glimpse of what they need to be successful. It may be just an introduction but a valuable introduction just the same.</p>

Responses supporting *experiential learning and internships* included “provide more experiential learning,” “maybe offering an internship to prospective graduates within their organization may increase the graduate’s chances of employability with that organization of a similar organization,” more opportunities to work with people in their professions while in school,” “more real-world projects,” and “make the program applicable to our lives by providing the practical skills needed for the workplace.”

Responses supporting *career development training* included “help scholars with creating a strong curriculum vitae toward the end of the program,” “I would have been interested in an optional course, maybe 4 weeks, to go over specific employability options and directional support,” “students in EdD programs at traditional institutions appear to have better success at being placed into teaching positions; therefore, if there was a way to somehow include curricula which would assist students with this transition,” “there should be a hands on class that could link with different careers,” “I go back



to having an optional course based on professional career expectations alone but that again would be voluntary,” “the universities can better prepare their EdD students with the knowledge and skills needed in their professional careers by making sure the courses offered are related to real-world situations happening in education currently such as equity, critical race theory, etc.,” and “with hands on knowledge based on degree requirements, it would give the students a glimpse of what they need to be successful. It may be just an introduction but a valuable introduction just the same.”

Data collected from responses of employers of EdD graduates are summarized in Table 3 and Table 4.

**Table 3. Employers of EdD Graduates – Quantitative Response**

		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>
1	To what extent do you agree or disagree that EdD graduates generally demonstrate the necessary <b>soft skills</b> (defined as people skills, communication, teamwork, cross-cultural competence, etc.) which may have been developed from their course requirements within the university environment?		11%	14%	61%	14%
2	To what extent do you agree or disagree that EdD graduates possess the necessary <b>hard skills or work-related skills</b> (defined as leadership, management, conflict management, etc.) which can be attributed to their education from their respective universities?	8%	14%	20%	47%	11%
3	To what extent do you agree or disagree that EdD graduates demonstrate <b>transferable skills</b> (defined as technology use, instructional or training techniques, people development, presentation skills, etc.)?		6%	13%	64%	17%
4	To what extent do you agree or disagree that internship programs or training on employment searches prepare graduates for workplace success?	3%	5%	8%	56%	28%

**Table 4. Employers of EdD Graduates – Qualitative Responses**

		<b>Themes</b>
5	What modifications to EdD curricula, defined as specific knowledge and skills that should be included in required coursework, would better prepare EdD graduates for workplace success?	<ul style="list-style-type: none"> <li>▪ Conflict and classroom management</li> <li>▪ Mentoring, internship practicum, job shadowing, workplace experience</li> <li>▪ Better quality educator/employer collaboration</li> </ul>
6	In what ways should employers collaborate with universities to prepare EdD graduates for workplace success?	

Themes were extracted from responses to the two open-ended questions. Respondent comments supporting themes are presented as follows:

<b>Theme</b>	<b>Respondent Comments</b>
Conflict and classroom management	<p>Need skills for conflict management and having difficult conversations with parents of students</p> <p>Navigating the political minefield that is leadership in public education</p> <p>Communication with parents and how to deal with difficult people</p> <p>Include more courses on classroom management and how to build resilience Students need background knowledge in the following areas: The Science of Reading, Response to Intervention, Classroom Management, The Foundations of Reading preparing for the assessment, exposure how to utilize a textbook to teach the standards, standards-based grading, how to utilize student data to inform instruction, and more experience in the field</p>
Mentoring, internship practicum, job shadowing, and workplace experience	<p>Need skills for conflict management and having difficult conversations with parents of students</p> <p>Navigating the political minefield that is leadership in public education</p> <p>Communication with parents and how to deal with difficult people</p> <p>Include more courses on classroom management and how to build resilience Students need background knowledge in the following areas: The Science of Reading, Response to Intervention, Classroom Management, The Foundations of Reading preparing for the assessment, exposure how to utilize a textbook to teach the standards, standards-based grading, how to utilize student data to inform instruction, and more experience in the field</p> <p>More real-world work, less theoretical or ideological influence</p> <p>Soft skills - empathy, communication, collegiality, collaboration - are integral in how educators work with students, families and community partners. These can be learned skills</p>

Theme	Respondent Comments
Better quality educator/employer collaboration	Offer job shadowing days and mentoring pro-grams would be beneficial
	More emphasis on meeting with a mentor on a weekly basis with specific criteria to review
	Workplace experience, mentorship, etc. - the more hands on, the better
	Internships for practicum hours
	To have a clear understanding of the expectations that are required for the job. I believe that you don't fully understand the job until you get the job. But have a strong mentor program and instructional coach to continue to develop the hard and soft skills for the job. Employers need to be included in decision making and evaluation of grads
	Employers could provide mentoring and internship opportunities
	I think that collaboration is important as education is always evolving. You need an education program that continues to evolve to meet the needs of the changing world, i.e., the workplace
	Help foster connections between workplace opportunities and graduates
	Eliminate the mystery of EdD programs. There should be extensive dialogue between employers and universities to assist in the development of relevant curriculum and experiences
	Create a space for table talk discussions to go over situations/concerns to build efficacy within EdD graduates
	Express very plainly what skills are required to be successful in the job environment. Definitely in a manner that is more consistent, fluent, transparent, and collaborative
	More deliberatively in terms of teacher development programs
	Programs for establishing better relationships between Universities and Employers should be developed and facilitated by persons who understand the essential nature of relationships (people persons)
	Partnerships in the schools with the Universities
Employers should routinely provide insights into realities and trends in the workplace including but not limited to evolving needs and expectations of students, staff and families. This feedback and insights can inform research and identification of best practices in teaching and learning	
Partner with programs and cohorts for growing your own	
Possibly having employers provide topics for research which would benefit their district	

## DISCUSSION

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Results from this study validate existing literature affirming the value of internships, industry/university partnerships, apprenticeships, and other experiential venues to enhance students' experience with real-world workplace situations and promote employability. The difference in survey response rates from students and employers may suggest employers are more concerned about the issues being researched than students; this may be attributed to current students' perception that investment in higher education will improve employability. Researching alumni perspectives would add a highly relevant dimension.

The impact of the small number of student responses on quantitative analysis is noteworthy, as the single person's (9%) low scores might represent a disgruntled individual or correlate with employers' perceptions. The larger number of employer responses resulted in a more balanced and possibly accurate distribution.

Although the literature suggests suboptimal curriculum content supporting problem-solving abilities, communication, work ethic, and lifelong learning, and opportunities for workplace experience, most current EdD student responses to the four quantitative questions indicated "agree" or "strongly agree." Disparities between other studies and these results might be attributed to student optimism about correlations between academic preparation and career advancement; most EdD students are practitioners earning the doctorate for career advancement. These results align with the SCCT assumptions linking perceived efficacy to fulfill educational requirements and occupational roles with persistence through educational preparation and career competencies (Bandura et al., 2001; Healy et al., 2022; Monteiro et al., 2020). In contrast, current EdD student responses to the two qualitative questions repeatedly recommended experiential learning, internships, real-world projects, and more practical skills, employability options, career directions, and linking courses to real-world situations. These suggestions align with existing literature advocating "learn by doing" approaches to pedagogy.

While literature substantiates employer dissatisfaction with graduate demonstration of "soft skill" competencies, most employers of EdD graduates responses to the four quantitative questions indicated "agree" or "strong agree." Disparities between other research and these results may be attributed to inaccurate interpretation of the response categories or reluctance to provide objective assessments. In contrast, responses from employers of EdD graduates to the two qualitative questions reiterated importance of classroom management, dealing with difficult people, internships, practical work experience, and effective educator/employer collaboration. These recommendations align with existing literature advocating collaborative partnerships between educators, employers, community stakeholders, and policymakers.

Factors contributing to misalignment between academic curricula and employment requirements may include failure of curriculum development specialists to keep pace with technology and data management innovation, paucity of pedagogical approaches to active learning (Mainga et al., 2022), and "learning-to-learn by doing" (Abeywardhane & Lützhöft, 2021, p. 31), inadequate immersion in workplace-specific activities (Monteiro et al., 2020), and suboptimal integration of career services with academic programs to match applications with career opportunities (Healy et al., 2022). Bierema (2019) advocated designing T-shaped curricula to enhance employability, incorporating situated, experiential, active learning pedagogy. Transitioning to a T-shaped curriculum could replace fragmented, discipline-centric, reductionist current learning systems with cross-disciplinary approaches predicated on systems thinking (Bertalanffy, 1950, 1972; Bierema, 2019).

In addition, curriculum development specialists may consider expanding pedagogical activities to strengthen students' mastery of interpersonal and intrapersonal skills, such as the following (Giblin & Morris, 2021; Gray, 2022; Handel, 2021):

Ability to work in a team	Computer skills
Problem-solving skills	Detail-oriented
Communication skills (verbal)	Interpersonal skills (relates well to others)
Communication skills (written)	Organizational ability
Initiative	Creativity
Leadership	Strategic planning skills
Technical skills	Friendly/outgoing personality
Flexibility/adaptability	Entrepreneurial skills/risk-taker
Strong work ethic	Tactfulness

## IMPLICATIONS

“Employers, education providers, and [graduates] live in parallel universes” (Barton et al., 2013, p. 18) resulting in fundamental misunderstandings of the same situation. Why? Because they are not engaged with one another: 33% of employers never communicate with educators; 33% of educators are unable to estimate graduates’ employability; under 50% of graduates understand the connection between academic study and career opportunities.

Eliminating disconnects between educators and employers requires removing silos through new forms of collaboration, including initiatives and partnerships between educators, employers, employees, and community stakeholders. Success is defined as educators entering employers’ world and employers experiencing educators’ world (Barton et al., 2013; Llopis, 2022). Improving graduate employability represents a win/win/win scenario: Graduates win. Employers win. Educators win. (see Figure 1):

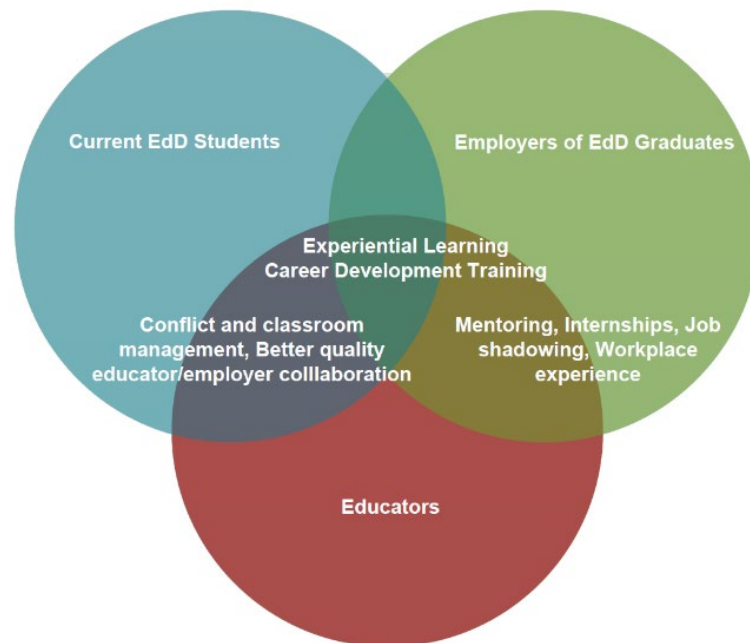


Figure 1. Study Participant Recommendations By Eliminating Stakeholder Silos

Eliminating stakeholder silos can be operationalized by government policymakers collaborating with educators and employers. Policy initiatives include creating educator/employer partnership, motivating employers to offer on-the-job training, using data and analytics to monitor and enhance economic, educational, and labor outcomes, and strengthening midcareer training resources (Dondi et al., 2020). Content analysis of focus group discussions involving eight polytechnic lecturers, six National Board for Technical Education officials, and six industry executives indicated a need to involve industry experts in (1) curriculum development and review to meet today's job requirements in industry and (2) teaching certain aspects of the curriculum (Otache, 2022). "Learning skills" have been ranked the second most crucial employability skill. "In today's fast-paced, rapidly changing work environments characterized by rapid knowledge obsolescence and an unknown future, willingness to learn and proactive lifelong learning are key to sustaining long-term graduate employability" (Mainga et al., 2022, p. 72). Improvement is needed in creativity and innovation skills and the ability to resolve conflicts in teamwork (Mainga et al., 2022). As reported by Gray (2022), the National Association of Colleges and Employers validated the benefits of universities and corporate partners working together on projects and activities for mutual benefit.

When it comes to the development of college students' career readiness, industry should be willing to support career services professionals and faculty. ... [S]uccessful industry supports include, but are not limited to (Gray, 2022, para. 1-4):

- Offering resources for course projects and capstones;
- Serving on advisory boards;
- Providing guest lectures;
- Conducting collaborative research; and
- Hosting case competitions.

Educators can contribute by strengthening individuals' capacity for the adaptability and continuous learning associated with mastering new skills as technology evolves. To illustrate, Lumina Foundation (2022) partners with employers, educators, and policymakers interested in redefining work and learning:

When systems of work and learning are coordinated, a job is never a dead end. Nearly any job can become a pathway to further skill-building, greater employability, and increased opportunity. The benefits to workers are clear: a life of continued intellectual growth, skill-building, and upward mobility. Businesses and other employers also gain by cultivating skilled personnel who have specialized knowledge, the ability to do work more productively, and higher morale. (Lumina Foundation, 2022, para 2-3)

Partnerships between educators and employers in developing curricula can bridge the industry specific skills gap and enhance students' understanding of the professional workplace and capacity to communicate, be empathetic, and solve problems (Dingli & Azzopardi, 2021). In addition to reframing the EdD curriculum, career development improvement opportunities include encouraging dialogue between enrollment advisors, academic counselors, and career advisors. Opening communication channels, collaboration, and partnership between student service professionals and alumni professional development specialists can help graduates make informed decisions about potential careers, identify job opportunities, mentor or seek mentorship, and access an alumni community (C. Celauro, personal communication, October 16, 2021).

Since EdD employer data include position descriptions, these data could be used to map competencies taught in the EdD curriculum to competencies required to fulfill workplace expectations. For example, if EdD graduates accept positions as school principals, do EdD curricula teach graduates to "oversee the daily operations of an elementary, middle, or high school ... hire teachers and staff, manage the budget, and enforce disciplinary rules when necessary ... develop and assess educational pro-

gramming aimed at achieving student learning outcomes, all while [creating] a positive learning environment” (Landry, 2019, para. 9-10). Giblin and Morris (2021) reiterated the centrality of providing practice opportunities:

Skill development requires practice and feedback. Supervisors should provide these opportunities where possible. Creating low-stakes occasions for staff to build communication skills, such as in tabletop exercises and routine inter-departmental projects, allows staff to strengthen their ability to communicate. Supervisors should provide these opportunities where possible and provide feedback. (p. 20)

The power of students’ perceived employability potential represents a promising dimension for curriculum development specialists. Attention should be directed toward integrating problem-based, cooperative, active learning exercises into the curriculum. Educators should launch “guide on the side” (King, 1993, p. 30) teaching initiatives to target the development of interpersonal, communication, participative, and organizational competencies (Healy et al., 2022; Jollands et al., 2012).

Last but not least, students, graduates, and employees must recognize the responsibility and privilege of developing their potential (Succi & Canovi, 2020). Mainga et al. (2022) are eloquent:

Not all relevant soft skills can be developed in the classroom or at the university. Some of the soft skills required to manage volatile labour markets will be developed and refined long after the student has left university. All students—including those who might hate or are tired of school—need to be encouraged to develop a passion and drive for continuous skilling, reskilling, and upskilling throughout their career span. Long-term employability is much more than just in-demand skill acquisition; it is about being able to flexibly adapt and proactively remain relevant in dynamic and evolving labour markets. (p. 99)

## LIMITATIONS

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This study focused on current EdD students and employers of EdD graduates of a university in southwestern United States; data resulting from these choices may not be generalizable to larger study populations. Additional research is needed to identify factors associated with graduate employability and strategies to meet the changing needs of the workplace.

## CONCLUSION

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This study contributes evidence-based data to strengthen the career relevance of academic programs, align curriculum content with industry requirements, prepare students for the workforce, and improve job placement rates, defined as degree-related employment. Insights from research on EdD curricula have universality for other academic programs and may catalyze pedagogical innovation to promote employability in other disciplines. Results may promote corporate, academic, and government partnership to optimize alignment of curricula and industry needs. Improving graduate employability creates positive outcomes for graduates, educators, employers, and the global economy.

## REFERENCES

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- Aasheim, C. L., Li, L., & Williams, S. (2009). Knowledge and skill requirements for entry-level information technology workers: A comparison of industry and academia. *Journal of Information Systems Education (JISE)*, 20(3), 349-356.
- Abelha, M., Fernandes, S., Mesquita, D., Seabra, F., & Ferreira-Oliveira, A. T. (2020). Graduate employability and competence development in higher education—A systematic literature review using PRISMA. *Sustainability*, 12(15), 5900. <https://doi.org/10.3390/su12155900>
- Abeywardhane, A., & Lützhöft, M. (2021). Learning and learning-to-learn by doing: An experiential learning approach for integrating human factors into maritime design education. *Maritime Technology and Research*, 3(1), 31-48. <https://doi.org/10.33175/mtr.2021.241912>

## A Framework to Enhance Graduate Employability

- Alam, M. J., Ogawa, K., & Islam, S. R. B. (2022). Importance of skills development for ensuring graduates employability: The case of Bangladesh. *Social Sciences*, 11(8), 360. <https://doi.org/10.3390/socsci11080360>
- Allen, J., & van der Velden, R. (2012). *Skills for the 21st century: Implications for education*. Maastricht: ROA. Maastricht University School of Business and Economics. <https://doi.org/10.26481/UMAMET.2012043>
- Ambler, K., Herskowitz, S., & Maredia, M. K. (2021). Are we done yet? Response fatigue and rural livelihoods. *Journal of Development Economics*, 153, 102736. <https://doi.org/10.1016/j.jdevco.2021.102736>
- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioral change. *Psychological Review*, 84, 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, 72(1), 187–206. <https://doi.org/10.1111/1467-8624.00273>
- Barton, D., Farrell, D., & Mourshed, M. (2013). *Education to employment: Designing a system that works*. McKinsey & Company. <http://mckinseysociety.com/education-to-employment/report/>
- Bear, A., & Skorton, D. (2019). The world needs students with interdisciplinary education. *Issues in Science and Technology*, 35(2), 60-62.
- Becton, Y. J., Bogiages, C., D'Amico, L., Lilly, T., Currin, E., Jeffries, R., & Tamim, S. (2020). An emerging framework for the EdD activist. *Impacting Education: Journal on Transforming Professional Practice*, 5(2), 43-54. <https://doi.org/10.5195/ie.2020.131>
- Bertalanffy, L. V. (1950). An outline of general systems theory. *The British Journal for the Philosophy of Science*, 1(2), 134-165. <https://doi.org/10.1093/bjps/I.2.134>
- Bertalanffy, L. V. (1972). The history and status of general systems theory. *The Academy of Management Journal*, 15(4), 407-426. <https://doi.org/10.2307/255139>
- Betz, N. E., & Hackett, G. (1981). The relationship of career related self-efficacy expectations to perceived career options in college women and men. *Journal of Counseling Psychology*, 28, 399–404. <https://doi.org/10.1037/0022-0167.28.5.399>
- Bierema, L. L. (2019). Enhancing employability through developing t-shaped professionals. *New Directions for Adult and Continuing Education*, 163, 67-81. <https://doi.org/10.1002/ace.20342>
- Buss, R. R. (2018). How CPED guiding principles and design concepts influenced the development and implementation of an EdD program. *Impacting Education: Journal on Transforming Professional Practice*, 3(2). <https://doi.org/10.5195/ie.2018.57>
- Byars-Winston, A., Gutierrez, B., Topp, S., & Carnes, M. (2011). Integrating theory and practice to increase scientific workforce diversity: a framework for career development in graduate research training. *CBE Life Sciences Education*, 10(4), 357–367. <https://doi.org/10.1187/cbe.10-12-0145>
- Byrne, C. (2022). What determines perceived graduate employability? Exploring the effects of personal characteristics, academic achievements and graduate skills in a survey experiment. *Studies in Higher Education*, 47(1), 159-176. <https://doi.org/10.1080/03075079.2020.1735329>
- Carnevale, A. P., Strohl, J., & Gulish, A. (2015, February). *College is just the beginning: Employers' role in the \$1.1 trillion postsecondary and training system*. Georgetown University Center on Education and the Workforce. <https://cew.georgetown.edu/cew-reports/college-is-just-the-beginning/>
- Cheng, W.-L., Dohrmann, T., Kerlin, M., Law, J., & Ramaswamy, S. (2018, June). *Creating an effective workforce system for the new economy*. McKinsey & Company.
- Collins, M. (2022, October 24). Recruiters and students have differing perceptions of new grad proficiency in competencies. *NACE 2022 Career Readiness*. <https://www.naceweb.org/career-readiness/competencies/recruiters-and-students-have-differing-perceptions-of-new-grad-proficiency-in-competencies/>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.



- David, M. E., David, F. R., & David, F. R. (2021). Closing the gap between graduates' skills and employers' requirements: A Focus on the Strategic Management Capstone Business Course. *Administrative Sciences, 11*(1), 10. <https://doi.org/10.3390/admsci11010010>
- Dingli, A., & Azzopardi, R. M. (2021). Job-ready for market. *Times of Malta*. <https://timesofmalta.com/articles/view/job-ready-for-market-alexiei-dingli-and-rose-marie-azzopardi.888403>
- Dondi, M., Hieronimus, S., Klier, J., Puskas, P., Schmutzner, D., & Schubert, J. (2020, February 7). *A government blueprint to adapt the ecosystem to the future of work*. McKinsey & Company. <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/a-government-blueprint-to-adapt-the-ecosystem-to-the-future-of-work>
- Eden, D., & Aviram, A. (1993). Self-efficacy training to speed reemployment: Helping people to help themselves. *Journal of Applied Psychology, 78*(3), 352–360. <https://doi.org/10.1037/0021-9010.78.3.352>
- Edelman. (2022). *The University of Phoenix Career Optimism Index, DxiI, Research Findings-National Data and DMHLA Findings*. University of Phoenix.
- Fadhil, S. S., Ismail, R., & Alnoor, A. (2021). The influence of soft skills on employability: A case study on technology industry sector in Malaysia. *Interdisciplinary Journal of Information, Knowledge, and Management, 16*, 255-283. <https://doi.org/10.28945/4807>
- García-Aracil, A., Monteiro, S., & Almeida, L. S. (2021). Students' perceptions of their preparedness for transition to work after graduation. *Active Learning in Higher Education, 22*(1), 49-62. <https://doi.org/10.1177/1469787418791026>
- García-Aracil, A., & van der Velden, R. (2008). Competencies for young European higher education graduates: Labor market mismatches and their payoffs. *Higher Education, 55*(2), 219–239. <https://doi.org/10.1007/s10734-006-9050-4>
- Giblin, J., & Morris, M. (2021). Competencies wanted: An analysis of enrollment management job advertisements. *College and University, 96*(2), 15-23.
- Gray, K. (2022, August 22). Better together: How industry and academia can co-support students' career readiness. *NACE 2022: Career Readiness*. <https://www.nacweb.org/career-readiness/competencies/better-together-how-industry-and-academia-can-co-support-students-career-readiness/>
- Healy, M., Hammer, S., & McIlveen, P. (2022). Mapping graduate employability and career development in higher education research: A citation network analysis. *Studies in Higher Education, 47*(4), 799-811. <https://doi.org/10.1080/03075079.2020.1804851>
- Handel, S. (2021). *Book review. Higher expectations: Can colleges teach students what they need to know in the 21st century?* [Review of the book *Higher expectations: Can colleges teach students what they need to know in the 21st century?* by D. Bok]. *College and University, 96*(2), 71-74. <https://www.aacrao.org/research-publications/quarterly-journals/college-university-journal/issue/c-u-vol-96-no-2-spring-2021>
- Herbert, I. P., Rothwell, A. T., Glover, J. L., & Lambert, S. A. (2020). Graduate employability, employment prospects and work-readiness in the changing field of professional work. *The International Journal of Management Education, 18*(2). <https://doi.org/10.1016/j.ijme.2020.100378>
- Jeong, D., Aggarwal, S., Robinson, J., Kumar, N., Spearot, A., & Park, D. S. (2023). Exhaustive or exhausting? Evidence on respondent fatigue in long surveys. *Journal of Development Economics, 161*, 102992. <https://doi.org/10.1016/j.jdeveco.2022.102992>
- Jollands, M., Jolly, L., & Molyneaux, T. (2012). Project-based learning as a contributing factor to graduates' work readiness. *European Journal of Engineering Education, 37*(2), 143–154.
- King, A. (1993). From sage on the stage to guide on the side. *College Teaching, 41*(1), 30-35. <https://doi.org/10.1080/03043797.2012.665848>
- Landry, L. (2019). *8 careers you can pursue with a doctorate in education*. Northeastern University. <https://www.northeastern.edu/graduate/blog/careers-with-doctorate-in-education/>
- Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to career choice: a social cognitive analysis. *Journal of Counseling Psychology, 47*, 36–49. <https://doi.org/10.1037/0022-0167.47.1.36>

## A Framework to Enhance Graduate Employability

- Llopis, G. (2022, March 14). University of Phoenix study reveals employees lack the skills to be successful. *Forbes*. <https://www.forbes.com/sites/glennllopis/2022/03/14/university-of-phoenix-study-reveals-employees-lack-the-skills-to-be-successful/?sh=51f411166b6d>
- Lumina Foundation. (2022). *Integrating work and learning in the new talent economy*. <https://www.luminafoundation.org/aof/work-and-learning/>
- Mainga, W., Murphy-Braynen, M. B., Moxey, R., & Quddus, S. A. (2022). Graduate employability of business students. *Administrative Sciences*, 12(3), 72-107. <https://doi.org/10.3390/admsci12030072>
- Mitchell, L., Campbell, C., Somerville, M., Cardell, E., & Williams, L. (2021). Enhancing graduate employability through targeting ePortfolios to employer expectations: A systematic scoping review. *Journal of Teaching and Learning for Graduate Employability*, 12(2), 82-98. <https://doi.org/10.21153/jtlge2021vol12no2art1003>
- Monteiro, S., Almeida, L., & García-Aracil, A. (2020). “It’s a very different world”: Work transition and employability of higher education graduates. *Higher Education, Skills and Work-Based Learning*, 11(1). <https://doi.org/10.1108/HESWBL-10-2019-0141>
- Monteiro, S., Almeida, L., Gomes, C., & Sinval, J. (2022). Employability profiles of higher education graduates: A person-oriented approach. *Studies in Higher Education*, 47(3), 499-512. <https://doi.org/10.1080/03075079.2020.1761785>
- Morris, T. H. (2019). Adaptivity through self-directed learning to meet the challenges of our ever-changing world. *Adult Learning*, 30(2), 56–66. <https://doi.org/10.1177/1045159518814486>
- Nagy, E. (2014, July/August). A leader has to keep saying the same things over and over again. *Fast Company Magazine*, 39-40.
- National Association of Colleges and Employers. (2022a). Development and validation of the NACE career readiness competencies. <https://www.naceweb.org/uploadedfiles/files/2022/resources/2022-nace-career-readiness-development-and-validation.pdf>
- National Association of Colleges and Employers. (2022b, October 18). *New college graduates and employers agree on key competencies, but at odds about new grad proficiency*. NACEWeb. <https://www.naceweb.org/about-us/press/new-college-graduates-and-employers-agree-on-key-competencies-but-at-odds-about-new-grad-proficiency/>
- National Science Foundation. (2017). Early career doctorates survey questionnaire for a web-based survey. <https://www.nsf.gov/statistics/srvyecd/surveys/srvyecd-2017.pdf>
- Otache, I. (2022). Enhancing graduates’ employability through polytechnic–industry collaboration. *Industry and Higher Education*, 36(5), 604-614. <https://doi.org/10.1177/09504222211063140>
- Percy, W. H., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *The Qualitative Report*, 20(2), 76-85. <https://doi.org/10.46743/2160-3715/2015.2097>
- Pham, T. (2022). Communication competencies and international graduates’ employability outcomes: Strategies to navigate the host labour market. *Journal of International Migration and Integration*, 23(2), 733-749. <https://doi.org/10.1007/s12134-021-00869-3>
- Pinquart, M., Juang, L. P., & Silbereisen, R. K. (2003). Self-efficacy and successful school-to-work transition: A longitudinal study. *Journal of Vocational Behavior*, 63(3), 329–346. [https://doi.org/10.1016/S0001-8791\(02\)00031-3](https://doi.org/10.1016/S0001-8791(02)00031-3)
- Sahin, Y. G., & Celikkan, U. (2020). Information technology asymmetry and gaps between higher education institutions and industry. *Journal of Information Technology Education: Research*, 19, 339-365. <https://doi.org/10.28945/4553>
- Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology*, 80(2), 211–25. <https://doi.org/10.1037/0021-9010.80.2.211>
- Seymour, S. (2015, September 29). *Gallup-Purdue Index 2015 Report now available*. Gallup. <https://news.gallup.com/opinion/gallup/185942/gallup-purdue-index-2015-report-available.aspx>

- Small, L., McPhail, R., & Shaw, A. (2022). Graduate employability: The higher education landscape in Australia. *Higher Education Research & Development*, 41(3), 919-933. <https://doi.org/10.1080/07294360.2021.1877623>
- Suarta, I. M., Suwintana, I. K., Sudhana, I. F. P., & Hariyanti, N. K. D. (2017, September). Employability skills required by the 21st century workplace: A literature review of labour market demand. *Proceedings of the 1st International Conference on Technology and Vocational Teachers (ICTVT 2017)* (pp. 337-342). Yogyakarta, Indonesia: Atlantis Press. <https://doi.org/10.2991/ictvt-17.2017.58>
- Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: Comparing students and employers' perceptions. *Studies in Higher Education*, 45(9), 1834-1847. <https://doi.org/10.1080/03075079.2019.1585420>
- Tran, L. T., Ngo, N. T. H., Nguyen, H. T. M., Le, T. T. T., & Ho, T. T. H. (2022). "Employability in context": graduate employability attributes expected by employers in regional Vietnam and implications for career guidance. *International Journal for Educational and Vocational Guidance*, 1-21. <https://doi.org/10.1007/s10775-022-09560-0>
- Vitale, C., Bowyer, D., & Bayerlein, L. (2020). Developing and presenting a framework for meeting industry, student and educator expectations in university degrees. *E-Journal of Business Education & Scholarship of Teaching*, 14(1), 57-65. <https://researchdirect.westernsydney.edu.au/islandora/object/uws%3A57853>
- Wolff, R., & Booth, M. (2017). Bridging the gap: Creating a new approach for assuring 21st century employability skills. *Change: The Magazine of Higher Learning*, 49(6), 51-54. <https://doi.org/10.1080/00091383.2017.1399040>

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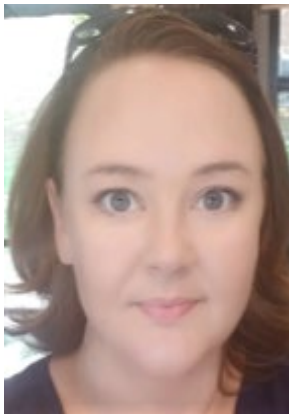


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