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An Assessment of Employability of Architecture Graduates from the Employers' Perspective

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Abstract

The technical demands of the architectural profession, which entail a unique blend of design acumen, technical knowledge, and social skills, make it necessary to examine whether architecture programmes efficiently prepare graduates with the particular skills. This research, therefore, assesses the employability of architecture graduates by analyzing the critical competencies required by employers in the Ugandan architectural sector. Using a survey research design, the methodology combined both quantitative and qualitative data collection approaches. Online questionnaires were distributed to employers in the Ugandan architectural industry, comprising architectural companies, construction firms, government agencies, and private developers. Respondents were limited to only those that (had) employ (ed.) architectural graduates from the oldest training institution in Uganda, Makerere University. Data were analysed using descriptive statistical techniques. In the findings, while graduates were found somewhat professional, they still need to be grounded in the profession's norms and values. Respondents also indicated that students from Makerere University were abler to perfume various tasks, in comparison to many other graduates from elsewhere. However, there was a perception of a decline in the overall quality of recent graduates, particularly regarding manual design skills, sketching, and comprehension of building technology. It was further observed that while employers are increasingly emphasising a mixture of practical ability and crucial soft skills, there is an indication of a skills gap between the skills acquired by architecture graduates. The implications from this study point to the need for strengthening the practical and industry-oriented components of architecture training, such as increasing the frequency and quality of site visits, internships, and field-based learning.

Keywords: *Employability, Makerere university, Architecture graduates, Skills gap, Ugandan architectural sector, Curriculum alignment*

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1. Introduction

The current universal economy, which is marked by fast technological developments and huge competition, places a

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strong value on the employability of graduates (Gopal *et al.*, 2024). This is because joblessness and underemployment have become key concerns, prompting institutions of higher learning all over the world to redesign their teaching syllabuses and instructional approaches (Morley, 2001; Johnson and Burden, 2003). The increasing trend of graduate joblessness, as stated by the International Labour Organisation (Kapos, 2013) and Tan and French-Arnold (2012), underlines the earnestness of finding a solution to the issue.

Employability has arisen as a vital element of a country's socio-economic power (Gopal *et al.*, 2024). Employers are increasingly putting emphasis on the competency of workers and their adaptability to fast-changing industry needs (Sato *et al.*, 2021; Anyidoho, 2020). This means technical and non-technical skills must be blended for better results. Several scholars indicate that critical talent deficiencies stress the discrepancy between graduate skills and the demands of employers. According to Khodeir and Nessim (2020), the average talent shortage across the world is at 75%, indicating that some regions are worse off.

In the developed world, there is a consensus that soft skills are critical in the architecture field. However, there is a lack of effective assessment methods for these skills (Maroya *et al.*, 2019). Previous research, such as Sharma (2022) and Shannon (2012) warn of a big gap between academic teaching and industry expectations. Thompson and Song (2021) together with Howlett Brown, (2022) describe what they call the "hidden curriculum" in architecture education, which they say also raises fears about moral configuration and the effect on different student populations. In the UK, Shannon (2012) asserts that employers look at graduate education for architects as a necessary preparation for the employment world, which is also emphasised by the government and students. However, Hesketh (2000), as cited in Shannon (2012), exposed employer discontent with the qualities of university graduates. In the US, García-Álvarez *et al.* (2022) also stresses the significance of basic skills at work, socio skills, and personal-management skills for employability in a changing world of employment. In the same vein, the Australian government underscores the need for skills that enable graduate architects to not only get jobs but also move on within their careers (Franz, 2008). The importance of employability skills is further underscored by the Malaysian Government's Eleventh Malaysia Plan, which prioritises the quality of Technical and Vocational Education and Training (TVET) to produce employable graduates (Gopal *et al.*, 2024).

In the developing world, the challenges associated with the skills-gap in architecture education are multifaceted. In India for instance, Sharma (2022) highlights a big decline in the employability of graduate architects due to gaps in skills. In Sub-Saharan Africa, where graduate joblessness is high, McCowan (2014) observed that company human resource managers often decry the absence of basic practical and convertible skills among architecture graduates. In Nigeria, the economic downturn has strengthened the emphasis on graduate employability. Employers choose candidates with accomplished employability skills, underlining the discrepancy between graduate abilities and industry requirements (Pitan and Adedeji, 2012; Saludin and Salahudin, 2014; Maina and Salihu, 2016). In Uganda, scholars have criticised the impact of the curriculum on youth joblessness, underscoring the need for a wide-ranging study on the relationship between higher education programmes and graduate employability (Ndungutse, 2015; Ntale *et al.*, 2020; Ssembatya and Ngobi, 2015; Sophia and Onen, 2024). This is because the current formal education has interrupted the traditional apprenticeship-based learning, creating a perception of traditional training as substandard (Sophia and Onen, 2024). Despite subsequent efforts to address these challenges, graduate employability remains a pressing issue in the developing world, and Uganda is no exception. Therefore, this study seeks to assess the employability of architecture graduates, with the perspective of employers in Uganda. To achieve this aim, four specific objectives were pursued:

- To analyse the overall experience in employing architecture graduates.
- To ascertain the readiness of architecture graduates in the world of work.
- To establish the key competence levels possessed by the architecture graduates.
- To propose strategies for improving employability of graduate architects.

2. Literature Review

2.1. The Evolution of Architectural Education

Architectural education has traditionally underscored practical learning to prepare graduates for proficient practice (Mari *et al.*, 2019). However, modern-day challenges, including rising student populations, financial constrictions, and

lack of enough facilities, have affected this methodology. As observed by authors such as Mari *et al.* (2019) and Jann (2010), contemporary educational practices often bank on “simulated or virtual” problems and sites, which may not sufficiently reproduce real-world experiences and contextual understanding (Jann, 2010). This can deter students’ capability to apply hypothetical knowledge to real-world, context-specific issues. Besides, it has been claimed that real-life tasks are critical for developing concerted techniques, communication skills, and participatory practices, all of which are essential for future architects (Falk, 2012; Jann, 2013). Falk (2012) stresses that work-based training is a critical factor in linking the gap between academic learning and professional employability.

2.2. The Growing Emphasis on Soft Skills

While past studies have emphasised hard skills and their significance to the employment market (Balcar, 2016), there is an increasing acknowledgement of the role of soft skills in architectural education (Ciappei and Cinque, 2014). It is now broadly acknowledged that graduates require a blend of both hard and soft skills to realise professional achievement (Clarke, 2017). Studies have also showed that soft skills are solid predictors of employability, and their development is seen as a key asset for future professions (Charlton, 2019).

Institutions of higher learning are required to equip students with the essential knowledge and skills for their vocations (Ramalu *et al.*, 2013). Significant soft skills for the world of work are communication, problem-solving, teamwork, decision-making, leadership, critical thinking, time management, and creativity (Lavender, 2019). However, a documented gap happens between the soft skills businesses expect and those possessed by graduates (Singh and Jaykumar, 2019). While soft skills are more difficult to quantify than hard skills (Abujbara and Worley, 2018), employers often give priority to graduates with both skill sets (Maclachlan, 2019).

The growing rate of joblessness among university graduates emphasises the need to assimilate soft skills into higher education. In line with state education values, establishments are encouraged to improve students’ spiritual, emotional, physical, intellectual, and social elements. For instance, the Department of Polytechnic in Malaysia (2011) stresses the significance of applying soft skills in education programs to equip students with necessary knowledge and skills.

Research on soft skills reveals the need to produce graduates with education, skills, creativity, innovation, progressive attitudes, and critical thinking (Hinchliffe and Jolly, 2011; Shakir, 2009). Emphasising the application of these skills in institutions of higher learning is critical for linking the gap between job market demands and graduate competences. Kapsos (2013) recommends approaches to decrease skill disparities, including occupational training, entrepreneurship programs, soft and life skills training, and employer-education institution linkages. Enterprises such as the Soft Skills Modules for Higher Education Institutions developed by the Malaysian Ministry of Education (MOE) in 2006 offer procedures for assimilating soft skills into curricula. Similar efforts have been started in developed countries such as Australia and the United Kingdom (Curtis, 2004).

Investigations have explored soft skills among architecture graduates at various educational levels. Shannon (2012) highlighted vital employability qualities for architecture graduates in Australia, including self-management, communication skills, creativity, enterprise, planning and organization, problem-solving, lifelong learning, and technology. Savage *et al.* (2009) established that Building Environment and Design (BED) stakeholders emphasised sixteen vital soft skills for graduates, including research skills, critical and conceptual thinking, analysis and problem-solving, information literacy, teamwork, adaptability, technical proficiency, ethical awareness, and communication.

2.3. Employability

Employability includes the critical requirements for obtaining and upholding employment. It epitomises the qualities, abilities, and knowledge that labour market applicants must have to work efficiently in the place of work, benefiting themselves, industries, national economies, and the worldwide labour force (Selvadurai *et al.*, 2012). Garavan (1999) defines employability as a person’s ability to gain primary employment, maintain it, and get new work when necessary. Harvey (2001) describes employability as a modern mental agreement between managers and workers, stressing the capacity to recognise and take advantage of on chances. Grip *et al.* (2004) depict it as the ability and preparedness to stay attractive in the employment market by proactively acclimatising to changes in responsibilities and work surroundings. Imren (2006) looks it as a form of work-specific adaptableness that allows persons to identify and grab

job chances. Rothwell *et al.* (2009) defines it as the supposed capability to secure work pertinent to one's qualification level.

Kamal (2006) views employability as the inclination of graduates to display qualities appreciated by employers for effective organizational effectiveness. However, de Oliveira and Guimaraes (2009) stress that many descriptions concentrate only on individual capabilities, abandoning exterior issues such as job accessibility and job market characteristics. Pool and Sewell (2007) argue that employability spreads beyond individual capabilities and educational qualifications, defining it as "having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful" (Pool and Sewell, 2007: 280). They suggest a model encompassing degree subject knowledge, general skills, emotional intelligence, career development learning, and work/life experience. This suggests that university education only does not promise employability, but rather an amalgamation of these elements. However, holding robust discipline-specific skills augments job chances in professional fields such as architecture (Pool and Sewell, 2007). Skilled proficiency includes having the necessary competences projected in a specific field, as defined by professional education goals and practice regulations.

2.4. Employability among Architecture Graduates

Research on architecture graduates' employability often stresses the advantages of job-integrated learning. Franz (2008) asserts that job-integrated learning assimilates hard and soft skills, augmenting graduate characteristics and employability. Savage (2005), as cited in Franz (2008), calls for the importance of job-integrated learning, emphasizing that traditional university learning often undervalues practical experience. Savage (2005) further contends that "practice knowledge is situated" and advocates for "critical engagement with practice" to enrich pre-graduation learning. Savage *et al.* (2009) established acknowledgement between graduates and employers on the prominence of general skills, with universities playing a critical role in developing these skills. However, they also noted a perception that universities are not doing enough to ensure this development.

Drake *et al.* (2003) cite Cowdroy's (1990) research, which emphasised the necessity for higher and more constant skills in architectural training and the absence of agreement between graduates, specialists, and architecture schools on necessary skills. They argue that this issue continued, with schools incapable of pronouncing their graduates' skills and employers displeased with their recruits. Williamson (2008) concurs that companies prefer graduates with practical skills, while academics focus on developing graduate capabilities and lifelong learning skills. Rothwell *et al.* (2009) stresses three components of employability development: possessing employability traits, enhancing self-marketing and career management abilities, and being open to learning and reflection.

Robinson (2000) describes employability skills as basic attributes needed for gaining, upholding, and excelling in a job. They are also defined as skills essential for both gaining obtaining jobs and continuing within an organisation (DEEWR, 2002). Other descriptions stress personal abilities, qualities, and commitment (Archer and Davison, 2008); accomplishments, understandings, and personal characteristics (Pool and Sewell, 2007); skills that cut across all industries and job levels (Bennett *et al.*, 1999); general and non-technical competencies (Yorke, 2006); skills that permit graduates to adjust and boost their employability (Bridgstock, 2009); and the capacity to accomplish engineering-related skills and attributes (Dacre Pool and Sewell, 2007).

Numerous terms are used to define these skills, including transferable skills, generic skills, core skills, and key competencies (Harvey *et al.*, 2002). A mixture of transferable, technical, and subject knowledge is indispensable (Holmes, 2001). Employers stress soft skills, considering they can train professionals for specific technical skills.

2.5. Professional Competencies in Architecture

Professional competencies in architecture (Table 1) are classified into practice-oriented skills, putting focus on design and management (Amos-Abanyie *et al.*, 2014; Kwofie *et al.*, 2016), and education-oriented skills, stressing competencies expected at graduation (AACA, 2015). Design, management, and knowledge competencies are repetitive themes, with CAD/office management skills also being vital (Salleh *et al.*, 2015).

The competency movement, particularly in Australia, has highlighted generic skills to create an elastic workforce (Windsor *et al.*, 2012). Gill (2020) contends that this shift mirrors pressure on universities to produce employable graduates, possibly de-emphasizing higher-order thinking. Badcock *et al.* (2010) highpoint the problem of harmonising

Key Competence in Architecture	Source(s)
Attitude and commitment	Williams <i>et al.</i> (2012), Hinchliffe and Jolly (2011) and Shakir (2009)
Computer Assisted Drawing (CAD) usage	Salleh <i>et al.</i> (2015), Kwofie <i>et al.</i> (2016), Kumar and Bansal (2018) and Oxman (2008)
Teamwork	Deming (2017), Goleman (1998) and Lavender (2019)
Ethical conduct	Evetts (2003) and Friedman and Phillips (2004)

employability skills with discipline-specific knowledge. Australian universities produce graduate qualities allied with stakeholder values (Askland *et al.*, 2012), manipulating curriculum and assessment design.

Assessment and certification are crucial in confirming graduate competency and employability. Williams *et al.* (2012) assert that well-designed assessments guide learning and encourage self-regulation. However, Williams *et al.* (2012) also stress the political, social, and ethical implications of assessment. Stakeholder response informs curriculum updates to ensure importance and address industry ideals (Oraison *et al.*, 2019). Employability skills like teamwork and communication are constantly esteemed, with their significance growing over time (Deming, 2017).

Divergences occur between assessment standards and job listing desires (Oraison *et al.*, 2019). There is increasing call for assimilating employability skills into university assessments (Badcock *et al.*, 2010), with disciplines like nursing, media, science, business, and engineering making efforts to do so (Song and McCreary, 2020; Gill, 2020; Cotronei-Baird, 2020; Burnett *et al.*, 2021).

2.6. Architecture Education in Uganda

In Uganda, Architecture training, at a degree level, is currently offered by three institutions of higher learning: Makerere University, Kyambogo University, and International University of East Africa. However, of these, Makerere University is the oldest, and was the first to start the training of architects in Uganda. The architecture programme at Makerere University is dedicated to providing relevant education and producing skilled professionals (Sophia and Onen, 2024). However, there are increasing concerns on the employability of the architecture graduates within the changing and competitive Ugandan construction industry (Sophia and Onen, 2024; Ntale *et al.*, 2020). While employers are increasingly emphasizing a mixture of practical ability and crucial soft skills (Ramlan and Ngah, 2015; Hurrell, 2016), there is an indication of a skills gap between the skills acquired by Makerere architecture graduates and the demands of the current employment market (Okolie and Yasin, 2017; Azmi *et al.*, 2018).

Precisely, clarity is absent concerning the key skills that employers in the architectural sector deem essential for graduate employability. Current studies often depend on self-reported data from graduates, abandoning the critical view of employers who evaluate these skills (Ssembatya, 2021). Ssembatya and Ngobi (2015) warn that this gap is principally worrying given that Makerere University is mandated to offer education that addresses national and global needs by aligning its curricula to the practical needs of the labour market. If not addressed, this skills gap threatens the ability of Makerere architecture graduates to find jobs and possibly hinders the university's contribution to national development goals. This research therefore is premised on examining whether architecture education efficiently prepares graduates with the particular skills needed for successful assimilation into the industry.

3. Materials and Methods

3.1. Research Approach

This study used a mixed-methods approach, which combines the use of both quantitative and qualitative data (Creswell and Plano, 2018). The justification for this method is to triangulate findings, enhance the legitimacy of the research, and deliver richer perceptions into the dynamics of combining skill requirements and curriculum design (Denzin and Lincoln, 2018). Creswell (2014) asserts that studies involving of qualitative and quantitative approaches give value to the richness of data and representation instead of numbers. A survey design was used to gather quantitative information pertaining to employers' views of the crucial competencies and the configuration of the architecture education. This approach permits for the statistical analysis of data to recognise patterns and trends (Creswell and Plano, 2018).

3.2. Study Population and Sampling Strategy

The study population entailed employers in the Ugandan architectural industry comprising architectural companies, construction firms, government agencies, and private developers. This population is critical as they directly evaluate the skills of architecture graduates. The major informants were the employers as well as the employed graduates. The researchers purposely identified 50 potential employers from which the study used stratified random sampling to choose a sample that represented respondents from diverse segments within the architectural industry. Levy and Lemeshow (2008) assert that stratification ensures proportionate representation based on firm size and sector. A sample of 30 participants was deemed sufficient but 35 participants (one per firm/company/organisation) were reached out to, 31 of whom filled out and completed the online questionnaire, representing a response rate of 87.5%. This included employers with extensive experience and expertise in the architectural sector and architecture graduates.

3.3. Data collection and Analysis

The study used a structured questionnaire to collect data on employers' perceptions of critical skills and their evaluation of the Makerere University architecture education. The questionnaire included closed-ended questions using Likert scales in a multiple-choice format. An open ended question was also included for respondents to comment on Employability of Makerere Architecture graduates, and suggestions for improvement. The research objectives focused on describing 'characteristics' (e.g., employability, readiness, competence, etc) of the unit of analysis, rather than testing hypotheses or drawing causal inferences. As such, the study used descriptive statistics (means, standard deviations, frequencies) to summarise and interpret data. Data were analysed using the Statistical Package for Social Scientists (SPSS) version 26. Habes *et al.* (2021) assert that this software helps to manipulate quantitative data, producing frequencies and measuring relationships between variables. Thematic analysis was used to identify and analyse recurring themes and patterns in qualitative data obtained from the open-ended question. Coding was done to classify data and enable thematic development. The quantitative and qualitative findings were triangulated to deliver an inclusive understanding of the research questions. Qualitative data were used to describe the quantitative findings, providing more context and depth.

4. Results and Discussion

4.1. Demographics of Respondents

Of the 31 respondents who took part in the study (see Figure 1), majority (32.26%) had spent 11-15 years practising as architects, while those who had spent 16-20 years, 21-25 years and 5-10 years as architects each were 22.58%. This

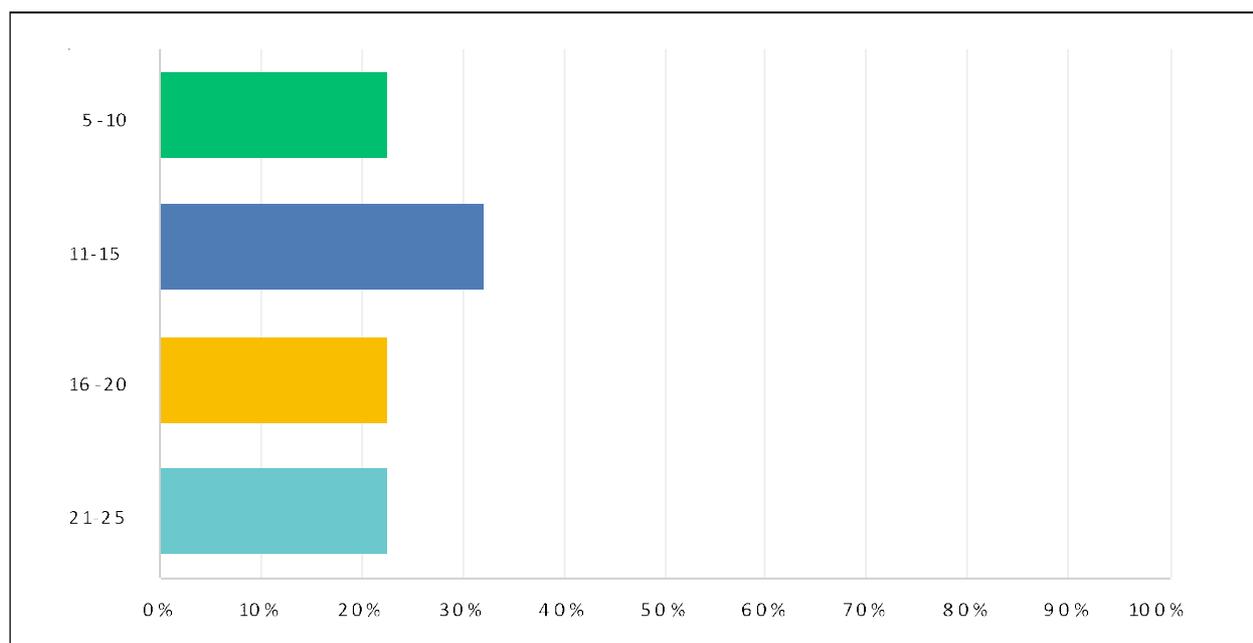


Figure 1: Years of Practice as an Architect

representation of the respondents gives a well-proportioned blend of practicing architects, which presents perceptions formed by various experiences, mentorship roles, and long-term industry engagement. Kolb (1984) asserts that such experienced individuals help to provide informed opinions on the competencies of graduates, which gives the study findings more credibility.

4.2. Employment of Graduates from Makerere University

The study sought to establish whether the respondents had employed graduates from Makerere University over the years (see Figure 2). Majority of the respondents (90.32%) had been employing graduates of architecture from Makerere University over the years. This puts them in the right position to offer well-informed perceptions of the graduates’ enthusiasm for architectural practice. Patton (2002) stresses that reliability of research significantly increases when the data is got from respondents who are directly involved with the subject under investigation

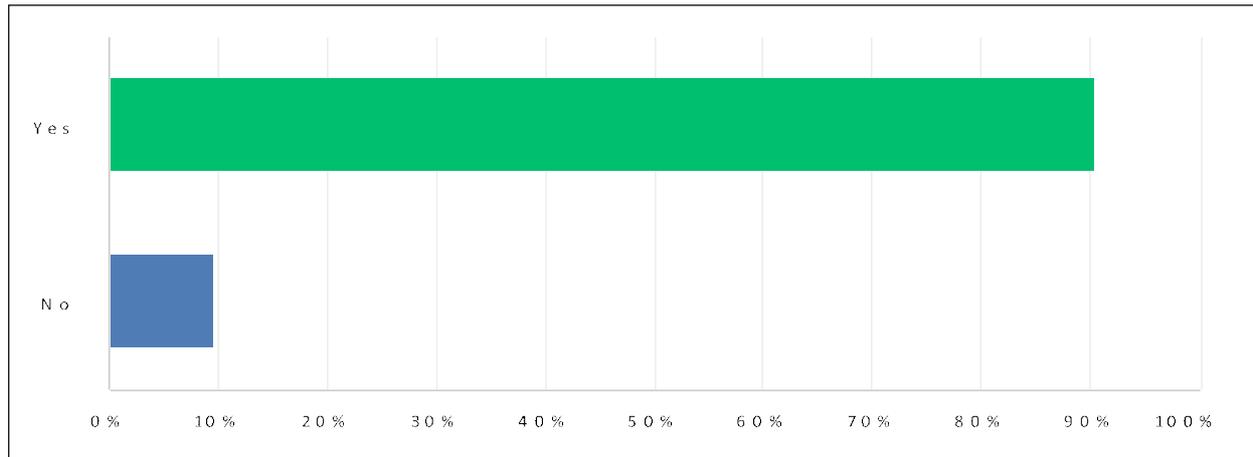


Figure 2: Employment of Graduates from Makerere University

4.3. Overall Experience of Employing Makerere Graduates

The study sought to establish the architects’ experience of employing Makerere University graduates (see Figure 3). Respondents rated the extent to which they perceived the graduates to be professional. From the findings, the majority of the respondents (56.67%) said they found the graduates somewhat professional, 30% said they found them very professional, 6.67% said they found them extremely professional, while another 6.67% said they found them not so

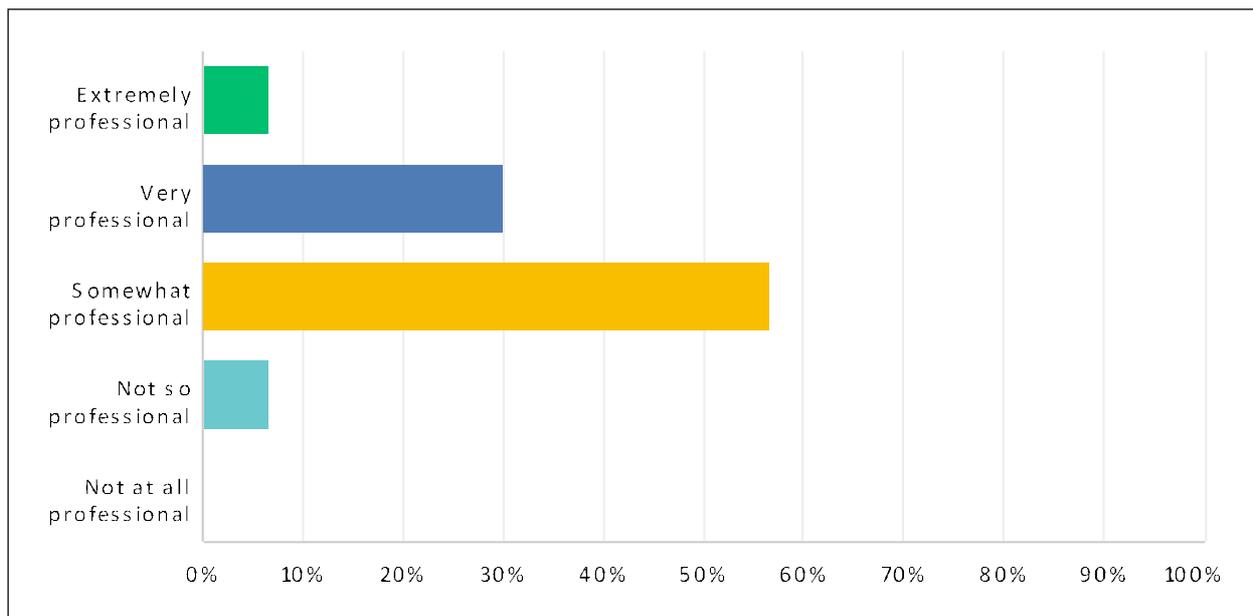


Figure 3: Overall Experience of Employing Makerere Graduates

professional. In Greenwood's (1957) classic model of professionalization, while this pattern of graduates being somewhat professional shows that the graduates have grasped essential technical capabilities, they still need to be grounded in the profession's norms and values. Evetts (2003) adds that real specialised uniqueness grows through engagement in reflective practice and ethical decision making.

Data from the open-ended question suggested that most respondents perceived Makerere graduate architects to be generally good-spirited, eager to learn, and team players.

"We were particularly impressed by the speed with which they caught up with our requirements and practice design standards. We were also in general impressed with their agency and communication skills." (Respondent No. 6).

The respondents further indicated that most of the graduate architects from Makerere University tend to be more competent in the various tasks allocated to them, in comparison to graduates from other institutions. This agrees with earlier findings by Sophia and Onen (2024) that Makerere University, which is the oldest public university in Uganda, has an architecture programme that is dedicated to providing relevant education and producing skilled professionals. However, on the negative side, there was a general observation that the graduates are lacking professionalism in general and they tend to easily get distracted with social media, and hardly satisfied with standard remuneration and as a result easily move on from a job. Others said they are not good at keeping time and have frequent absenteeism without regard to project timelines and team members, and moreover, not being remorseful after the event.

4.4. Readiness of Makerere Students to Work as Graduate Architects

The study sought to establish whether the architects are satisfied with the readiness of Makerere University students to work as graduate architects (see Figure 4). Majority of the respondents (58.62%) said they were satisfied with the readiness of Makerere University students to work as graduate architects, 27.59% were neither satisfied nor dissatisfied, while those who were dissatisfied and very satisfied were both at 6.9%. This agrees with earlier findings by Ramalu *et al.* (2013) who assert that institutions of higher learning are required to equip students with the essential knowledge and skills for their vocations. Schön (1983) in his notion of the "reflective practitioner," stresses the significance of linking theoretical teaching with practical application.

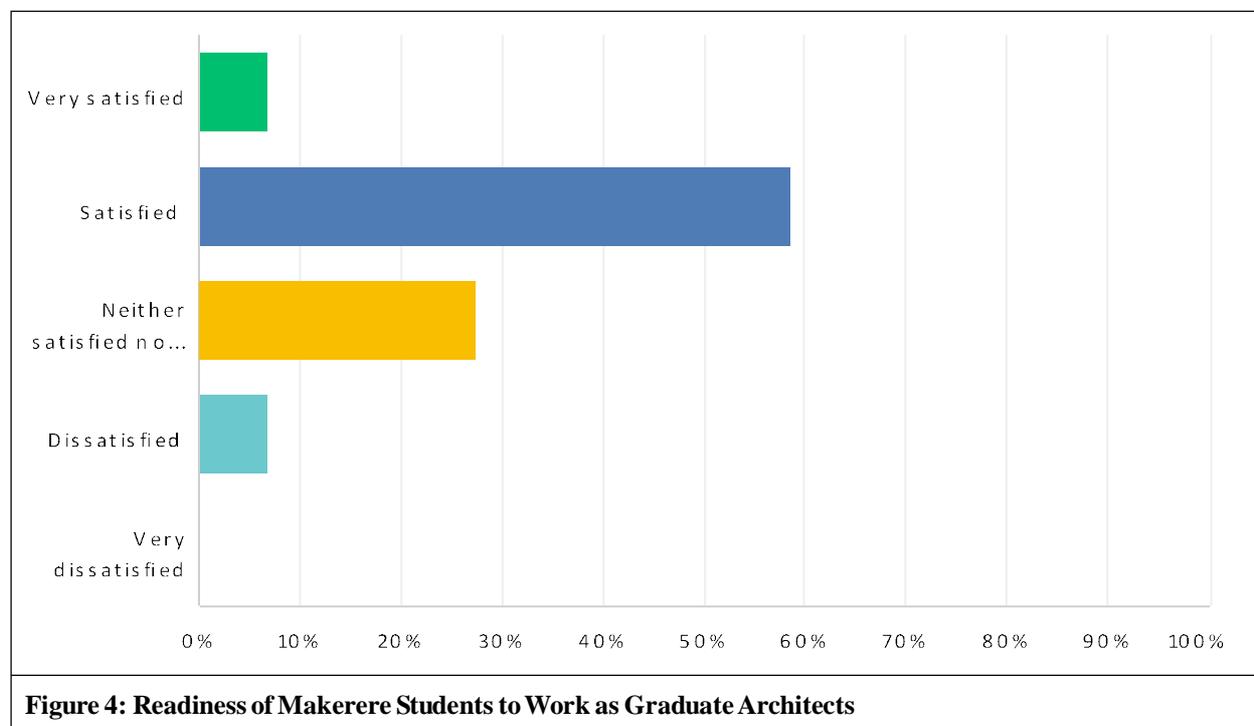


Figure 4: Readiness of Makerere Students to Work as Graduate Architects

However, a significant number of respondents were neutral, which reflects potential cracks in skills such as ethical conduct and teamwork, which are very important attributes in architectural practice. Friedman and Phillips (2004) assert that enthusiasm for professional work goes beyond technical skill to include interpersonal and ethical maturity. Another

interesting observation was that the very satisfied and dissatisfied respondents were all at 6.9%, implying a divergent view among a minority. This could be due to differences in students' enthusiasm and preparation, possibly arising from how they are exposed to practical experience during training. Eraut (2004) stresses that professional capability is meaningfully heightened through workplace learning and contextual application, which Makerere University needs to strengthen.

4.5. Competence of Graduate Architects

The study sought to establish the key competence levels of Makerere graduates in view of their employers, the architects; four competence areas were considered. From Figure 5, the use of Computer Aided Design (CAD) was rated highest at 7.07, implying that the graduates from Makerere University display solid technical ability. This agrees with findings by Kumar and Bansal (2018) that digital ability is increasingly turning into a central proficiency in the engineering sector, with more priority given in training and evaluation. This was followed by attitude and commitment to work, which had an average rating of 6.5, implying that there is a general positive level of dedication. This aligns with Herzberg's Motivation-Hygiene Theory, which posits that commitment can be swayed by both inherent inspiration and the work environment (Herzberg, 1966). Respondents rated Ethical Conduct at 6.2, showing that there is a moderate understanding of professional reliability, but this is room for improvement. This rating mirrors mounting worries around professional honesty, which was highlighted by Carroll and Buchholtz (2014). The two authors call for regular ethical preparation and leadership modelling in workplaces

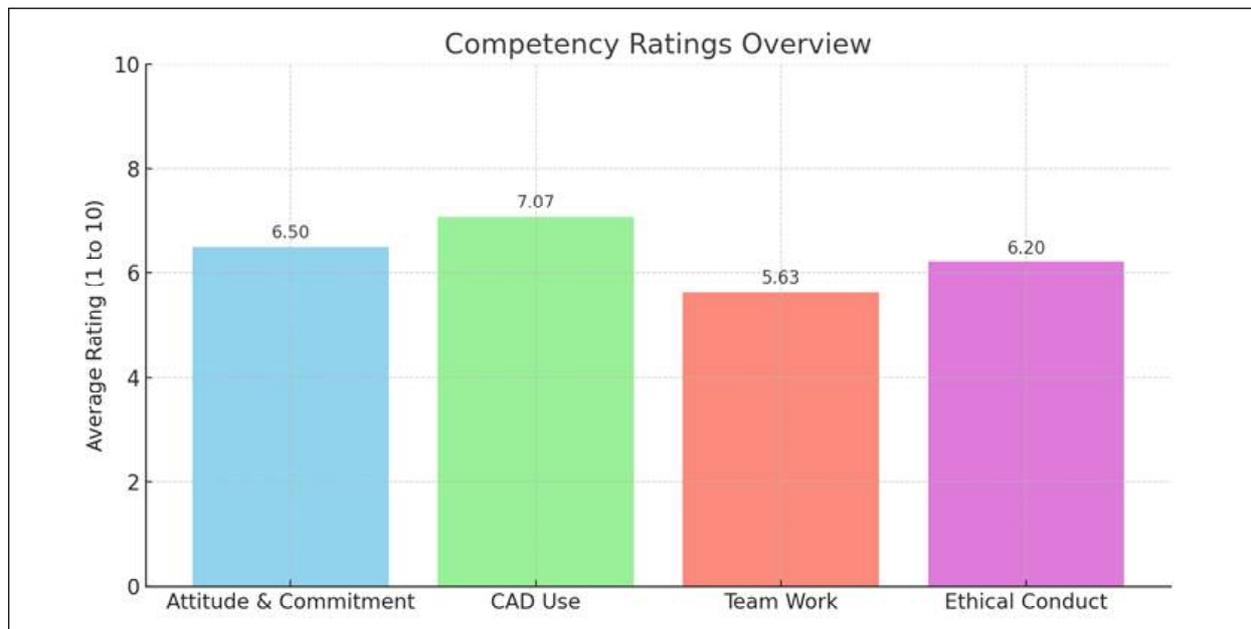


Figure 5: Competence of Makerere Graduate Architects

Teamwork was rated lowest at an average of 5.63, implying a general issue concerning cooperation and interpersonal relations within teams. This calls for the strengthening of soft skills to inculcate a more unified work setting. Goleman (1998) asserts that effective teamwork is entrenched in emotional intelligence—self-awareness, understanding, and communication, which may be lacking or underdeveloped in this group.

From the findings, several respondents said they have observed a general decline in the quality of the architect graduates.

“Whereas it’s not good to generalise, it appears as though the technical quality of the graduates has lowered over the years. It appears there is a gap in most graduates’ ability to sketch and develop architectural concepts by hand before rushing to computer-aided design.” (Respondent 6).

Furthermore, respondents said graduate architects often lack a solid grasp of building technology and the integration of diverse materials and components, despite their enthusiasm for work and strong CAD skills. Achieving their best potential, the respondents say, requires a well-structured learning environment.

It was established that architectural education doesn't adequately prepare students for collaboration with counterparts in the built environment.

"I've personally witnessed the complexities of working alongside structural, mechanical, and electrical engineers. These challenges extend to other experts architects collaborate and study with, including environmentalists, sociologists, and product designers. Additionally, the invaluable contributions of artisans on construction sites should not be overlooked. In my view, the introduction of early collaborative studios could significantly enhance the situation." (Respondent 10).

The open-ended question established that appreciating the importance of detailing is still demanding. Most graduates rely heavily on computers for all design solutions. The respondents said critical thinking before using a computer as an aid must be emphasised to graduates.

"They have no insight to how things are done on site. They appear to only be exposed to theory in school with minimal field work and basics of building construction. This is largely lacking even with the brilliant designers or those that did well in school. They lack the understanding of the entire life cycle of architectural projects. They also lack a strong basis for detailing and project documentation and management." (Respondent 15).

Other respondents also said the graduate architects lack humility to learn and have a sense of entitlement with more focus on pay and position in company or projects, rather than learning and personal growth. They also said graduates need to learn that they need mentorship and be willing to wait and be mentored before they can embark on their registration for corporate membership.

4.6. Strategies for Improving the Employability of Graduate Architects

4.6.1. Promoting Self-Growth

Most respondents concurred that the graduates generally need to appreciate that beyond graduation, there is more time needed for self-growth, not only to pass professional exams but to learn and be able to be wholly independently employable by a standard client. The recommendation that graduates should go for self-growth after graduation is in line with Salama (2015), who argues that architectural education should inculcate a culture of lifetime learning. He explains that architecture is an incessantly changing field, mandating graduates to bring their knowledge and skills up to date even after formal schooling. In the same vein, Schön (1987) emphasises the significance of contemplative training, proposing that specialists progress proficiency through sustained self-directed book learning, especially when facing practical difficulties that education cannot fully solve. There is need for continuous coaching and proper on boarding procedures by firms in order to have a great impact in the field.

4.6.2. Development of Design Skills

The respondents also said that emphasis should be on put on teaching students developing the design skills, thinking outside the box, sketching and working with design concepts, physical modelling, before rushing to CAD. This training should start early as noted by one respondent:

"Training in computer-aided design modules should start much earlier. Internships should be more purposeful, with guidance literature sent to employers on the particular areas of training required." (Respondent 18).

This observation agrees with findings by Till (2005), who emphasises that students' over-reliance on digital tools for CAD affects their creativity and reasoning. Oxman (2008) recommends that digital tools should be balanced with an understanding of when and how they should be used to support, not replace, creative thought.

4.6.3. Development of Soft Skills

Another theme concerned soft skills, where respondents mentioned that in addition to the academic output, it is key to find ways to build a culture of inculcating soft skills into the students as a way of preparing them for the industry. The skills are discipline, responsibility, diligence, good work ethic. It was further suggested that students should be encouraged to collaborate on design with other architects and allied professionals in order to enhance the practical

application of design ideas on site. Koch *et al.* (2002) assert that combined learning situations create practical project situations, augmenting students' understanding of the team-based nature of architectural production

4.6.4. Practical training

Boyer and Mitgang (1996) call for well-structured practical training that covers the academic-professional gap. They endorse well-stated objectives and supervision during internships so that the student benefits expressively. Newton (2003) also posits that arranged mentoring programmes can assist new architects to contribute more expressively in practice. One respondent asserted that:

“Makerere University needs to work on site visits/ practicals so that the students understand how things are built/ come together from pen to practical execution. No point being good in design when your design shall never be built.” (Respondent 20).

5. Conclusion

Graduate employability remains a pressing issue in the developed, and developing world, alike. This study sought to assess the employability of architecture graduates, focussing on Makerere University, Uganda. Opinions were sought from a diverse pool of experienced architects, and practitioners in the Uganda architecture industry. Information was sought on the overall experience in employing architecture graduates, readiness of the graduates to work, and an assessment of the key competencies they possess. A significant majority of the respondents had employed Makerere University architecture graduates. This reinforces the relevance and industry presence of these graduates in the Ugandan architectural landscape. While many employers found the graduates to be enthusiastic, collaborative, and quick to adapt, the overall professional assessment was largely “somewhat professional.” There were concerns regarding graduates' maturity, ethical behaviour, and consistency, indicating that while technical training is adequate, professional grooming is lacking.

Though over half of the respondents were satisfied with the readiness of Makerere students to enter the workforce, a notable portion remained neutral or dissatisfied. This suggests that while graduates show technical promise, soft skills and workplace adaptability remain areas of concern. Graduates were rated highest in CAD proficiency, showing strength in technical digital skills. However, lower scores in teamwork, ethical conduct, and sketching highlight deficiencies in soft skills, collaboration, and hands-on understanding of the design process.

There is a perception of a decline in the overall quality of recent graduates, particularly regarding manual design skills, sketching, and comprehension of building technology. This points to a growing gap between academic training and the practical demands of the industry. Respondents highlighted that many graduates struggle to collaborate effectively with other professionals in the built environment. There is also a lack of exposure to site-based learning, which impedes understanding of real-world construction and teamwork dynamics.

Recommendations

To improve the employability and professional readiness of architecture graduates from Makerere University, it is imperative to strengthen the practical and industry-oriented components of their training. This includes increasing the frequency and quality of site visits, internships, and field-based learning to help students better understand the practical aspects of construction, building technologies, and the integration of various systems and materials. The introduction of collaborative design studios early in the academic programme would also foster essential interdisciplinary skills, allowing students to learn how to work effectively with engineers, environmentalists, artisans, and other built environment professionals.

Moreover, the current curriculum needs to strike a more effective balance between manual and digital design methods. Emphasis should be placed on sketching, concept development, and physical model-making to build foundational design thinking before students become reliant on Computer-Aided Design (CAD) tools. While CAD remains important, it should be presented as a support tool rather than a replacement for creativity and spatial reasoning.

Another critical area is the development of soft skills and ethical grounding. Modules that are focused on professional ethics, humility, emotional intelligence, responsibility, and teamwork should be embedded into the training process.

Reflective practice activities and mentorship opportunities can also help foster a deeper understanding of professional behavior and self-awareness among students.

Students must also be encouraged to adopt a mind-set of lifelong learning. There should be a cultural shift within the architecture programme to emphasize that graduation marks the beginning of a professional journey rather than the end. Structured mentorship programmes facilitated in partnership with architectural firms can support this transition, offering graduates guidance, feedback, and an appreciation of the need for experience before pursuing professional registration.

Internships need to be more structured and intentional. Clear objectives should be set for student placements, and employers should be guided on how to help students gain practical and transferable skills. Enhancing onboarding procedures will ensure that fresh graduates are gradually and meaningfully integrated into professional teams.

Addressing issues related to professionalism is also essential. Students should be coached to develop a stronger sense of punctuality, respect for project timelines, willingness to learn, and team loyalty. These traits are vital for success in the collaborative environment of architectural practice. A continuous feedback mechanism between academia and industry could help ensure that emerging employer concerns are incorporated into academic training.

Encouraging interdisciplinary and collaborative learning is vital in preparing students for the real-world demands of architecture. Design projects that require input from multiple disciplines should be promoted to help students appreciate the value of teamwork and integrated thinking. This approach mirrors the realities of architectural practice, where success often depends on the ability to collaborate with diverse professionals.

Finally, the relationship between the university and the architectural industry should be strengthened through institutional partnerships. A permanent advisory board composed of industry professionals could provide ongoing input into curriculum development and training approaches. Conducting annual surveys with employers of graduates would also help track evolving skill requirements and inform continuous curriculum refinement.

References

- Abujbara, M. and Worley, J. (2018). [Quantifying Soft Skills: Challenges and Opportunities](https://doi.org/10.4236/jhrss.2018.62006). *Journal of Human Resources and Sustainability Development*, 6(2), 90-100. <https://doi.org/10.4236/jhrss.2018.62006>
- Amos-Abanyie, S., Acheampong, E. and Boakye, K.O. (2014). [Professional Competencies and Skills for Architecture Graduates: A Study in Ghana](https://doi.org/10.21315/jcdc2014.19.1.5). *Journal of Construction in Developing Countries*, 19(1), 77-92. <https://doi.org/10.21315/jcdc2014.19.1.5>
- Anyidoho, N.A. (2020). [Skills or Credentials: Comparing the Perspectives of Degree and Non Degree Holding Graduates on the Value of Higher Education](https://doi.org/10.4236/jhe.2020.181007). *Journal of Higher Education in Africa*, 18(1), 67-91.
- Archer, W. and Davison, J. (2008). [Graduate Employability: The Views of Employers](https://www.cifhe.ac.uk/publications/graduate-employability-the-views-of-employers/). Council for Industry and Higher Education, London.
- Askland, H.H., Hjort, K. and Vold, T. (2012). [Graduate Qualities in Australian Universities: Aligning Curriculum with Stakeholder Expectations](https://doi.org/10.1080/00137588.2012.717649). *Higher Education Research & Development*, 31(4), 479-492.
- Australian Architecture Accreditation Council (AACA). (2015). [Accreditation of Australian Architecture Programs](https://www.aaca.org.au/). AACA.
- Azmi, I.A.G., Hashim, R.C. and Yusoff, Y.M. (2018). [The Importance of Critical Thinking Skills in Higher Education](https://doi.org/10.7176/JEP/9-8-01). *Journal of Education and Practice*, 9(8), 1-6. <https://doi.org/10.7176/JEP/9-8-01>
- Badcock, P.B.T., Pattison, P.E. and Harris, K.-L. (2010). [Developing Generic Skills through University Study: A Study of Arts, Science and Engineering in Australia](https://doi.org/10.1007/s10734-010-9308-8). *Higher Education*, 60(4), 441-458. <https://doi.org/10.1007/s10734-010-9308-8>
- Balcar, J. (2016). [The Importance of Soft Skills in the Labor Market: Employers' and Graduates' Perspectives](https://doi.org/10.1016/j.sbspro.2016.07.136). *Procedia – Social and Behavioral Sciences*, 229, 174-181. <https://doi.org/10.1016/j.sbspro.2016.07.136>

- Bennett, N., Dunne, E. and Carre, C. (1999). *Patterns of Core and Generic Skill Provision in Higher Education*. Higher Education Council.
- Boyer, E.L. and Mitgang, L.D. (1996). *Building Community: A New Future for Architecture Education and Practice*. The Carnegie Foundation for the Advancement of Teaching.
- Bridgstock, R. (2009). *The Graduate Attributes we've Overlooked: Enhancing Graduate Employability through Career Management Skills*. *Higher Education Research & Development*, 28(1), 31-44. <https://doi.org/10.1080/07294360802444347>
- Burnett, J., Roberts, P. and Wright, L. (2021). *Embedding Employability in STEM Curricula: Approaches and Challenges*. *Journal of STEM Education*, 22(4), 45-52.
- Carroll, A.B. and Buchholtz, A.K. (2014). *Business and Society: Ethics, Sustainability, and Stakeholder Management* (9th Edition), Cengage Learning.
- Charlton, P. (2019). *Preparing Students for Future Professions: The Essential Role of Soft Skills*. *Journal of Vocational Education & Training*, 71(1), 102-117. <https://doi.org/10.1080/13636820.2018.1464336>
- Ciappei, C. and Cinque, M. (2014). *The Role of Soft Skills in Architectural Education*. *Journal of Engineering and Architecture*, 2(3), 45-56.
- Clarke, M. (2017). *Rethinking Graduate Employability: The Role of Soft Skills*. *Higher Education, Skills and Work-Based Learning*, 7(3), 254-265. <https://doi.org/10.1108/HESWBL-08-2016-0056>
- Cotronei-Baird, V. (2020). *Curriculum Innovation for Employability: Lessons from Nursing Education*. *Nurse Education Today*, 85, 104279. <https://doi.org/10.1016/j.nedt.2019.104279>
- Creswell, J.W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (4th Edition), Sage Publications.
- Creswell, J.W. and Plano Clark, V.L. (2018). *Designing and Conducting Mixed Methods Research* (3rd Edition), Sage Publications.
- Cowdroy, R. (1990). *Skills and Knowledge in Architectural Education*. *Journal of Architectural Education*, 44(1), 12-18. <https://doi.org/10.1080/10464883.1990.10758513>
- Curtis, S. (2004). *The Integration of Employability Skills in Higher Education: Lessons from Australia and the UK*. *Journal of Education and Work*, 17(3), 319-332. <https://doi.org/10.1080/1363908042000289417>
- Dacre Pool, L. and Sewell, P. (2007). *The Key to Employability: Developing a Practical Model of Graduate Employability*. *Education + Training*, 49(4), 277-289. <https://doi.org/10.1108/00400910710754435>
- de Oliveira, E.D. and de Castro Guimarães, I. (2009). *Employability through Curriculum Innovation and Skills Development: A Portuguese Case Study*. *Higher Education Management and Policy*, 22(2), 1-20. <https://doi.org/10.1787/hemp-22-5kmjxqk7xq6r>
- Deming, D.J. (2017). *The Growing Importance of Social Skills in the Labor Market*. *Quarterly Journal of Economics*, 132(4), 1593-1640.
- Department of Education, Employment and Workplace Relations (DEEWR). (2002). *Employability Skills for the Future*. Commonwealth of Australia, Canberra.
- Department of Polytechnic Malaysia. (2011). *Soft Skills Development Framework for Polytechnic Students*. Ministry of Higher Education Malaysia.
- Drake, L., Guile, D. and Young, M. (2003). *The Role of Higher Education in Preparing Graduates for the Workplace: The Case of Architectural Education*. *Journal of Education and Work*, 16(1), 51-67.
- Eraut, M. (2004). *Informal Learning in the Workplace*. *Studies in Continuing Education*, 26(2), 247-273. <https://doi.org/10.1080/158037042000225245>

- Evetts, J. (2003). *The Sociological Analysis of Professionalism: Occupational Change in the Modern World.* *International Sociology*, 18(2), 395-415. <https://doi.org/10.1177/0268580903018002006>
- Falk, A. (2012). *Enhancing the Team Experience in Service Learning Courses.* *Journal for Civic Commitment*, 18, 1-16.
- Franz, J. (2008). *Enhancing Employability through Job-Integrated Learning: A Study of Architecture Graduates.* *Australian Journal of Career Development*, 17(2), 20-28.
- Friedman, S. and Phillips, M. (2004). *Continuing Professional Development: Developing a Vision.* RoutledgeFalmer.
- García Álvarez, J., Vázquez Rodríguez, A., Quiroga Carrillo, A. and Priegue Caamaño, D. (2022). *Transversal Competencies for Employability in University Graduates: A Systematic Review from the Employers' Perspective.* *Education Sciences*, 12(3), Article 204.
- Garavan, T.N. (1999). *Employability, the Emerging New Deal?.* *Journal of European Industrial Training*, 23(1), 4-12.
- Greenwood, E. (1957). *Attributes of a Profession.* *Social Work*, 2(3), 45-55. <https://doi.org/10.1093/sw/2.3.45>
- Gill, J. (2020). *The Employability Imperative: Challenges in Balancing Skills Development and Higher-Order Thinking in Universities.* *Studies in Higher Education*, 45(8), 1627-1640.
- Goleman, D. (1998). *Working with Emotional Intelligence,* Bantam Books.
- Gopal, A., Dhot, B.S. and Kaur, J. (2024). *Preparing Architecture Students for the Workforce: A Review of Essential Skills.* *International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS).* <https://doi.org/10.51583/IJLTEMAS>
- Grip, A.D., Loo, J.V. and Sanders, J. (2004). *The Industry Employability Index: Taking Account of Supply and Demand Characteristics.* *International Labour Review*, 143(3), 211-233.
- Habes, M., Al-Tamimi, H. and Khasawneh, R. (2021). *Using Statistical Software for Quantitative Data Analysis: Applications in Social Science Research.* *Journal of Educational and Social Research*, 11(2), 45-54. <https://doi.org/10.36941/jesr-2021-0023>
- Harvey, L., Locke, W. and Morey, A. (2002). *Enhancing Employability, Recognising Diversity: Making Links between Higher Education and the World of Work.* *Quality in Higher Education*, 8(2), 131-138. <https://doi.org/10.1080/1353832022000013511>
- Harvey, L. (2001). *Defining and Measuring Employability.* *Quality in Higher Education*, 7(2), 97-109. <https://doi.org/10.1080/13538320120059990>
- Howlett Brown. (2022). *The Bartlett School of Architecture Environmental Investigation Report.* University College London. https://www.ucl.ac.uk/bartlett/sites/bartlett/files/the_bartlett_school_of_architecture_environmental_investigation_report_june_2022p_6.pdf
- Herzberg, F. (1966). *Work and the Nature of Man.* World Publishing Company.
- Hesketh, A.J. (2000). *Recruiting an Elite? Employers' Perceptions of Graduate Education and Training.* *Journal of Education and Work*, 13(3), 245-271. DOI:/ 10.1080/713676992
- Hinchliffe, G.W. and Jolly, A. (2011). *Graduate Identity and Employability.* *British Educational Research Journal*, 37(4), 563-584. <https://doi.org/10.1080/01411926.2010.482200>
- Holmes, L. (2001). *Reconsidering Graduate Employability: The "Graduate Identity" and Employability.* *Quality in Higher Education*, 7(2), 111-119.
- Hurrell, S.A. (2016). *Rethinking the Soft Skills Deficit Blame Game: Employers, Skills Withdrawal and the Reporting of Soft Skills Gaps.* *Human Relations*, 69(3), 605-628. <https://doi.org/10.1177/0018726715591636>
- Imren, M. (2006). *A Review of Literature on Employability Skill Needs in Engineering.* *European Journal of Engineering Education*, 31(6), 637-650.

- Jann, B. (2010). When Learning about the Real World is Better Done Virtually: A Study of Substituting Computer Simulations for Laboratory Equipment. *Physical Review Special Topics-Physics Education Research*, 1(1), 010103. <https://doi.org/10.1103/PhysRevSTPER.1.010103>
- Johnson, S. and Burden, T. (2003). *Young People, Employability and the Induction Process*. Joseph Rowntree Foundation. <https://www.jrf.org.uk/young-people-employability-and-the-induction-process>
- Kamal Khir (2006). Training Employable Graduates: Innovation in Training Methodology. In *Challenges in Technical Education and Training: Enhancing Employability among Graduates*, 28-29, National Conference on Continuing Technical Education & Training, Batu Pahat, Johor, Malaysia.
- Kapsos, S. (2013). Economic Class and Labour Market Inclusion: Poor, Vulnerable and Middle Class Workers in Developing Asia and the Pacific (ILO Working Paper). International Labour Organization. https://www.ilo.org/publications/WCMS_215129/lang—en/index.htm
- Khodeir, L.M. and Nessim, A.A. (2020). Changing Skills for Architecture Students' Employability: Analysis of Job Market versus Architecture Education in Egypt. *Ain Shams Engineering Journal*, 11(3), 811-821. <https://doi.org/10.1016/j.asej.2019.11.006>
- Kolb, D.A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Prentice Hall, Englewood Cliffs, NJ.
- Koch, D., Gross, M. and Moloney, J. (2002). Learning by Doing: Integrating Collaborative Projects in Architectural Education. *Journal of Architectural Education*, 56(4), 33-42. <https://doi.org/10.1162/104648802320634553>
- Kumar, S. and Bansal, A. (2018). Digital Skills in Engineering Education: Bridging the Gap between Industry Requirements and Graduate Capabilities. *International Journal of Engineering Education*, 34(5), 1478-1487. <https://doi.org/10.1108/IJEE-04-2018-0215>
- Kwofie, T.E., Botchway, E.A. and Agyekum, K. (2016). Towards Meeting the Required Competencies for the Delivery of Architecture Programmes in Ghana. *Journal of Science and Technology*, 36(1), 84-96. <https://doi.org/10.4314/just.v36i1.8>
- Lavender, D. (2019). *Fostering Critical Soft Skills of Graduates for Employability*. IGI Global. <https://doi.org/10.4018/978-1-7998-3703-6>
- Levy, P.S. and Lemeshow, S. (2008). *Sampling of Populations: Methods and Applications* (4th Edition), John Wiley & Sons.
- Maina, J.J. and Salihu, M.M. (2016). An Assessment of Generic Skills and Competencies of Architecture Graduates in Nigeria. *African Journal of Engineering and Technology Studies*, 9(1), 30-41. <https://doi.org/10.4314/ajets.v9i1.4>
- Mari, T.S., Srirangam, S., Gunasagaran, S., Kuppusamy, S. and Ang, F.L. (2019). Architecture Graduate Work Readiness: The Gap between Learning and Employability. *IOP Conference Series: Materials Science and Engineering*, 636(1), 012010. <https://doi.org/10.1088/1757-899X/636/1/012010>
- Maroya, A., Matthewson, G. and Wallis, L. (2019). *Architectural Education and the Profession in Australia and New Zealand*. Architects Accreditation Council of Australia, December.
- Maclachlan, M. (2019). Graduate Employability: A Review of Conceptual and Empirical Themes. *Higher Education*, 74(4), 1-17. <https://doi.org/10.1007/s10734-016-0110-6>
- McCowan, T. (2014). *Can Higher Education Solve Africa's Job Crisis? Understanding Graduate Employability in Sub-Saharan Africa*. British Council. https://www.britishcouncil.org/sites/default/files/graduate_employability_in_ssa_final-web.pdf
- Morley, L. (2001). Producing New Workers: Quality, Equality and Employability in Higher Education. *Quality in Higher Education*, 7(2), 131-138.
- Newton, D.P. (2003). Mentoring in Professional Education: Supporting New Architects. *Journal of Education and Work*, 16(2), 203-219. <https://doi.org/10.1080/1363908032000088633>

- Ndungutse, D. (2015). *Tracer Study for 1980-2001 Graduates of the Faculty of Medicine*. <https://pdd.mak.ac.ug/wp-content/uploads/2018/11/Tracer-Study-Report-Medicine.pdf>
- Ntale, D.P., Ssempebwa, J., Musisi, B., Musoke, G.G., Kimoga, J. and Mugimu, C.B. (2020). *Gaps in the Structuring of Organizations in the Graduate Employment Context in Uganda*. *Journal of Organization Design*, 9(3). <https://doi.org/10.1186/s41469-020-0066-5>
- Okolie, U.C. and Yasin, A.M. (Eds.). (2017). *Technical Education and Vocational Training in Developing Nations*. IGI Global. <https://doi.org/10.4018/978-1-5225-1811-2>
- Oraison, A., Konjarski, L. and Howe, S. (2019). *Enhancing Graduate Employability of Business School Students through the Development of Industry-Specific Skills: A Case Study*. *Education + Training*, 61(9), 1120-1134. <https://doi.org/10.1108/ET-07-2018-0146>
- Oxman, R. (2008). *Digital Architecture as a Challenge for Design Pedagogy: Theory, Knowledge, Models and Medium*. *Design Studies*, 29(2), 99-120. <https://doi.org/10.1016/j.destud.2007.12.002>
- Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods* (3rd Edition), Sage Publications, Thousand Oaks, CA.
- Pitan, O.S. and Adedeji, S.O. (2012). *Skills Mismatch among University Graduates in the Nigerian Labour Market*. *Journal of US-China Education Review*, 2(1), 90-98. <https://doi.org/10.17265/1548-6613/2012.01.010>
- Pool, L.D. and Sewell, P. (2007). *The Key to Employability: Developing a Practical Model of Graduate Employability*. *Education + Training*, 49(4), 277-289. <https://doi.org/10.1108/00400910710754435>
- Ramalu, S.S., Subramaniam, S. and Ramalu, S.R. (2013). *Higher Education and Employability: The Role of Higher Education Institutions in Equipping Students with Essential Knowledge and Skills for their Chosen Vocations*. *International Journal of Academic Research in Business and Social Sciences*, 3(5), 1-10.
- Ramlan, S.N. and Ngah, N.A. (2015). *Employability Skills in Higher Education: A Review of the Literature*. *Procedia - Social and Behavioral Sciences*, 204, 92-98. <https://doi.org/10.1016/j.sbspro.2015.08.116>
- Robinson, J.P. (2000). *Employability Skills: An Overview*, National Centre for Vocational Education Research.
- Rothwell, A., Jewell, S. and Hardie, M. (2009). *Self-Perceived Employability: Investigating the Responses of Post-Graduate Students*. *Journal of Vocational Behavior*, 75(2), 152-161. <https://doi.org/10.1016/j.jvb.2009.05.002>
- Salleh, R., Yusoff, M.A.M., Harun, H. and Memon, M.A. (2015). *Gauging Industry's Perspectives on Soft Skills of Graduate Architects: Importance vs Satisfaction*. *Global Business & Management Research*, 7(2), 55-66.
- Saludin, M. and Salahudin, N. (2014). *The Relationship between Employability Skills and Job Mismatch Towards Graduates' Unemployment*. *Information Management and Business Review*, 15(3), 96-104. <https://doi.org/10.22610/imbr.v15i3.12921>
- Salama, A.M. (2015). *Spatial Design Education: New Directions for Pedagogy in Architecture and Beyond*. Ashgate, Farnham, UK.
- Sato, T., Kataoka, C., McKay, C. and colleagues. (2021). *Teaching Sexuality Education to Secondary Students in Japan: Reflections from Japanese Health Education Teachers*. *Sex Education*. Advance online publication. <https://doi.org/10.1080/14681811.2021.1990432>
- Savage, J. (2005). *Practice Knowledge: Situated Learning and Professional Development*. *Journal of Workplace Learning*, 17(3), 149-159. <https://doi.org/10.1108/13665620510591365>
- Savage, S.M., Davis, R.M. and Miller, E. (2009). *Exploring Graduate Transition from University to the Workplace: Employer, Academic and Graduate Perspectives*. In *34th AUBEA Annual Conference: Managing Change – Challenges in Education and Construction for the 21st Century*, Barossa Valley, South Australia.
- Selvadurai, S., Ah Choy, E. and Maros, M. (2012). *Generic Skills of Prospective Graduates from the Employers*. *Asian Social Science*, 8(12), 295-303. <https://doi.org/10.5539/ass.v8n12p295>

- Ssembatya, A.V. and Ngobi, K.R. (2019). The Employability Status of Makerere University Graduates. *Journal of Education and Practice*, 10(6), 79-87. <https://doi.org/10.7176/JEP/10-6-11>
- Ssembatya, D. (2021). Employer Expectations of Graduate Employability Skills: A Qualitative Study. *Journal of Vocational Education and Training*, 73(1), 1-18. <https://doi.org/10.1080/13636820.2020.1829381>
- Shannon, S.J. (2012). Employers' Perspectives on Employability Attributes of Architecture Graduates. *Creative Education*, 3(1), 6-11. <https://doi.org/10.4236/ce.2012.31002>
- Sharma, Y.S. (2022). Universities Under Scanner for Awarding Degrees. *The Economic Times News*.
- Shakir, R. (2009). Soft Skills at the Malaysian Institutes of Higher Learning. *Procedia - Social and Behavioural Sciences*, 1(1), 313-318. <https://doi.org/10.1016/j.sbspro.2009.01.057>
- Schön, D.A. (1987). *Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Professions*. Jossey-Bass, San Francisco, CA.
- Singh, A. and Jaykumar, P. (2019). Key Soft Skills Required for Youth Employment in the Service Sector. *Education and Training*, 61(4), 482-497.
- Song, H. and McCreary, L.L. (2020). New Graduates' Perspectives on their Nursing Education and Transition to Practice. *Teaching and Learning in Nursing*, 15(2), 88-92. <https://doi.org/10.1016/j.teln.2019.11.007>
- Sophia, G. and Onen, D. (2024). Curriculum Alignment and Graduate Employability: A Comprehensive Exploration at Makerere University. *East African Journal of Education Studies*, 7(4), 712-727. <https://doi.org/10.37284/eajes.7.4.2464>
- Tan, L.C. and French-Arnold, E. (2012). Employability of Graduates in Asia: An Overview of Case Studies. In UNESCO (Ed.), *Graduate Employability in Asia*, 1-4, UNESCO Bangkok, Asia and Pacific Regional Bureau for Education, Bangkok.
- Thompson, J., Tregloan, K., Soccio, P. and Song, H. (2021). Dual Delivery Design Studios: Exploring Design Learning for Hybrid Cohorts. *Design and Technology Education: An International Journal*, 26(4), 221-238. <https://doi.org/10.24377/DTEIJ.article1378>
- Till, J. (2005). *Architecture Depends*, MIT Press, Cambridge, MA.
- Williams, A., Ostwald, M.J. and Askland, H.H. (2012). Assessing Creativity: Strategies and Tools to Support Teaching and Learning in Architecture and Design. *Office for Learning and Teaching*, Sydney. http://www.olt.gov.au/system/files/resources/PP9_1288_Williams_Report_2012.pdf
- Williamson, K. (2008). Discipline-Based Knowledge, Information Literacy and Graduate Attributes in Australian Universities. *Australian Academic & Research Libraries*, 39(1), 29-44. <https://doi.org/10.1080/00048623.2008.10721466>
- Windsor, C., Douglas, C. and Harvey, T. (2012). Nursing and Competency Standards: Interpretations of Practice. *Collegian*, 19(3), 153-161. <https://doi.org/10.1016/j.colegn.2012.02.001>
- Yorke, M. (2006). *Employability in Higher Education: What it is—What it is Not*. Learning and Employability Series 1. The Higher Education Academy.