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Workplace Readiness Skills Needed by Graduates of Polytechnics for Employment in Construction Industries in Enugu State

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Abstract

This study evolved workplace readiness skills required by Polytechnic graduates for employment in construction industries in Enugu state. Specifically, it determined essential self-management; interpersonal; critical-thinking; and professionalism skills needed by the graduates for effective performance in the industry. A descriptive survey research design was adopted. Population comprised of 159 employers building construction industry and 38 Building Technology lecturers from two public polytechnics in Enugu State. Data were collected using mean and t-test statistics. Data analysed mean and t-test at a 0.05 level of significance. Findings reveal eight needed self-management skills ($\overline{X}_g \geq 4.80$). These include, among others, maintain punctuality to the work sit ($\overline{X}$ = 4.78). Other findings are 10 interpersonal skills ($\overline{X}_g \geq 4.82$). These including give clear instructions to labourers ($\overline{X}$ = 4.80) and others. Findings also reveal 10 critical-thinking skills ($\overline{X}_g \geq 4.85$). These including among others, innovate solutions when materials are unavailable ($\overline{X}$= 4.88). Further findings are 10 professionalism skills ($\overline{X}_g \geq 4.84$). These include, actively seek training in new construction technologies ($\overline{X}$ = 4.90). Results of the t-tests showed no significant difference between the mean responses of lecturers and employers across all domains ($p > 0.05$), indicating consensus on the importance of these competencies. It was recommended among others, that the identified competencies be systematically integrated into polytechnic curricula to enhance graduates' employability and adaptability in the evolving construction industry.

Keywords: Workplace-Readiness, Skills, Construction, Industry, Self-management, Interpersonal, Critical-thinking, Professionalism.

Introduction

In current rapidly changing work environments, graduates need more than technical expertise to succeed. They must also possess a set of abilities widely known as workplace readiness skills (WRS). These skills, often referred to as employability skills (UK Commission for Employment and Skills [UKCES], 2009), soft skills or 21st-century competencies (World Economic Forum [WEF], 2020), are essential for effective participation in professional settings (Ojo et al., 2022; Okanazu et al., 2024). WRS include

communication, teamwork, problem-solving, adaptability, emotional intelligence, self-management, and professionalism. While technical skills enable individuals to perform specific tasks, WRS support collaboration, project efficiency, and long-term employability (Adepoju & Aigbavboa, 2021). The relevance of WRS spans various sectors such as healthcare, technology, manufacturing, education, and construction. For example, in healthcare, teamwork improves patient outcomes (World Health Organization [WHO], 2018), while in the information technology (IT) sector, problem-solving and adaptability drive innovation (World Economic Forum, 2020).

In the construction industry, WRS are especially critical due to the collaborative and dynamic nature of projects. Coordination among architects, engineers, contractors, and clients requires strong interpersonal and cognitive skills. Van Heerden et al. (2023) emphasized that such competencies support timely and cost-effective project delivery. According to Chan et al. (2021), over 78 percent of construction firms in Sub-Saharan Africa now prioritize communication and teamwork during recruitment. This increasing emphasis highlights a shift in employer expectations and calls for educational reforms. Institutions, particularly polytechnics, must embed WRS into training programs to bridge the gap between academic preparation and workplace demands. Doing so is essential for enhancing graduate employability and responding to the evolving needs of industries globally. WRS are typically classified into four major categories: self-management, interpersonal skills, critical thinking, and professionalism. These dimensions provide a practical structure for understanding the competencies required in the workplace.

Self-management skills relate to how individuals control their behavior, manage responsibilities, and maintain personal standards in professional contexts. These include punctuality, accountability, resilience, emotional regulation, and ethical judgment. In construction, where pressure and risk are common, these attributes are essential for maintaining safety and productivity. Das et al. (2024) reported that 89 percent of Nigerian employers prioritize punctuality and compliance with safety regulations. Similarly, Mu'awiya Abubakar et al. (2021) found that graduates who remain resilient during project delays are significantly more likely to retain employment. Ethical behavior strengthens client trust and supports long-term partnerships, which are critical in competitive construction markets (Windapo et al., 2020). *Interpersonal skills* are closely tied to self-management because maintaining professional relationships depends on traits like accountability and emotional regulation.

Interpersonal skills are central to teamwork and collaboration in construction projects. These projects often involve coordination among architects, engineers, site managers, and clients. Communication, negotiation, empathy, and collaboration are key to ensuring

smooth interaction and conflict resolution (van Heerden et al., 2023). According to Ojo et al. (2022), interpersonal skills are linked to better supervisory performance and higher rates of client retention. Their study found that graduates with strong collaboration skills were 30 percent more likely to move into supervisory roles. Poor communication can lead to misunderstandings, errors, or even client loss. For example, Ishaq et al. (2019) documented a 15 percent annual client loss attributed to weak interpersonal engagement. Despite their importance, such skills are often not emphasized in polytechnic curricula. Aliu and Aigbavboa (2022) suggest adopting interactive learning strategies such as simulations and group exercises to build these competencies**.** *Critical-thinking skills* build on interpersonal skills, especially in team-based environments where professionals must assess options, solve problems, and make time-sensitive decisions.

Critical-thinking skills enable graduates to identify problems, analyze complex information, and develop innovative solutions. These abilities are particularly relevant in construction, where on-site decisions must be made quickly and often under pressure. Olanrewaju et al. (2020) observed that graduates proficient in Building Information Modeling (BIM) and 3D modeling reduced project completion times by 25 percent. The growing interest in green building technologies also illustrates the importance of critical thinking. Adepoju and Aigbavboa (2021) reported an 18 percent cost saving among firms that used recycled materials, an approach requiring both technical and analytical insight. Nwaikpo (2025) found that 68 percent of construction managers in Lagos identified critical-thinking skills as essential for mid-level hires.

Professionalism involves ethical conduct, leadership, continuous learning, and digital fluency. These traits are becoming increasingly important as the construction industry incorporates digital tools and global best practices. Graduates with strong professional values are often more adaptable, better connected, and more likely to advance quickly in their careers. Adewolu Ogwo (2024) noted that those with professional certifications tend to earn more and access better job opportunities. Ebekozien et al. (2024) reported a 20 percent increase in promotions among graduates who participated in mentorship programs. Despite these advantages, professionalism training is not a focus in many Nigerian polytechnics. Bello and Ajao (2024) observed that only 12 percent of these institutions provide modules on digital job search skills or professional networking.

The construction industry plays a critical role in national development by providing infrastructure, creating jobs, and facilitating urban and rural transformation. It includes diverse specializations such as project management, quantity surveying, building technology, structural design, and site supervision. As projects become more complex and service-oriented, there

is a growing need for workers who can combine technical expertise with strong interpersonal and cognitive abilities (Adepoju & Aigbavboa, 2021). In this context, WRS function as adaptive competencies, allowing professionals to handle challenges, manage client expectations, and contribute meaningfully to team objectives (van Heerden et al., 2023). In Nigeria, polytechnics are designed to produce middle-level technical professionals equipped with practical skills in fields such as architectural drawing, construction management, and structural mechanics (Nwaikpo, 2025; Ebekozien et al., 2024). However, there remains a clear disconnect between what is taught in classrooms and what the labor market demands. This misalignment is explained by the Skills Mismatch Theory, which describes the gap between education outcomes and employer expectations as a primary barrier to employment (International Labour Organization [ILO], 2020). Siddique et al. (2022) reported that 63 percent of employers in Nigeria considered WRS deficiencies a significant obstacle when recruiting polytechnic graduates.

Polytechnic education in Nigeria plays a vital role in the national skills development system. It was established to produce middle-level professionals with practical and technical competencies needed for industrial and infrastructural growth (National Board for Technical Education [NBTE], 2021). Construction-related programmes such as Building Technology, Civil Engineering, and Quantity Surveying expose students to workshop practice, industrial attachments, and project-based learning (NBTE, 2021; Ebekozien et al., 2024). However, research shows that many curricula remain largely technical and do not adequately integrate workplace readiness or employability skills required by employers (Bello & Ajao, 2024; Aliu & Aigbavboa, 2022). Consequently, although graduates demonstrate competence in technical drawing, site measurement, and construction management, they often lack essential soft skills such as communication, teamwork, problem-solving, and professionalism, which are highly valued in today's construction industry (Siddique et al., 2022; Adepoju & Aigbavboa, 2021).

Focusing on polytechnic graduates is important because they constitute a large share of Nigeria's construction workforce. Their ability to move from training to professional practice depends not only on technical expertise but also on workplace readiness skills that promote adaptability, innovation, and collaboration (International Labour Organization [ILO], 2020; El Mansour & Dean, 2016). In Enugu State, the expanding construction sector, driven by private investment and infrastructure development, relies heavily on polytechnic-trained personnel for supervisory and technical tasks (Nwaikpo, 2025). Identifying the specific workplace readiness skills required by these graduates remains essential.

Purpose of the Study

The general purpose of this study was to evolve workplace readiness skills required by Polytechnic graduates for employment in construction industries in Enugu State. Specifically, it determined workplace readiness skills required by the graduates in the domains:

1. self-management.
2. interpersonal.
3. critical-thinking.
4. professionalism.

Hypotheses (HOs)

The following null hypotheses were tested at 0.05 level of significance. There is no significant difference between the mean responses of employers and lecturers on the workplace readiness skills required by polytechnic graduates for employment in the construction industries in the following domains:

HO_1: self-management.
HO_2: interpersonal.
HO_3: critical-thinking.
HO_4: professionalism.

Methodology

***Research Design*:** This study employed a descriptive survey research design.

***Area of the Study*:** The research was conducted in two public polytechnics in Enugu State, namely, Enugu State Polytechnic (ESP) and Institute of Management and Technology (IMT) which offer Building Technology programmes. There are 21 registered building construction firms in the State (Enugu State Ministry of Works, Lands, and Housing [ESMWLH], 2024). There are 17 Local Government Areas (LGAs) in the State.

***Population of the Study*:** The study population comprised 197 respondents, including 159 construction industry employers in Enugu State (ESMWLH, 2024) and 38 Building Technology lecturers from the two Polytechnics in the area of the study. The selected employers, drawn from both public and private sectors, included contractors, engineers, and site supervisors who were actively involved in building projects at the time of the study. Most of these employers had at least five years of field experience, held supervisory or managerial roles, and possessed qualifications ranging from diploma to postgraduate level. Lecturer data collected in February 2024 showed that most were male, held bachelor's to doctoral degrees in construction-related fields. Their ranks were from Assistant to Chief Lecturers. They had 3–25 years of teaching experience, and possessed industry experience. The entire population was studied.

***Instrument for Data Collection*:** The instrument for the study was questionnaire adapted from validated scales in the literature to assess workplace readiness skills. It comprised two sections. Section I collected demographic data, while Section II contained 40 items organized under four domains of workplace readiness skills. Self-management skills were measured using 8 items adapted from Fugate and Kinicki's (2008) Personal Competencies Scale. Interpersonal skills were assessed with 10 items adapted from George and

Loosemore's (2019) Construction Teamwork Assessment. Critical-thinking skills were measured with 10 items drawn from Frese et al.'s (2016) Workplace Problem-Solving Inventory. Professionalism skills were assessed using 12 items from Van der Klink et al.'s (2016) Sustainable Employability Scale. All items were rated on a five-point Likert scale, ranging from 'Extremely Needed' (5), 'Somewhat Needed' (4), 'Moderately Needed' (3), and 'Slightly Needed' (2), to 'Extremely Not Needed' (1), indicating the perceived importance of each skill for graduate employability in the construction industry. The instrument was validated by three university experts in Industrial Technical Education. A pilot test conducted with 20 respondents outside the study area yielded a Cronbach's alpha coefficient of 0.91, indicating high internal consistency and reliability

***Method of Data Collection*:** A total of 197 copies of questionnaire were distributed to respondents (159 to employers and 38 to lecturers) by hand with the help of two trained research assistants. A total of 183 copies (147 and 36 from employers and lecturers respectively) were retrieved. The overall retrieval rate was 93 percent.

***Method of Data Analysis*:** Data were analyzed using mean scores and t-tests at 0.05 significance level. The five-point rating scale was interpreted using the following real limit values: Extremely Needed (4.50–5.00), Somewhat Needed (3.50–4.49), Moderately Needed (2.50–3.49), Slightly Needed (1.50–2.49), and Extremely Not Needed (0.50–1.49). For the hypotheses, the decision rule was that a null hypothesis would be rejected if the p-value was less than 0.05, and accepted if the p-value was equal to or greater than 0.05.

Results

Table 1: Mean Responses, Standard Deviations, and t-test Results of Building Technology (BT) Lecturers and Building Construction Industries (BCI) Employers on Self-Management Skills Required by Graduates of Polytechnics for Employment in BCI

S/N	*Self-Management Skills*	$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	R	t	p	D
	Ability to:									
1	maintain punctuality at the work site	4.75	0.45	4.80	0.35	4.78	EN	-1.02	0.310	NS
2	demonstrate honesty in reporting material quality	4.82	0.38	4.72	0.42	4.77	EN	1.45	0.151	NS
3	show resilience during project delays	4.68	0.41	4.85	0.30	4.77	EN	-1.73	0.086	NS
4	adhere to safety protocols without supervision	4.90	0.28	4.88	0.32	4.89	EN	0.42	0.676	NS
5	manage stress under tight deadlines	4.79	0.37	4.81	0.33	4.80	EN	-0.36	0.718	NS
6	maintain personal hygiene on-site	4.73	0.43	4.77	0.36	4.75	EN	-0.58	0.561	NS

Table 1 Continued

7	demonstrate patience with unskilled laborers	4.66	0.47	4.84	0.29	4.75	EN	-1.88	0.063	NS
8	follow ethical standards in procurement processes	4.87	0.31	4.91	0.28	4.89	EN	-0.66	0.511	NS
	Cluster Mean	**4.78**	**0.39**	**4.82**	**0.33**	**4.80**	**EN**	**-1.22**	**0.225**	**NS**

$\bar{X}_1$= Mean of Building Technology Lecturers, $\bar{X}_2$ = Mean of Employers in Building Construction Industry; SD_1= Standard Deviation of Building Technology Lecturers, SD_2= Standard Deviation of Employers in Building Construction Industry, $\bar{X}_2$ = Grand mean, EN = Extremely Needed, R= Remark, t-value = Calculated t-test value, p, value = Probability value, D = Decision on Hypothesis, NS = Not Significant at p > 0.05, Sig = Significant at p < 0.05

Table 1 shows that both lecturers and employers rated self-management skills as *extremely needed*, ($\bar{X}_g$ = 4.80). The Table also reveals no significant difference between the mean responses of the two groups (t = –1.22, p = .225). Consequently, the null hypothesis of no significant difference in their perceptions of self-management skills was retained.

Table 2: Mean Responses, Standard Deviations, and t-test Results of BT Lecturers and BCI Employers on Interpersonal Skills Required by Graduates of Polytechnics for Employment in BCI

S/N	Interpersonal Skills *are ability to:*	$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	R	t	p	D
1	resolve conflicts among subcontractors	4.83	0.34	4.89	0.27	4.86	EN	-1.06	0.292	NS
2	give clear instructions to laborers	4.78	0.39	4.82	0.31	4.80	EN	-0.68	0.499	NS
3	actively listen to client requirements	4.71	0.41	4.79	0.35	4.75	EN	-1.38	0.168	NS
4	collaborate effectively with architects and engineers	4.85	0.32	4.92	0.26	4.89	EN	-1.46	0.147	NS
5	motivate team members during setbacks	4.69	0.44	4.86	0.30	4.78	EN	-1.95	0.053	NS
6	provide constructive feedback to apprentices	4.76	0.37	4.81	0.33	4.79	EN	-0.72	0.472	NS
7	negotiate with suppliers and vendors	4.88	0.29	4.94	0.25	4.91	EN	-1.27	0.206	NS
8	mediate disputes between workers	4.74	0.40	4.83	0.31	4.79	EN	-1.49	0.139	NS
9	build rapport with clients	4.81	0.35	4.89	0.28	4.85	EN	-1.45	0.151	NS
10	delegate tasks effectively	4.72	0.42	4.88	0.29	4.80	EN	-1.94	0.054	NS
	Cluster Mean	**4.78**	**0.37**	**4.86**	**0.30**	**4.82**	**EN**	**-1.51**	**0.133**	**NS**

$\bar{X}_1$= Mean of Building Technology Lecturers, $\bar{X}_2$ = Mean of Employers in Building Construction Industry; SD_1= Standard Deviation of Building Technology Lecturers, SD_2= Standard Deviation of Employers in Building Construction Industry, $\bar{X}_2$ = Grand mean, EN = Extremely Needed, R= Remark, t-value = Calculated t-test value, p, value = Probability value, D = Decision on Hypothesis, NS = Not Significant at p > 0.05, Sig = Significant at p < 0.05

Table 2 shows that all the 10 interpersonal skills as *extremely needed*, with a cluster mean of ($\bar{X}_g$ = 4.82). The Table also shows no statistically significant difference between the mean responses of lecturers and employers (t = –1.51, p = .133). Therefore, the null hypothesis of no significant difference in opinions on interpersonal skills was retained.

Table 3: Mean Responses, Standard Deviations, and t-test Results of BT Lecturers and BCI Employers on Critical-thinking Skills Required by Graduates of Polytechnics for Employment in BCI

S/N	Critical-thinking Skills *are ability to:*	$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	R	t	p	D.
1	innovate solutions when materials are unavailable	4.84	0.33	4.91	0.26	4.88	EN	-1.48	0.142	NS
2	anticipate risks in structural designs	4.77	0.38	4.85	0.31	4.81	EN	-1.35	0.179	NS
3	use BIM/3D modeling tools to optimize workflows	4.89	0.28	4.93	0.25	4.91	EN	-0.87	0.386	NS
4	evaluate cost-quality trade-offs in decision-making	4.75	0.40	4.82	0.34	4.79	EN	-1.26	0.211	NS
5	troubleshoot equipment failures on-site	4.80	0.36	4.88	0.30	4.84	EN	-1.31	0.191	NS
6	adapt designs to environmental constraints	4.73	0.42	4.85	0.32	4.79	EN	-1.86	0.065	NS
7	analyze project delays and propose recovery plans	4.86	0.31	4.90	0.27	4.88	EN	-0.81	0.417	NS
8	integrate sustainable materials into design plans	4.81	0.35	4.89	0.29	4.85	EN	-1.48	0.142	NS
9	interpret complex architectural drawings	4.78	0.39	4.87	0.31	4.83	EN	-1.54	0.125	NS
10	optimize resource allocation to minimize waste	4.85	0.32	4.92	0.27	4.89	EN	-1.33	0.188	NS
	Cluster Mean	**4.81**	**0.35**	**4.88**	**0.29**	**4.85**	**EN**	**-1.49**	**0.139**	**NS**

$\bar{X}_1$= Mean of Building Technology Lecturers, $\bar{X}_2$ = Mean of Employers in Building Construction Industry; SD_1= Standard Deviation of Building Technology Lecturers, SD_2= Standard Deviation of Employers in Building Construction Industry, $\bar{X}_2$ = Grand mean, EN = Extremely Needed, R= Remark, t-value = Calculated t-test value, p, value = Probability value, D = Decision on Hypothesis, NS = Not Significant at p > 0.05, Sig = Significant at p < 0.05

Table 3 shows that both lecturers and employers rated critical-thinking skills as extremely needed, ($\bar{X}_g$ = 4.85). The *t*-test showed no significant difference between the mean responses of lecturers and employers (*t* = –1.49, *p* = .139). Hence, the null hypothesis of no significant difference between the two groups on critical-thinking skills was retained.

Table 4: Mean Responses, Standard Deviations, and t-test Results of BT Lecturers and BCI Employers on Professionalism Skills Required by Graduates of Polytechnics for Employment in BCI

S/N	Professionalism Skills *are ability to:*	$\bar{X}_1$	SD_1	$\bar{X}_2$	SD_2	$\bar{X}_g$	R	t-value	p-value	Dec.
1	actively seek training in new construction technologies	4.87	0.30	4.93	0.26	4.90	EN	-1.32	0.189	NS
2	network with industry professionals for career growth	4.75	0.40	4.85	0.33	4.80	EN	-1.44	0.152	NS
3	adapt skills to green building trends	4.82	0.35	4.90	0.29	4.86	EN	-1.56	0.123	NS
4	document competencies for job applications	4.69	0.43	4.81	0.35	4.75	EN	-1.68	0.096	NS
5	balance short-term tasks with long-term career goals	4.78	0.38	4.86	0.31	4.82	EN	-1.49	0.138	NS
6	participate in professional associations (e.g., NIOB)	4.84	0.33	4.91	0.27	4.88	EN	-1.46	0.147	NS
7	update knowledge on current building regulations	4.88	0.29	4.94	0.25	4.91	EN	-1.42	0.160	NS
8	mentor junior colleagues to enhance team performance	4.80	0.36	4.87	0.30	4.84	EN	-1.38	0.168	NS
9	use digital tools (e.g., LinkedIn) for job opportunities	4.73	0.41	4.85	0.32	4.79	EN	-1.74	0.083	NS
10	invest in certifications	4.86	0.31	4.92	0.27	4.89	EN	-1.35	0.177	NS
11	align skills with emerging industry demands	4.79	0.37	4.88	0.30	4.84	EN	-1.55	0.125	NS
12	seek feedback to improve employability	4.81	0.35	4.89	0.29	4.85	EN	-1.52	0.132	NS
	Cluster Mean	**4.80**	**0.36**	**4.88**	**0.29**	**4.84**	**EN**	**-1.43**	**0.157**	**NS**

$\bar{X}_1$= Mean of Building Technology Lecturers, $\bar{X}_2$ = Mean of Employers in Building Construction Industry; SD_1= Standard Deviation of Building Technology Lecturers, SD_2= Standard Deviation of Employers in Building Construction Industry, $\bar{X}_2$ = Grand mean, EN = Extremely Needed, R= Remark, t-value = Calculated t-test value, p, value = Probability value, D = Decision on Hypothesis, NS = Not Significant at p > 0.05, Sig = Significant at p < 0.05

Table 4 indicates that all 12 professionalism skills were rated as extremely needed, ($\bar{X}_g$ = 4.84). Results of the *t*-test reveal no significant difference between the mean responses of lecturers and employers (*t* = –1.43, *p* = .157).

Consequently, the null hypothesis of no significant difference in perceptions of professionalism skills was retained.

Discussion of Findings

The findings reveal that both Building Technology lecturers and employers in the construction industry in Enugu State identified self-management skills as extremely necessary for employability. Items such as punctuality, honesty, stress management, adherence to safety protocols, and personal hygiene were rated very highly, with grand means around 4.80. These results underscore the high premium placed on individual discipline and work ethic in the Nigerian construction industry. This pattern aligns with evidence that workplace compliance and safety behaviour strongly influence firm outcomes in Nigeria (Adepoju & Aigbavboa, 2021). It also converges with recent local observations that employers expect entry-level staff to demonstrate punctuality and procedural adherence in high-risk settings (Nwaikpo, 2025). Mu'awiya Abubakar et al.'s (2021) emphasis on resilience complements this view by highlighting how emotional regulation supports career continuity in demanding occupations. There is no statistically significant difference between the mean ratings of Building Technology lecturers and employers ($p > .05$). This suggests a common understanding of workplace expectations, which supports calls for more explicit integration of these behaviours into technical curricula (Aliu & Aigbavboa, 2022). Where curriculum reform emphasizes both technical competence and behavioural standards, graduates are better prepared to meet employer expectations (NBTE, 2021).

The results also show that interpersonal skills such as conflict resolution, negotiation, collaboration, and communication are seen as vital to success in the field. These findings are consistent with regional and national studies indicating that communication and teamwork are frequently ranked among employers' top priorities in construction recruitment (Siddique, *et al*, 2022; Adepoju & Aigbavboa, 2021). Van Heerden et al.'s (2023) work on ethical decision-making and multicultural teamwork further supports the role of interpersonal competence in promoting harmony on complex sites. There is no significant difference between lecturers' and employers' mean scores ($p > .05$). The findings are consistent with those of Aliu & Aigbavboa, 2022; Ebekozien, *et al*, 2024. In other words, lecturers and employers are aligned on the interpersonal qualities expected of polytechnic graduates.

Critical-thinking capabilities, including the ability to innovate under pressure, assess risks, interpret technical drawings, and integrate sustainable practices, were rated extremely needed (cluster mean = 4.85). Both groups agreed that such cognitive competencies are indispensable for navigating the dynamic challenges encountered on construction sites. The prominence of BIM and other digital tools in the ratings accords with evidence that digital design competence enhances analytical problem-solving and project planning (Ebekozien et al., 2024). Recent

studies also show that work-integrated learning opportunities foster the type of problem-solving often required in practice (Akinwumi et al., 2024). Hypothesis testing for critical-thinking skills shows no significant differences between lecturers and employers ($p > .05$), indicating broad consensus on the cognitive priorities for graduates, reinforcing the argument that both sectors view analytical and digital competencies as core to employability. The agreement lends support to collaborative curriculum development that reinforces critical-thinking through applied modules and industry-aligned projects (NBTE, 2021; Ebekozien et al., 2024).

Findings on professionalism skills, include networking, mentoring, keeping up with industry trends, and pursuing professional certifications and aligns with recent work linking continuous professional development and association involvement to improved employment outcomes for construction graduates (Bello & Ajao, 2024). Professionalism also underpins organizational adaptability to digitalization and sustainability requirements (Adepoju & Aigbavboa, 2021). The t-test for professionalism skills likewise showed no statistically significant difference between Building Technology lecturers and employers ($p > .05$). The absence of difference implies shared expectations concerning ongoing learning, regulatory awareness, and professional conduct. Because both groups endorse these competencies, there is a strong basis for policies that mainstream professional development and certification pathways within polytechnic programmes (NBTE, 2021; Bello & Ajao, 2024).

The non-significant differences in mean responses of lecturers and employers across the four skills domains are consistent with stipulations on stronger academe–industry linkages (ILO, 2020; Aliu & Aigbavboa, 2022). In practice, these findings suggest that interventions to embed workplace readiness skills into polytechnic programmes would be well received by both educators and employers, increasing the likelihood that such reforms will translate to improved graduate employability.

Conclusion

This study examined the key workplace readiness skills necessary for aspiring construction workers to secure and sustain employment in Enugu State's Building Construction Industry. Drawing on insights from both industry employers and academic lecturers, the findings confirmed that self-management, interpersonal, critical-thinking, and professionalism skills are essential for employability. High consensus across both groups highlighted the importance of punctuality, emotional resilience, ethical conduct, communication, problem-solving, and digital literacy. These results reflect a clear shift in employer expectations: technical skills alone are insufficient without complementary behavioral and cognitive competencies. The study reinforces the need to embed workplace readiness skills into technical education to prepare graduates for the

evolving demands of the construction sector.

Recommendations

Based on the insights gathered, the study recommends the following practical steps:

1. Polytechnics should revise Building Technology programmes to include modules on ethics, emotional intelligence, collaboration, and innovation.
2. Lecturers should be trained in student-centered methods like role-playing, case studies, and simulations to support skill development.
3. Institutions should partner with construction firms to offer internships, workshops, and hands-on training.
4. Industrial training assessments should measure workplace readiness skills alongside technical abilities.
5. Mentorship by industry professionals should be introduced to expose students to real workplace expectations.
6. NBTE should revise Building Technology curriculum standards to align with current employability and industry needs.

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