



## **Employers' Satisfaction with Graduate Competencies in Slovenia: Differences between the Public and Private Sectors**

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This study investigates employer satisfaction with the qualifications and competencies of graduates in education-related disciplines, encompassing fields focused on teaching, learning, and human development. Drawing on data from 464 employers across diverse sectors, the study compares satisfaction levels between public sector (education) and private sector employers. The analysis reveals that private sector employers report significantly higher satisfaction with graduates' qualifications than their public sector counterparts. ICT literacy was the highest-rated competency across sectors, while leadership and social engagement ranked the lowest, likely due to limited academic opportunities and emphasis. Employers view these skills as requiring experience and long-term development. Public sector employers rated critical thinking and self-initiative slightly higher than private sector counterparts. Many employers emphasized the need for further training, particularly in leadership, problem-solving, and communication. Aligning curricula with labor market demands is essential to equip graduates with both technical and soft skills. The study recommends enhancing curriculum design and industry partnerships to improve employability and long-term career success.

**Keywords:** employers' satisfaction, graduate qualifications, competencies, public sector, additional education and training, labor market needs

### **INTRODUCTION**

The modern labor market is characterized by shorter career cycles and rapidly evolving professional trajectories for graduates (Tomlinson, 2012), presenting significant challenges to early and long-term career success (Burgess et al., 2003). Employer satisfaction with graduate performance is pivotal for facilitating smooth workplace integration and the cultivation of essential professional competencies, such as critical thinking, leadership, and ICT skills. For graduates, bridging the gap between practical experiences—such as internships, applied learning, and industry collaborations—and the application of theoretical knowledge is critical. Simultaneously, employers play a key role in fostering an environment conducive to professional growth through

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mentorship, constructive feedback, experiential learning opportunities, and adaptive workplace practices. Given the distinct competencies required in education-related disciplines, such as pedagogical skills, ICT literacy, and leadership, graduates in this field present unique challenges and opportunities in meeting employer expectations. This makes them a particularly relevant focus for understanding sectoral differences in employer satisfaction with graduate qualifications and competencies.

This paper examines the transition of young graduates, particularly those in education-related fields, from academia to employment, with an emphasis on developing core competencies needed to thrive in dynamic labor markets. The study explores how employer expectations and the demand for adaptability impact graduate employability and career trajectories. Addressing these challenges is crucial for aligning educational outcomes with workforce needs, enhancing employer satisfaction, and fostering the sustainable development of human capital.

The findings presented aim to inform educational strategies that promote stronger collaboration between higher education institutions and industry. Emphasizing lifelong learning, adaptability, and responsive curriculum design, this research highlights the necessity of preparing graduates for success in an increasingly competitive and unpredictable job market. The existing research lacks a clear comparison of competencies valued by public and private sector employers in education-related fields, leaving gaps in understanding sector-specific expectations. Additionally, public sector hiring may include graduates from non-relevant fields, potentially skewing employer satisfaction and highlighting a mismatch between training and job demands. This study addresses these gaps by examining whether current educational programs align with workforce needs and how employer expectations differ across sectors, ultimately informing strategies to enhance graduate preparedness and employability.

### **Theoretical Framework**

#### *Transition from Education to Employment*

The transition from education to employment represents a critical career milestone, marking the shift from student to professional (Vos et al., 2019). This period is characterized by young individuals entering the labor market and beginning to shape their professional identities. Early career success, often considered a strong predictor of long-term career achievement, is a valuable metric for evaluating the effectiveness of this transition (Evangelio et al., 2022). While quality education is a key factor in career success, its impact is often limited when considered in isolation (Hogan et al., 2013). Contemporary graduates increasingly acknowledge that academic qualifications alone are insufficient for securing and excelling in employment (Buhl et al., 2018; Tomlinson, 2012). Instead, the development of career competencies, as outlined by Akkermans et al. (2013), plays a critical role in shaping graduate employability. Among these competencies, ICT literacy, leadership, and social engagement are particularly relevant to this study. These competencies not only contribute to a graduate's overall employability but are also central to the expectations of employers, as demonstrated by the findings in this study. As employers increasingly value these skills, it becomes essential for educational curricula to align with industry demands, fostering the

development of these competencies in graduates. These competencies enable young individuals to understand their personal traits and motivations, crafting strategies for navigating the labor market and fostering sustainable employment (Al-Awamleh & Ayash, 2023; Savickas & Porfeli, 2012). Moreover, career competencies form the cornerstone of employability, which is essential for career progression (Akkermans & Kubasch, 2017; Rothwell et al., 2009; Ruayruay et al., 2020). For young educators, the early stages of their professional journeys are particularly critical. This phase lays the foundation for their long-term development in the field of education, requiring the cultivation of pedagogical, metacognitive, and social competencies essential for effective teaching (Krmac et al., 2021). During this time, young teachers shape their professional identities, which are central to their commitment to the profession and their capacity to adapt to evolving educational demands (Savickas & Porfeli, 2012; Eurydice, 2012). The research underscores the importance of initial training that incorporates practical experience, mentorship from experienced colleagues, and opportunities for continuous self-reflection (Goodson, 2003; Korthagen, 2004).

A systematic connection between initial training and ongoing professional development is essential for enabling young educators to acquire complex skills. These include the integration of innovative teaching methods, effective use of ICT, and collaborative teamwork (Eurydice, 2012). Furthermore, this foundational period supports lifelong learning and the continuous enhancement of competencies needed for success both within and beyond the classroom (Child, 2004; Krmac et al., 2021).

The induction process for young professionals, particularly teachers, is part of a lifelong trajectory that begins with initial training and evolves throughout their careers. Building interdisciplinary expertise, including research, self-evaluation, critical reflection, and pedagogical-psychological proficiency, requires sustained professional development and experiential learning. Mentorship from experienced colleagues plays a critical role in this process, fostering the integration of theoretical knowledge with practical application (Krmac et al., 2021). Maduka (2014) highlights postgraduate education as a strategic investment in human capital, both at the individual and national levels. Temmerman (2019) further emphasizes that the modern labor market demands frequent career shifts, with graduates changing jobs an average of 10 times or more. This dynamic underscores the necessity of reskilling and upskilling, particularly in response to rapid advancements in knowledge and technology. Evidence from Allen et al. (2009) underscores the importance of collaboration between higher education institutions and employers. Their findings reveal that prior work experience substantially enhances employability, though the benefits of internships and practical placements should not be overstated, as no direct correlation was found between internships and employment levels. Employer involvement in the design and implementation of academic programs significantly improves the quality of graduates and their workplace performance. By addressing these challenges, higher education institutions can better prepare graduates for the complexities of the modern labor market, fostering smoother transitions from education to employment and enhancing long-term career success.

*Evolving Roles and Competencies in the Teaching Profession*

Over the past two decades, the teaching profession has undergone profound transformations across European countries, particularly in redefining pedagogical and organizational responsibilities. Contemporary educators are expected to demonstrate not only research-based and professional expertise but also a wide array of interpersonal, leadership, and personality-driven competencies (Child, 2004; Day, 1999, 2002; Gilroy, 2005; Goodson, 2003; Grimaldi & Karpicke, 2012; Persson et al., 2000). In a rapidly evolving knowledge society, teachers are tasked with adopting multifaceted roles. These include addressing the needs of diverse student populations—such as those with varying abilities, special needs, and multicultural backgrounds—while also integrating ICT, fostering innovation, mentoring peers, collaborating in teams, promoting learning, and engaging in both personal and professional development. They are further expected to reflect on and evaluate their work, embrace change, and adapt to the shifting demands of the educational landscape (Goodson, 2003; Persson et al., 2000).

Jarvis (1983, cited in Cvetek, 2004, p. 35) asserts that novice professionals cannot be expected to demonstrate full competence immediately upon entering the profession. However, he emphasizes that a robust foundation established during initial education is essential for ongoing competency development. According to the Eurydice expert group, core teacher competencies encompass: (i) Classroom innovation: Proficiency in applying novel teaching methods, adapting to social, cultural, and ethnic diversity, and fostering a supportive learning environment; (ii) Non-teaching responsibilities: Skills for curriculum development, educational planning, work evaluation, and collaboration with parents; (iii) Student development: The ability to foster new competencies and knowledge in students; (iv) Professional growth: A focus on research-oriented and problem-solving approaches; (v) ICT integration: Effective use of information and communication technologies in teaching (Eurydice, 2012). These competencies underscore the evolving expectations of teachers in modern education systems, where adaptability and interdisciplinary expertise are increasingly vital. As the demands on educators expand beyond traditional subject-matter knowledge, the integration of skills such as innovation in teaching, ICT proficiency, and the ability to collaborate across disciplines has become essential. This shift reflects the broader changes in education, where teachers must be not only experts in their fields but also versatile professionals capable of navigating diverse educational challenges. In addition to professional competencies, generic skills such as ethical values, critical thinking, and intellectual adaptability are increasingly emphasized (Barrie, 2006). However, concerns persist that undergraduate programs fail to adequately equip students with the skills required for lifelong learning and professional preparedness (Candy & Crebert, 1991; Candy, 1994; Harvey, 2001). Hesketh's (2000) study of 372 employers identified five key skills critical for workplace success: oral communication, written communication, lifelong learning, problem-solving, and teamwork. Subsequent research by DEST and GCA (2007) revealed that while employers' value specific graduate skills, they particularly prioritize interpersonal capabilities, practical experience, and the immediate application of academic knowledge in the workplace (Burns & Gottschalk, 2019). Studies by Andrews & Higson (2008), Harvey (2001), Yorke (2006), and Zepeda (2015)

consistently identify ten competencies highly valued by employers: effective communication skills, adaptability, ethical commitment, willingness to learn from mistakes, organizational and time management skills, pursuit of excellence, empathy and teamwork, openness to diverse perspectives, team project contributions, and priority-setting with justifications.

These findings underscore three critical areas for improving graduate readiness and employer satisfaction: (i) Defining generic competencies: Clearer articulation of essential skills required for specific roles; (ii) Collaboration between stakeholders: Strengthened partnerships between higher education institutions, industry, and the public sector to align graduate preparation with labor market demands; (iii) Competency alignment: Ensuring educational program outcomes are tailored to the private and public sector needs.

By addressing these areas, higher education can better equip graduates with the skills and competencies necessary to thrive in an increasingly complex and dynamic professional environment. Gilroy (2005) forecasts that schools, as employers, will increasingly take on significant responsibilities in the recruitment and training of teachers. However, critics of the competency-based approach argue that effective teaching cannot be reduced to a collection of isolated skills. Such a fragmented perspective risks neglecting critical aspects of teachers' professional identities and their beliefs about the fundamental mission of their work—elements that are essential for impactful teaching (Korthagen, 2004). Over the past two decades, the teaching profession has undergone substantial transformation, resulting in an expanded range of required competencies that go beyond pedagogical and subject-matter expertise. These include ethical values, adaptability, organizational abilities, and teamwork—skills that are increasingly vital for teachers' success in dynamic educational environments.

Despite their importance, research indicates that many educational programs fall short of equipping future teachers with the skills needed for a successful career launch and sustained professional growth. To address this gap, stronger collaboration between universities and employers is essential to ensure that teacher training programs align with labor market demands. While specific competencies are undeniably important, critics stress that teacher quality is equally dependent on holistic attributes, such as a well-defined professional identity and a deep understanding of their broader mission. These qualities enable teachers to navigate the complexities of their roles and adapt to future challenges in education. This integrated perspective on teacher development highlights the need for training programs that balance technical skill-building with fostering professional identity and mission-driven teaching. Such an approach will be critical for preparing teachers to meet the demands of a rapidly evolving educational landscape. The transition from education to employment is a critical stage in a graduate's career (Željeznov Seničar et al., 2006). This study focuses specifically on employer satisfaction with the qualifications and competencies of graduates, with particular emphasis on sectoral differences. While employer expectations are essential for smooth workplace integration, this study highlights the distinctions in these expectations between the public and private sectors, focusing on the specific competencies valued in each. In education-related disciplines, bridging the gap between

academic training and practical experience is crucial. However, employer satisfaction varies across sectors, revealing differing priorities in graduate competencies such as leadership, ICT literacy, and critical thinking. By narrowing the scope to these sectoral differences, this research provides valuable insights into how educational curricula can be better aligned with employer needs, ultimately enhancing graduate employability and career success.

## **METHOD**

### **Research Questions**

The primary objective of this study was to evaluate employer satisfaction with graduates of pedagogical programs, emphasizing their general and specific competencies. The analysis focused on a range of competencies, including: problem-solving, decision-making, creativity and innovation, leadership skills, ICT literacy, engagement with local, national, and global social issues, respectful and effective intercultural communication, personal and social responsibility, self-initiative, collaboration and teamwork, critical thinking, understanding and respecting diverse worldviews, and global competencies. The research specifically aimed to gather insights from employers in the public sector, particularly in education and training, and compare these findings with those obtained from a prior national-level study that involved employers in the private sector.

Based on insights from existing literature, the following research questions (RQs) were developed:

RQ1: Does employer satisfaction with the competencies of pedagogical graduates in the public sector differ from satisfaction with non-pedagogical graduates in the private sector?

RQ2: Which competencies are most important to employers, and do they differ between the private sector and public sector (education and training)?

RQ3: Are there differences in the need for additional training between non-pedagogical graduates in the private sector and pedagogical graduates in the public sector (education and training)?

### **Research Design**

This study employed a quantitative, survey-based research design, with a focus on comparative analysis. The analysis aimed to evaluate employer satisfaction with graduate competencies in two distinct sectors—public (education and training) and private sectors. A tailored online questionnaire was developed to gather data, enabling comparisons across sectors and providing insights into the competencies employers value most. The study involved statistical analysis of responses, including descriptive and inferential techniques to conclude about employer satisfaction, sectoral differences, and the need for additional training.

### Research Sample

The study's target population comprised 949 employers, 464 of whom partially or fully completed the survey. These data are part of the project *Designing for Enhanced Competence through Active Participation in Higher Education (DECAP-HE)*, co-funded by the Mechanism Norway Grants for for 2014–2021. The sample included 45.3% male and 54.7% female participants. The majority belonged to the 41–50 age group (39.0%), followed by the 51–60 group (29.7%) and the 31–40 group (21.7%). Participants aged over 61 represented 6.3%, while those under 30 accounted for 3.3%. Sector Distribution: 79.3% of the participants worked in the private sector, while 20.7% were employed in the public sector, specifically in education and training.

The employers were selected using convenience sampling, with a focus on organizations within the national context.

The study was conducted nationwide within the framework of the DECAP-HE project, co-funded by the Norwegian Financial Mechanism 2014–2021.

### Instruments and Data Collection

A tailored online questionnaire was developed to gather data from employers, focusing on the significance of competencies and career development of graduates. The questionnaire covered five areas: (i) General demographics: gender, age, education level and type of organization; (ii) Satisfaction with graduates' knowledge and skills over the past decade; (iii) Frequency of graduates' demonstrated competence in communication skills, social skills, ICT literacy, social engagement, and global competencies; (iv) Needs for additional education and training of graduates; (v) Employer involvement in curriculum design processes. The questionnaire, hosted on the online platform 1ka.si (1KA, version 20.12.03, 2017), was available to employers from September 6, 2022, to December 31, 2022. Data were analysed using descriptive and inferential statistics. Appropriate statistical tests were employed to meet the study objectives.

### Data Processing

Data analysis was conducted using SPSS, version 26 (IBM Corp., 2019). The process included: Descriptive Statistics - frequency distributions and parameter estimates (structural percentages).

Inferential Statistics: Chi-square tests ( $\chi^2$ ) to assess relationships between categorical variables (e.g., sectoral differences in competencies); Kendall's  $\tau$  coefficient for pairwise correlations between ordinal and nominal variables; Independent sample t-tests to compare differences in means across independent groups (e.g., comparing satisfaction with graduates between sectors).

The reliability of the instrument was assessed through factor analysis and calculation of Cronbach's alpha. The Kaiser-Meyer-Olkin (KMO) test results (KMO satisfaction = 0.861; KMO dissatisfaction = 0.767) and Bartlett's test results indicated the suitability of the data for factor analysis ( $\chi^2$  satisfaction = 1294.823,  $p = 0.000$ ;  $\chi^2$  dissatisfaction =

630.145,  $p = 0.000$ ). Factor analysis extracted five factors from satisfaction and dissatisfaction data, explaining 56.71% (dissatisfaction) and 58.68% (satisfaction) of the variance. The instrument's reliability was further supported by high Cronbach's alpha values ( $\alpha$  dissatisfaction = 0.764;  $\alpha$  satisfaction = 0.861). The questionnaire's objectivity was ensured through the use of closed-ended questions and clear, unambiguous instructions. The validity of the rating scales was confirmed by factor analysis.

### **Limitations of the Study**

Several limitations should be noted:

The study's sample size (464 employers) and its representativeness may limit the generalizability of the findings. The study also focused specifically on employers in the public sector (education and training) and the private sector, which may not fully represent all employment sectors; Employers may have varied in their understanding and interpretation of competencies, which could influence their ratings of graduate competencies; The study was limited to the national context, and findings may not be apply to other countries or regions.

This research was developed within the DECAP-HE project, co-financed through the Norwegian Financial Mechanism 2014–2021.

### **FINDINGS**

The results of the study are organized into three key areas based on the research objectives: 1. Satisfaction with graduates' knowledge and skills; 2. Frequency of demonstrated competencies by graduates; 3. Analysis of the need for additional education and training for graduates.

#### **(i) Satisfaction with Graduates' Knowledge and Skills**

To assess satisfaction with graduates' knowledge and skills, a t-test for independent samples was conducted to compare the satisfaction levels between employers in the private sector and those in the public sector (education and training). The results showed that slightly more than half of the respondents (53%) were satisfied with the knowledge and skills of graduates, while approximately one-third (33%) were dissatisfied. Private sector employers reported a higher level of satisfaction ( $M = 3.83$ ,  $SD = 0.54$ ) compared to public sector employers ( $M = 3.61$ ,  $SD = 0.70$ ).

The t-test revealed a significant difference in satisfaction between the two sectors ( $t(344) = -2.46$ ,  $p = 0.014$ ), with a moderate effect size ( $d = -0.33$ ). This indicates that employers in the private sector were more satisfied with the graduates' competencies than those in the public sector, particularly in education and training.

#### **(ii) Frequency of Demonstrated Competencies by Graduates**

To compare the frequency of competencies demonstrated by graduates in the private and public sectors, Mann-Whitney U tests (non-parametric) were performed. These tests were used because the competency data were ordinal rather than continuous.



ICT literacy was the highest-rated competency across both sectors ( $M_{\text{pub}} = 3.31$ ;  $M_{\text{priv}} = 3.13$ ), reflecting the increasing demand for digital skills in the workforce. In contrast, competencies such as leadership skills ( $M_{\text{pub}} = 2.25$ ;  $M_{\text{priv}} = 2.15$ ) and engagement in social issues ( $M_{\text{pub}} = 2.39$ ;  $M_{\text{priv}} = 2.19$ ) were rated the lowest across both sectors.

The results of the Mann-Whitney U tests revealed significant differences in the ratings for competencies related to initiative ( $\tau = 0.11$ ,  $p = 0.40$ ) and critical thinking ( $\tau = 0.11$ ,  $p = 0.34$ ). Public sector employers rated graduates' abilities in these areas slightly higher than private sector employers. This may reflect sector-specific cultural differences in expectations regarding self-initiative and analytical thinking.

Table 1

Comparison of median ratings for graduate competencies in the public (education) and private sectors

Competence	Sector of Employment	N	M	SO
Problem-solving	Economy	282	2.56	.705
	Education and Training	72	2.63	.615
Decision-making	Economy	283	2.28	.666
	Education and Training	72	2.40	.725
Creativity, Innovation	Economy	283	2.61	.747
	Education and Training	72	2.81	.705
Leadership	Economy	283	2.15	.745
	Education and Training	72	2.25	.727
ICT literacy	Economy	281	3.13	.687
	Education and Training	72	3.31	.705
Engagement in local, national, and global societal issues	Economy	282	2.19	.743
	Education and Training	72	2.39	.761
Respectful and effective intercultural communication	Economy	283	2.81	.715
	Education and Training	72	2.94	.648
Personal and social responsibility	Economy	283	2.65	.759
	Education and Training	71	2.66	.716
Self-initiative	Economy	283	2.45	.795
	Education and Training	72	2.61	.703
Collaboration and teamwork	Economy	283	2.85	.706
	Education and Training	72	2.86	.698
Critical thinking	Economy	283	2.54	.777
	Education and Training	72	2.64	.737
Understanding and respecting different worldviews	Economy	281	2.65	.711
	Education and Training	72	2.76	.682
Global competencies	Economy	282	2.37	.725
	Education and Training	71	2.52	.734

Notes:  $M_{\text{pub}}$ : Median responses from employers in the public sector (education).  $M_{\text{priv}}$ : Median responses from employers in the private sector.

This comparison highlights the differences in perceived competencies of graduates between sectors, with the public sector generally assigning slightly higher median ratings in areas like initiative and critical thinking.

*(iii) The Need for Additional Training of Graduates*

A t-test for independent samples was used to compare the need for additional education and training between the private and public sectors. The results showed that 35.8% of respondents believed that all or nearly all graduates require additional training, while 40.7% believed that a considerable number of graduates need further education. Only 3.3% indicated that very few or no graduates required additional training.

The analysis revealed a significant difference between the sectors in terms of perceived need for further training. Employers in the public sector were more likely to emphasize the need for additional training ( $M = 2.07$ ,  $SD = 1.02$ ) compared to those in the private sector ( $M = 1.84$ ,  $SD = 0.76$ ). The t-test results showed a statistically significant difference ( $t(353) = -2.12$ ,  $p = 0.035$ ), with a small effect size ( $d = -0.28$ ).

The t-test for independent samples was used to compare satisfaction with graduates' knowledge and skills and assess the need for additional education and training between private and public sector employers, while the Mann-Whitney U test was applied to compare the frequency of demonstrated competencies between the two sectors, given the ordinal nature of the data. These statistical tests allowed us to identify differences in employers' perceptions of graduates' competencies and the need for further training across the sectors.

**DISCUSSION***(i) Satisfaction with the Knowledge and Competence of Graduates*

The findings reveal that private sector employers express higher satisfaction with the knowledge and competencies of graduates compared to their public sector counterparts, particularly in the field of education and training. This divergence in satisfaction may be attributed to the contrasting priorities and operational environments of the private and public sectors. Private sector employers tend to prioritize results-driven, practical, and immediately applicable skills. As Harvey (2001) suggests, competencies such as problem-solving, adaptability, and teamwork are key in industries that require fast-paced innovation and direct output. The private sector's focus on measurable performance outcomes likely shapes employer expectations of graduates. In contrast, the public sector, particularly within educational roles, places more emphasis on social competencies, empathy, and pedagogical skills. These competencies, which require extended experience and professional development, align with the sector's longer-term, developmental focus (Yorke, 2006). Interestingly, this pattern of higher satisfaction in the private sector supports the findings of Yorke (2006), who noted that private organizations tend to be more precise in their expectations, with clear performance metrics shaping their evaluations. The public sector, with its diverse stakeholders and often subjective evaluation methods, faces challenges in articulating and measuring employer satisfaction in terms of graduate competencies. This study's findings echo Harvey's (2000) assertion that the public sector's requirements are often harder to define and more dependent on personal and interpersonal qualities, which can be difficult to assess quantitatively.

The results also offer a theoretical contribution by reinforcing the notion that sector-specific needs should be considered when designing educational curricula. The findings highlight the importance of tailored education programs that align with sector-specific requirements, as emphasized by previous research (Harvey, 2001). This aligns with the broader call for aligning higher education with labor market demands (OECD, 2018), and underscores the need for personalized, sector-driven approaches to graduate training.

*(ii) Frequency of Demonstrated Competencies and Differences Between Employment Sectors*

The study further identified ICT literacy as the highest-rated competence, corroborating a global trend where technological proficiency has become essential across both private and public sectors (Eurydice, 2012). This finding aligns with existing literature emphasizing the increasing importance of digital skills in modern workplaces. However, competencies such as leadership, social engagement, and conflict resolution received significantly lower ratings, pointing to an evident gap in existing educational programs. These findings align with Andrews and Higson (2008), who argue that the lack of practical, hands-on experience in academic settings contributes to these deficits. The lower ratings for these competencies in our study point to a potential overemphasis on technical skills and a failure to sufficiently develop the interpersonal and leadership skills critical for long-term career success. The observed sectoral differences also support the conclusions drawn by Kim and Jung (2022), who found that the private sector values innovation and rapid adaptability, whereas public institutions emphasize autonomy and long-term developmental processes. Our study extends this perspective by illustrating how these sectoral differences in competency ratings can impact graduate preparedness and employability. The critical finding here is that educational programs are often too one-dimensional, focusing on either practical skills or academic theory, without bridging the two. This limitation leaves graduates unprepared for the labor market's diverse demands. Theoretical contributions from this section include the recognition that education systems must integrate a more holistic approach to competency development. This would involve incorporating both technical expertise and leadership/social skills within the curriculum, ensuring that graduates are well-rounded and capable of thriving in diverse work environments.

*(iii) The Need for Additional Education and Training*

A striking finding of this study is that 76.5% of employers believe graduates require further education or training. This high percentage reflects a significant disconnect between what higher education institutions provide and the actual needs of employers, which is consistent with criticisms in existing literature. As Yorke (2006) and Eurydice (2012) have noted, traditional educational models are often ill-equipped to prepare graduates for the dynamic and interdisciplinary demands of the modern labor market. This gap between educational outcomes and labor market needs calls for a rethinking of educational models and a stronger emphasis on bridging theoretical knowledge with practical application. The sectoral differences noted in the study, with the public sector requiring a broader range of interpersonal skills, and the private sector focusing on

technical and problem-solving abilities, further emphasize the need for tailored educational approaches. The high demand for additional training in the public sector underscores the need for more comprehensive professional development programs that focus on the soft skills required in educational environments, such as communication and conflict resolution. Conversely, the private sector's emphasis on immediate technical application calls for a reorientation of higher education curricula toward practical skills that can be directly applied in the workplace.

The study's findings contribute to the ongoing dialogue around the inadequacies of traditional higher education systems, reinforcing calls for dual education models (OECD, 2018). The dual education system, which combines academic learning with work-based experience, could provide a solution to the gaps in graduates' competencies. This approach has been endorsed in numerous international studies as a way to better align educational outputs with labor market requirements.

#### *(iv) Policy and Practice Implications*

The findings from this study have several practical implications for both higher education institutions and employers. Higher education institutions should reassess their curricula to better align with the specific needs of employers. This alignment should not only address technical competencies but also focus on developing leadership, social engagement, and other interpersonal skills essential for career success. Practical training, internships, and industry partnerships should be integrated into programs to ensure that students gain real-world experience and a broader skill set. Moreover, policymakers should encourage the development of dual education systems, where formal education is combined with industry-specific training. This approach could address the gap between theoretical knowledge and practical skills, ultimately enhancing graduate employability and satisfaction. Additionally, ongoing collaboration between academia and industry is crucial to ensuring that curricula remain responsive to emerging trends and skills demands.

### **LIMITATIONS**

While the study provides valuable insights, several limitations should be acknowledged. First, the research was limited by its focus on only private and public sectors within specific fields (e.g., education and training), which may not fully capture the broader diversity of industry needs. Future research should explore additional sectors, including those in technology, healthcare, and the arts, to gain a more comprehensive understanding of employer expectations across various industries. Moreover, the study relied heavily on employer self-reports, which may be subject to biases or inaccuracies. Future studies could incorporate a longitudinal design, tracking graduate competencies and employer satisfaction over time, to better understand the evolving relationship between education and the labor market. Additionally, research could explore the perspectives of graduates themselves, assessing their perceptions of competency gaps and their experiences in transitioning from education to employment.

## CONCLUSION

This study underscores the urgent need for educational reform, highlighting key gaps between current educational models and labor market demands. Employers have expressed higher satisfaction with graduates in the private sector, but substantial gaps remain in areas like leadership skills, social engagement, and ICT literacy. These findings point to the need for immediate action to align curricula with the evolving requirements of the modern labor market. In response to these findings, we recommend the following actionable steps: (i) Educational institutions should begin revising curricula within the next 6-12 months to focus more on the development of leadership skills, social engagement, and global competencies; (ii) Higher education institutions should immediately increase collaboration with employers to co-design study programs that meet the specific demands of both public and private sectors; (iii) By the next academic year, institutions should integrate more practical training and mandatory internships to enable students to acquire essential competencies like leadership, critical thinking, and teamwork; (iv) Educational programs focusing on competency gaps, such as ICT literacy and communication skills, should be launched in the next 12-18 months; (v) Regular surveys and focus groups with employers should be conducted annually to ensure curricula remain aligned with industry needs; (vi) Employers should be encouraged to play a more active role in curriculum development and provide feedback on the preparedness of graduates.

By implementing these recommendations within the next year, higher education institutions can better meet the expectations of employers, enhance graduate employability, and foster long-term growth in the workforce.

## REFERENCES

- Al-Awamleh, A. A., & Ayash, K. M. A. (2023). The competency assessment of Imam Abdulrahman Bin Faisal University (IAU) graduates. *International Journal of Instruction*, 16(4), 899-920. <https://doi.org/10.29333/iji.2023.16450a>
- Akkermans, J., Schaufeli, W. B., Brenninkmeijer, V. & Blonk, R. W. B. (2013). The role of career competencies in the Job Demands — Resources model. *Journal of Vocational Behavior*, 83(3), 356–366. <https://doi.org/https://doi.org/10.1016/j.jvb.2013.06.011>
- Akkermans, J. & Kubasch, S. (2017). Trending topics in careers: A review and future research agenda. *The Career Development International*, 22(6), 586–627. <https://doi.org/10.1108/CDI-08-2017-0143>
- Allen, J., van der Velden, R., Coenen, J., Humburg, M., Róbert, P. & Svetlik, I. (2009). *Competencies and Early Labour Market Careers of Higher Education Graduates*.
- Andrews, J. & Higson, H. (2008). Graduate Employability, “Soft Skills” Versus “Hard” Business Knowledge: A European Study. *Higher Education in Europe*, 33(1). <https://doi.org/10.1080/03797720802522627>

- Barrie, S. (2006). Understanding What We Mean by Generic Attributes of Graduates. *Higher Education*, 51(1), 215–241. <https://doi.org/10.1007/s10734-004-6384-7>
- Buhl, H. M., Noack, P. & Kracke, B. (2018). The role of parents and peers in the transition from university to work life. *Journal of Career Development*, 45(6), 523–535. <https://doi.org/10.1177/0894845317720728>
- Burgess, S., Propper, C., Rees, H. & Shearer, A. (2003). The class of 1981: the effects of early career unemployment on subsequent unemployment experiences. *Labour Economics*, 10(3), 291–309. <https://econpapers.repec.org/RePEc:eee:labeco:v:10:y:2003:i:3:p:291-309>
- Burns, T. & Gottschalk, F. (2019). What do we know about children and technology? *Educational Research and Innovation*, 1, 1–16. Retrieved 29 January, 2024 from <http://www.oecd.org/education/ceri/Booklet-21st-century-children.pdf>
- Candy, P. C. & Crebert, R. G. (1991). Ivory Tower to Concrete Jungle: The Difficult Transition from the Academy to the Workplace as Learning Environments. *The Journal of Higher Education*, 62/5, 570–592. <https://doi.org/10.2307/1982209>
- Candy, P.C. (1994). *Developing lifelong learners through undergraduate education*, 1. Retrieved 29 January, 2024 from: <https://api.semanticscholar.org/CorpusID:210373275>
- Child, D. (2004). *Psychology and the teacher*. New York: Continuum.
- Cvetek, S. (2004). Kompetence v poučevanju in izobraževanju učiteljev. *Sodobna pedagogika*, 55(1), 144–160.
- Day, C. (1999). *Developing Teachers: The Challenges of Lifelong Learning*. Routledge. <https://doi.org/10.4324/9780203021316>
- Day, C. (2002). School reform and transitions in teacher professionalism and identity. *International Journal of Educational Research*, 37(8), 677–692. [https://doi.org/https://doi.org/10.1016/S0883-0355\(03\)00065-X](https://doi.org/https://doi.org/10.1016/S0883-0355(03)00065-X)
- DEST (2007). Graduate employability skills. Retrieved 27 January, 2024 from: <http://www.dest.gov.au/NR/rdonlyres/E58EFDBE-BA83-430E-A541-2E91BCB59DF1/20214/GraduateEmployabilitySkillsFINALREPORT1.pdf>
- Eurydice. (2012). *Key topics in education in Europe*. Volume 3, The teaching profession in Europe: Profile, trends, expectations. Report IV, How to maintain the attractiveness of the teaching profession in the 21st century: General lower secondary education. Retrieved 7 June, 2024 from: <https://op.europa.eu/en/publication-detail/-/publication/e144c9aa-7f1d-4b4c-8d04-20ceea50274c>.
- Evangelio, C., Rodríguez-González, P., Fernandez-Rio, J., & González-Víllora, S. (2022). Cyberbullying in elementary and middle school students: A systematic review. *Computers & Education*, 176, 104356. <https://doi.org/10.1016/j.compedu.2021.104356>
- Graduate Careers Australia (GCA). (2007). *Snapshot: Graduate outlook 2007*. A summary of the graduate outlook survey. Melbourne, Victoria: Graduate Careers Australia.

- Gilroy, P. (2005). The commercialisation of teacher education: Teacher education in the marketplace. *Journal of Education for Teaching*, 31(4), 275–277. <https://doi.org/10.1080/02607470500280076>
- Goodson, I. (2003). *Professional knowledge, professional lives: Studies in education and change*. Open University Press.
- Grimaldi, P. J., & Karpicke, J. D. (2012). When and why do retrieval attempts enhance subsequent encoding? *Memory & Cognition*, 40(4), 505–513. <https://doi.org/10.3758/s13421-011-0174-0>
- Harvey, L. (2001). Defining and measuring employability. *Quality in Higher Education*, 7(2), 97–109. <https://doi.org/10.1080/13538320120059990>
- Hesketh, A. (2000). Recruiting An Elite? Employers' Perceptions of Graduate Education and Training. *Journal of Education and Work*, 13(1), 245–271. <https://doi.org/10.1080/713676992>
- Hogan, R., Chamorro-Premuzic, T. & Kaiser, R. B. (2013). Employability and career success: Bridging the gap between theory and reality. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 6(1), 3–16. <https://doi.org/10.1111/iops.12001>
- IBM Corp. (2019). *IBM SPSS Statistics for Windows*, Version 26.0.
- Kim, J., & Jung, H. S. (2022). The Effect of Employee Competency and Organizational Culture on Employees' Perceived Stress for Better Workplace. *International journal of environmental research and public health*, 19(8), 4428. <https://doi.org/10.3390/ijerph19084428>
- Korthagen, F. A. J. (2004). In search of the essence of a good teacher: towards a more holistic approach in teacher education. *Teaching and Teacher Education*, 20(1), 77–97. <https://doi.org/https://doi.org/10.1016/j.tate.2003.10.002>
- Krmac, N., Hozjan, D. & Kukanja-Gabrijelčič, M. (2021). Možnosti aktivnega staranja strokovnih delavcev v vzgoji in izobraževanju s postopnim uvajanjem mladih v poklice. *Opportunities for active aging of professionals in education through the gradual introduction of young people into professions*. Univerza na Primorskem.
- Maduka, C. (2014). Postgraduate Education and Human Resources Development in Nigeria. *Journal of Policy and Development Studies*, 9(1), 84–91.
- OECD. (2018). *Preparing our youth for an inclusive and sustainable world*. The OECD PISA global competence framework. OECD Publishing.
- Persson, R. S., Balogh, L. & Joswig, H. (2000). *International handbook of giftedness and talent*. Oxford, UK: Pergamon Press.
- Rothwell A., Jewell S. & Hardie M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior*, 75, 152–161.

- Ruayruay, E., Kirtikara, K., Nopharatana, M., Chomsuwan, K., & Suwannathep, S. (2020). Work-integrated Learning Competencies: A Case Study in a Food Engineering Practice School Program. *International Journal of Instruction*, 13(2), 707-720. <https://doi.org/10.29333/iji.2020.13248a>
- Salas-Velasco, M. (2021). Mapping the (mis)match of university degrees in the graduate labor market. *Journal for Labour Market Research*, 55, 1–23.
- Savickas, M. L. & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661–673.
- Temmerman, N. (2019). When A Degree Just Isn't Enough, Also Offer Upskilling. Retrieved 22 March, 2023 from <https://www.universityworldnews.com/post.php?story=20190304094729650>
- Tomlinson, M. (2012). Graduate Employability: A Review of Conceptual and Empirical Themes. *Higher Education Policy*, 25(4), 407–431. <https://doi.org/10.1057/hep.2011.26>
- Vos, A., Akkermans, J. & van der Heijden, B. (2019). *From occupational choice to career crafting*, 1, 128–142. <https://doi.org/10.4324/9781315674704-9>
- Yorke, M. (2006). *Employability in Higher Education: What It Is, What It Is Not*. York: The Higher Education Academy.
- Zepeda, K. P. (2015). *5 Professional Skills*. *Inside Higher Ed*. Retrieved 14 December, 2022 from: <https://www.insidehighered.com/advice/2015/01/05/essay-five-professional-skills-graduate-students-learn>.
- Željeznov Seničar, M., Kuntarič Hribar, I. & Zupančič, M. (2006). *Kako pomagati otroku do izobrazbe in poklica*. Ljubljana: MIB.