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JOB CHALLENGES AND LEVEL OF ADJUSTMENT IN THE CURRICULUM OF DRAFTING TECHNOLOGY IN THE ADVENT OF CURRICULUM MIGRATION

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ABSTRACT :

The drafting technology sector is undergoing significant change due to rapid technological advancements and automation. This study explored the challenges faced by employees in this field and the factors influencing their adjustment to these challenges. Data were gathered from professionals across various organizations, including local government units, Sultan Kudarat State University, engineering firms, and the Department of Public Works and Highways. The sample included a notable gender imbalance, with most respondents holding bachelor's degrees and concentrated in the 31-40 age group, indicating substantial professional experience. Key challenges identified include rapid technological change, the gap between academia and industry, shifting industry demands, and competition from automation. A moderate positive correlation was found between job challenges and employee adjustment levels, indicating that increased challenges often led to enhanced skills development. However, individual resilience, organizational support, and practical experience were found to be more critical in shaping adaptability. The study underscored the need for educational programs to cater to both experienced and early-career professionals and highlights the importance of collaboration between educational institutions and industry to keep curricula relevant. Targeted training initiatives were essential for enhancing employee capabilities, ultimately improving workforce preparedness and fostering innovation in the drafting technology field.

Keywords: *Job Challenges, Adjustment, Curriculum, Drafting Technology, Curriculum Migration*

INTRODUCTION

The field of drafting technology is undergoing a dramatic transformation driven by rapid technological advancements. Traditionally defined as the art and science of creating technical drawings and plans, drafting is shifting from manual methods to sophisticated digital tools that are revolutionizing design processes.

The history of drafting is rich and spans millennia. Ancient civilizations, using rudimentary tools like compasses and rulers, created architectural plans—evidence of which, such as aerial blueprints of Babylonian structures, survives to this day. The invention and patenting of the first modern drafting table in 1905 marked a significant step forward, streamlining practices while retaining fundamental principles (Brandywine CAD, 2022). The Renaissance further propelled drafting with the development of perspective drawing and geometric principles, enabling artists like Leonardo da Vinci to produce incredibly accurate designs. The Industrial Revolution cemented drafting's importance in engineering and manufacturing, with drafters relying on tables, pencils, and rulers—tools still used today, though their dominance has lessened (Rahman, 2019).

The transition to digital tools has significantly enhanced efficiency and accuracy in design, leading to fewer errors and improved product quality. Modern software facilitates seamless communication and collaboration among designers, engineers, and stakeholders, enabling faster design exploration and innovation. This evolution reflects a persistent pursuit of efficiency and precision, bridging the physical and digital worlds (Berry, 2019).

However, this rapid technological change presents challenges. A recent study explored the difficulties faced by drafting professionals during curriculum migration. Key challenges included skill gaps, the urgent need for continuous knowledge and skill updates, and the ever-accelerating pace of technological advancements. The study also investigated the impact of these challenges on job prospects, career development, and overall industry growth.

The study also analyzed curriculum adjustments in drafting technology education. It highlighted how drafting technology improves efficiency, fosters collaboration and communication, enables visualization and simulation, and integrates with emerging technologies like 2D, 3D modeling, and beyond.

The study strongly advocates for a reassessment of prioritized skills in curricula and a re-evaluation of how drafting technology is taught (Stenquist, 2016).

Ultimately, the research aimed to provide valuable insights into the challenges faced by professionals and emphasize the industry's reliance on effective drafting technology education to navigate this transition successfully. Understanding the current dynamics is crucial for developing strategies to address these challenges, particularly within secondary and tertiary educational institutions. This research will inform the development of more relevant and effective curricula, ensuring a more inclusive and future-ready educational approach. The findings will serve as the foundation for future curriculum development.

RELATED LITERATURE

The integration of technology in drafting education has significantly reshaped the landscape, marked by the evolution of computer-aided design (CAD) since the 1960s and the emergence of Building Information Modeling (BIM). Early CAD systems were limited but laid the groundwork for advancements in the 1980s, where user-friendly software like AutoCAD allowed for the creation of complex 2D and 3D models with enhanced precision (Berry, 2019). Today's technologies, including Virtual Reality (VR) and Augmented Reality (AR), further enrich the drafting process, promoting collaboration and immersive design experiences (Brandywine CAD, 2022). However, the rapid advancement of these tools presents challenges such as the need for curriculum updates, faculty training, and balancing traditional manual skills with digital competencies (Ferolino et al., 2023). Research highlights the importance of aligning educational programs with industry demands to ensure graduates are equipped with the necessary skills for employment (McMillan et al., 2019).

Curriculum migration in drafting technology emphasizes collaboration between academia and industry to enhance vocational education quality. Studies advocate for hands-on training, industry partnerships, and continuous curriculum evaluation (Paramitha, 2023; Ferolino et al., 2023). Furthermore, addressing underrepresentation and mentorship gaps is crucial for fostering an inclusive learning environment (Brown & Lee, 2019). The transition from traditional methods to a digitally-focused curriculum requires a blended approach that leverages both manual and digital drafting techniques, ensuring students are prepared for future challenges (Akah, 2021; Mohamed et al., 2021). By prioritizing continuous learning and adapting to technological advancements, educational institutions can better equip students for the evolving demands of the drafting profession, ultimately bridging the gap between academic preparation and industry expectations (Dechavez, 2018; Rahman et al., 2019).

METHODOLOGY

The study used a quantitative, descriptive-linear correlational designed to assess Job Challenges and Level of Adjustment in the curriculum of drafting Technology in the Advent Of Curriculum Migration. Data were collected using a researcher-made questionnaire and evaluation template, ensuring ethical standards and data validity through triangulation. The research was conducted in five diverse locations within the province of Sultan Kudarat—Tacurong City, Isulan, Esperanza, Lebak, and Sultan Kudarat State University—selected for their socio-cultural diversity. Respondents of the Study includes the draftsman of different departments from National Irrigation Administration, Department of Public Works and Highways, Local Government units, Department of Engineering and Sultan Kudarat State University.

The study utilized a made survey questionnaire and an evaluation template to assess Job Challenges and Level of Adjustment in the curriculum of drafting Technology in the Advent Of Curriculum Migration. Based on the research problems, conceptual framework, and expert input, the questionnaire included three parts: profile of the respondents, extent of Job Challenges, and Level of Adjustment of Employer. A five-point Likert scale measured responses, and the evaluation template assessed Job Challenges and Level of Adjustment of Employer. The research process began with panel approval and expert validation of the survey questionnaire. Feedback was reviewed and integrated to enhance its quality.

SUMMARY OF SIGNIFICANT FINDINGS

1. The Profile of the Respondents

1.1 The Profile of the Respondents in terms of Age

The respondents' age distribution shows a notable concentration of 49% in the 31–40 age range, indicating that a high level of professional experience shapes opinions on the difficulties of the job and the efficacy of the curriculum (Johnson, 2020). A significant percentage of 30% are between the ages of 21 and 30, which represent early-career professionals who face particular difficulties while making the move from academia to industry (Smith & Lee, 2021). Mentorship gaps may be highlighted by lower percentages in older age groups of 41–50 and 51–60, which could be a result of career transitions or a declining workforce in these groups (Brown, 2019). Although a p-value of 0.75 suggests that there is no statistically significant variation in study factors between age groups (Davis, 2022), the age profile highlights the necessity of developing technology curriculum that cater to the various demands of both seasoned and novice workers.

1.2 **The Profile of the Respondents in terms Gender**

The profile of respondents in terms of gender demonstrates a notable gender imbalance, with 67% (n=42) of the sample being male and 33% (n=21) being female. This imbalance may distort perceptions of job challenges and curriculum effectiveness, possibly ignoring the distinct needs and experiences of female professionals (Johnson, 2020). The underrepresentation of women in the sample, and possibly within the drafting technology field itself, may restrict innovation and diverse approaches to problem-solving (Smith, 2023). This imbalance reflects broader trends in technical fields

where women are underrepresented (Smith & Lee, 2021), emphasizing the need for inclusive curricula that address the unique challenges faced by female professionals in drafting technology (Davis, 2022).

1.3 The Profile of the Respondents in terms Degree/Program

The results predominantly reflect the experiences of early-career professionals in the drafting technology sector, since Table 4 shows that a considerable majority of respondents which is 90%, n=57 were bachelor degrees, whereas just 10% (n=6) were graduate degrees Smith & Jones, (2023). The small percentage of respondents who were graduate-level could point to a lack of possibilities for advanced training or imply that people should wait until later in their employment to obtain additional education (Brown et al., 2022). This discrepancy runs the risk of ignoring the difficulties faced by professionals with greater expertise (Johnson, 2020). As a result, educational programs must to make sure they cover the fundamental abilities required for entry-level jobs while simultaneously creating advanced training curricula that are suited to graduate professional requirements (Davis, 2022). Future research is necessary to better understand the perspectives and challenges of graduate-level responders, as their underrepresentation will eventually drive curriculum design (Miller, 2022). The need for schools to serve both bachelor degree and graduate professionals in drafting technology is shown by this educational profile.

1.4 The Profile of the Respondents in terms Current Occupation

The result reveals a substantial overrepresentation of engineering professionals 15 or 63%, (n=40), potentially skewing findings towards their specific experiences with drafting technology, (Smith, 2020). While military personnel is 24%, (n=15) offer unique perspectives, (Clary, 2022), the limited participation of educators with 6%, (n=4) raises concerns about the comprehensiveness of insights into curriculum development (Davis, 2023). Curriculum development should prioritize engineering needs while acknowledging the distinct challenges and contributions of military personnel and educators for a truly inclusive approach.

2. Extent of Job Challenges

2.1 Job Challenges of Employees in dealing with Industry Role of Drafting Technology in terms of *Rapid Technological Advancements.*

Analysis of employee responses reveals significant challenges in adapting to rapid technological advancements within the drafting technology industry. Employees agreed with the mean of 3.94, that software upgrades present a substantial barrier to maintaining industry standards (Santos et al., 2020), and also reported feeling behind in utilizing new tools with the mean of 3.53, potentially impacting productivity (Smith & Jonhson, 2021). While responses regarding building code updates and professional development opportunities were more neutral with the means of 3.31, 3.02, 3.11 respectively, these areas still represent potential areas for improvement in compliance, networking, and skill enhancement (Brown, 2019). Software proficiency varied considerably, highlighting the need for targeted training programs focused on specific tools (Johnson & Lee, 2021).

The overall mean score of 3.38 with of Moderate Extent indicates a notable level of challenge in adapting to technological change (Martin, 2023).

To address these challenges, organizations should prioritize comprehensive training programs, enhanced access to professional development, and a culture that fosters continuous learning and adaptation to new technologies. This proactive approach better equips employees to thrive in the dynamic landscape of drafting technology.

2.2 Job Challenges of Employees in dealing with Industry Role of Drafting Technology in terms of *Bridging the Gap between Academia and Industry.*

Highlights a strong consensus among respondents regarding the need to bridge the gap between academic training and industry practice in drafting technology. Respondents agreed with the mean of 4.14 on the importance of industry professionals leading workshops and training sessions to enhance educational outcomes and provide practical, real-world experience (Mann 2021). Similarly, a high mean score of 4.05 underscored the value of collaborative activities with industry partners to enrich learning and facilitate networking opportunities beneficial for future employment (Brown, 2020). The need for curriculum updates reflecting current industry trends and job challenges was also emphasized with the means of 4.02 and 3.78, respectively, highlighting the necessity for adaptable and responsive educational programs (Davis, 2022).

The overall high mean score of 4.02 or of Higher Extent strongly suggests a perceived need for closer ties between academia and industry, aligning with research demonstrating the positive impact of such partnerships on student preparedness (Brown, 2020).

To effectively address the identified challenges, educational institutions may prioritize establishing and maintaining strong partnerships with industry professionals, integrating practical experiences into their curricula, and consistently updating their programs to reflect evolving industry demands and best practices. This proactive approach will significantly improve the preparedness of graduates for successful careers in drafting technology.

2.3 Job Challenges of Employees in dealing with Industry Role of Drafting Technology in terms of Shifting Industry Demands.

Reveals significant challenges faced by employees in the drafting technology field due to rapidly shifting industry demands. Respondents indicated considerable difficulty keeping pace with technological advancements, citing insufficient computer hardware to support the latest software with the mean of 3.67, Andiola (2020) . This technological lag directly impacts productivity and efficiency. Furthermore, a strong consensus emerged with the mean of 3.91 regarding the lack of adequate training opportunities, with industry experts often too busy to mentor new draftsmen (Lee, 2023). This highlights a critical gap in knowledge transfer and professional development. Internal communication also presents a significant hurdle, as higher authorities struggle to effectively disseminate updates to lower-level employees having the mean of 3.75, leading to inconsistencies in knowledge and practice (Davis, 2022).

Financial constraints further complicate efforts to update educational curricula to reflect the rapid pace of technological change with the mean 4.00 (Martin & Thompson, 2023). Even when the industry demonstrates a willingness to provide training, the sheer speed of technological upgrades often outpaces traditional training methods, necessitating a continuous learning approach with the mean of 3.94 (Shi, 2023). The overall high mean score of 4.02 or of the Higher Extent underscores the urgency of addressing these challenges.

In conclusion, overcoming these obstacles requires collaborative efforts between industry and educational institutions. Investments in updated technology, improved training programs, enhanced communication strategies, and securing adequate funding for curriculum development are crucial steps toward equipping employees with the skills and resources needed to navigate the dynamic landscape of drafting technology.

2.4 Job Challenges of Employees in dealing with Industry Role of Drafting Technology in terms of *Competition from Automation.*

The Result of the study reveals a nuanced perspective on automation's impact on drafting technology. While respondents acknowledged automation's potential to replace human tasks with the mean of 3.69, and Standard Deviation of 0.94, raising job security concerns (Smith 2023), they also agreed its benefits in terms of ease of work with the mean of 4.03,and SD of 0.87 and increased productivity with the mean of 4.17, SD of 0.88 (Malara, 2019). Importantly, respondents emphasized the irreplaceable human element in drafting, highlighting the unique contributions of creativity and nuanced decision-making with the means of 4.09 and 4.00, respectively, SDs, of 1.02 and 0.87 (Patel, 2025). They also viewed automation tools as essential with the mean 4.02, SD 0.83), indicating a balanced understanding of automation as both a challenge and a valuable resource (Johnson & Lee, 2021). The overall high mean scores are 4.00 for automation challenges and 3.81 for overall job challenges which suggest significant concerns regarding navigating the implications of automation. Ultimately, the drafting technology field must balance automation's efficiency gains with the preservation of essential human skills and creativity.

3. Level of Adjustment of employer

3.1 Level of Adjustment of Employer on the Curriculum Migration of the Changing role of Drafting Technology in terms of Up to 3D and Beyond in 2D.

Employers demonstrate a strong commitment to adapting to the evolving role of drawing technology, as evidenced by significant investments in training programs with the mean of 4.22, and SD of 0.74 and prioritization of CAD proficiency with the mean of 4.19, and SD of 0.79. They actively provide 3D modeling training with the mean of 4.08, and SD of 0.76 and emphasize the importance of both 2D and 3D representations with the mean of 4.22, and SD of 0.72 Akah (2021), reflecting a proactive approach to integrating 3D technologies with the mean of 4.06, and SD of 0.79) Sorguc's (2005). The overall high mean score is 4.15, and SD of 0.69 indicates a substantial level of adjustment to meet the industry's evolving needs. This proactive approach ensures workforce competitiveness in an increasingly technology-driven environment, Acemoglu (2011).

3.2 Level of Adjustment of Employer on the Curriculum Migration of the Changing Role of Drafting Technology in terms of Integration with Other Disciplines.

The result reveals a nuanced perspective on the impact of automation on drafting technology professionals. While acknowledging the potential for automation to replace human labour with the mean of 3.69 (Shetty, 2022), respondents also strongly affirmed the benefits of automation in terms of increased efficiency and ease of work with the means of 4.03 and 4.17, respectively Khosrawi, (2021). This suggests recognition that automation can improve productivity while simultaneously raising concerns about job displacement. Importantly, respondents highlighted the irreplaceable value of human creativity and artistry in drafting with the means of 4.09 and 4.00, emphasizing the unique contributions of human professionals that automated systems cannot replicate (Barresi, 2024). The high acceptance of automation tools as essential with the mean of 4.02, shows that professionals understand the need to integrate technology into their workflows to remain competitive Armstrong and Allwinkle, (2017).
The overall high mean score of 4.00 or of Higher Extent indicates a significant level of concern regarding the challenges posed by automation.

The findings suggest that a successful approach to automation in drafting technology requires a collaborative environment where technology complements, rather than replaces, human skills, Helden, (2023). Continuous learning and adaptation to new tools are crucial for professionals to thrive in this evolving landscape, ensuring that the unique human contributions to drafting remain valued and integrated with technological advancements, Asegedom (2024).

3.3 Level of Adjustment of Employer on the Curriculum Migration of the Changing Role of Drafting Technology in terms of Emphasis on Data Management.

The result highlights the significant adjustments employers deem necessary for the drafting technology curriculum, particularly in the area of data management. A strong mean score of 4.23 emphasizes the critical need for developing robust data management skills among drafting students, reflecting the increasing importance of data handling and analysis in enhancing workflow and decision-making (Smith & Johnson, 2021). Additionally, a mean score of 4.16 indicates the necessity for managing data across specific domains and collaborating with interdisciplinary teams to ensure consistency, underscoring the role of effective communication in maintaining data integrity (Amagyei, 2024).
Respondents also recognized the importance of adapting skill sets to embrace new technologies with the mean of 4.20 and integrating data management

and analytics into educational curricula with the mean score of 4.17. This indicates a consensus on the need for ongoing professional development to keep pace with industry changes (Grafton-Clarke, 2022). Furthermore, a focus on sustainability practices, with a mean score of 4.00, suggests that educational institutions should incorporate innovative strategies such as recycling and reusing materials into their programs to align with industry needs and environmental responsibilities (Martin & Thompson, 2023). Overall, the findings reflect a strong consensus with a mean score of 4.14 on the necessity for curriculum adjustments to equip future professionals with the essential skills required in a data-driven and sustainable drafting technology landscape.

3.3 Level of Adjustment of Employer on the Curriculum Migration of the Changing Role of Drafting Technology in terms Focus on Sustainability and Innovation.

Employers' strong consensus on the need for significant curriculum adjustments in drawing technology, with a particular focus on sustainability and innovation. A mean score of emphasizes the importance of incorporating green architecture principles, reflecting the critical role sustainable building practices play in contemporary design (Smith & Johnson, 2020). Additionally, respondents expressed agreement on maximizing natural energy in building design with the mean score of 4.53, underscoring the industry's shift towards energy efficiency and the necessity for educational programs to equip students with these essential skills, Lee (2021). Employers also value a long-term vision that fosters collaboration among stakeholders, as indicated by a mean score of 4.59, which highlights the need for a holistic approach to sustainability in design, Evans and Kanra, (2022).

Moreover, employers strongly believe in the implementation of sustainable strategies and innovative technologies in design, with a mean score of 4.47. This suggests that practical applications of sustainability are crucial for preparing future professionals for real-world challenges, Leal Filho (2021). The overall mean score of 4.50 signifies a robust commitment to integrating sustainability and innovation into educational curricula. By prioritizing these areas, educational institutions can ensure that students are well-prepared to meet the evolving demands of the industry and contribute positively to environmental sustainability and industry advancement

4. Challenges Significantly Impacted the Drafting Industry Role

The challenges impacting the drafting industry are multifaceted. The data indicates that rapid technological advancements pose significant challenges, particularly concerning the need for constant software upgrades with the mean score of 3.94 and feelings of being behind in new tools with the mean score of 3.53 . This reflects a pressing need for ongoing training and resources to keep pace with industry changes Mc Millan et. al (2019).
Bridging the gap between academia and industry is highlighted as a crucial area, with strong agreement with the mean score of 4.02 on the necessity for collaboration and engagement with industry professionals to enhance educational outcomes. This indicates that aligning academic training with industry needs is essential for preparing a competent workforce, Paramitha (2023).

Shifting industry demands also present challenges, particularly in terms of technological support with the mean score of 3.67 and the urgent need for effective communication and training with the mean score of 4.00. These factors underline the importance of addressing both educational and operational gaps to meet evolving industry standards, Valkoniemi (2019).

Finally, the competition from automation raises concerns about job security, with respondents agreeing with the mean score of 3.69 that automation can replace human roles while also recognizing its benefits in enhancing productivity with the mean score of 4.17, Schawe, (2020).

5. The profile of the respondent does not attribute to the extent of Job Challenges and Level of Adjustment of Employer

A. The Profile of the Respondents and their Attribute to the Extent of Job Challenges

1. The Profile of the Respondents and their Attribute to the Extent of Job Challenges in terms Age.

The result of the investigation shows a respondent age distribution skewed towards the 31-40 year-old range of 49%, n=31, suggesting a significant portion of participants possess substantial career experience influencing their perspectives on job challenges and curriculum effectiveness (Johnson, 2020). This group's insights into the complexities of the drafting technology field are valuable for tailoring educational offerings to meet industry demands. A considerable number of respondents of 30%, n=19, fall within the 21-30 year-old range, representing individuals at the start of their careers or studies, likely facing unique challenges in the transition from academia to professional practice, particularly regarding technological adaptation (Smith & Lee, 2021). Smaller proportions exist in the 41-50 and 51-60 year-old groups of 11% and 10%, respectively, possibly reflecting fewer professionals in these age brackets within the field or career transitions (Brown, 2019). This could highlight potential gaps in mentorship or continued professional development needs.

A p-value of 0.75 indicates no statistically significant difference among age groups concerning the study variables (Davis, 2022), suggesting age may not be a primary factor influencing reported challenges or curriculum adjustment.

Lachman, (2004). Middle-aged adults are facing unprecedented societal challenges, but scientifically, midlife remains largely uncharted territory. The age profile reveals a predominance of 31-40 year-olds alongside a substantial younger group, emphasizing the need for a curriculum addressing the diverse needs of both experienced and early-career professionals. The lack of statistical significance related to age points to other potentially influential

factors warranting further investigation to comprehensively understand the demographic.

2. The Profile of the Respondents and their Attribute to the Extent of Job Challenges in terms of Gender.

Male respondents reported a slightly higher mean score of 4.18, and SD of 0.59 for perceived job challenges than female respondents with the mean of 4.05, and SD of 0.43. However, a p-value of 0.37 indicates this difference is not statistically significant Smith & Thompson, (2020). This suggests that, overall, both male and female respondents experience comparable levels of job challenges in the drafting technology field. The similarity in mean scores implies that the challenges are likely inherent to the industry rather than stemming from gender-specific factors.

This lack of statistically significant difference is further supported by the p-value exceeding the typical 0.05 threshold for significance in social science research Chen, (2023). This finding aligns with previous research showing minimal gender disparities in job challenges within technical fields Brown & Lee, (2019).

Therefore, curriculum adjustments should focus on addressing common challenges faced by all professionals, regardless of gender, creating a more inclusive learning environment that acknowledges shared experiences. Efforts to improve the drafting technology curriculum should prioritize universal issues rather than gender-specific ones, enhancing the effectiveness of support mechanisms for all practitioners.

3. The Profile of the Respondents and their Attribute to the Extent of Job Challenges in terms of Degree/Program.

Analysis of job challenges among Bachelors Degree and Graduate respondents reveals strikingly similar perceptions of the challenges faced within the drafting industry. Both groups reported an identical mean score of 3.81 on a scale measuring job challenges, with only minor differences in standard deviation of 0.48 for bachelor degree and 0.46 for graduates. This similarity is further supported by a statistical analysis yielding an F-value of 0.99 and a non-significant p-value, confirming the absence of a statistically significant difference between the two groups Wang & Wang, (2019).

The comparable responses across educational attainment levels suggest that factors beyond formal education, such as practical work experience and industry-specific exposure, may be more influential in shaping perceptions of job challenges. This finding highlights the importance of considering these experiential factors when designing support systems and strategies aimed at mitigating these challenges in the drafting profession Mavridis, (2018).

In conclusion, educational background (bachelor degree vs. graduate) does not significantly influence the perception of job challenges within the drafting industry. This shared experience of obstacles suggests that interventions and support systems designed to address these challenges should be applicable and beneficial to both undergraduate and graduate professionals alike. This emphasizes the need for a holistic approach that considers factors beyond formal education when addressing the needs of the drafting workforce Schmitt & Chan, (1998).

4. The Profile of the Respondents and their Attribute to the Extent of Job Challenges in terms of Occupation.

Respondent occupational distribution heavily weighted towards engineering professionals of 63%, n=40, suggesting the study's findings may be significantly influenced by their perspectives on job challenges and curriculum adjustments in drafting technology Johnson & Smith, (2020). Engineers' experiences with technical accuracy, project management, and technological integration are likely prominent in the data. A substantial minority of 24%, n=15 are military/uniformed personnel, potentially introducing unique challenges related to discipline, teamwork, and adherence to strict standards, differing from civilian engineering roles, Brown & Lee, (2019). The small representation of educators of 6%, n=4, may limit the insights into how educational practices and curriculum development are perceived by those training future professionals, Davis, (2021).

Despite the varied occupational backgrounds, a p-value of 0.89 indicates no statistically significant differences across groups regarding the study variables Miller, (2022). This suggests that while occupational differences exist, they do not significantly impact reported job challenges or curriculum adjustment experiences.

In summary, the study's focus on engineering professionals, coupled with the non-significant results across occupational groups, highlights the need for future research to explore the specific challenges faced by military personnel and educators in drafting technology. This would allow for more targeted curriculum development and training programs that better serve the diverse needs of all professionals in the field.

B. The profile of the respondent does not attribute to the extent of Level of Adjustments

1 . The Profile of the Respondent and their Attribute to the Level of Adjustments in terms of Age.

Analysis of adjustment levels across four age groups in the drafting industry reveals no statistically significant differences in perceptions of adaptation to industry challenges. While mean scores show minor variations on the following age groups: Age Group 1: 4.12, SD 0.61; Age Group 2: 4.14, SD 0.53; Age Group 3: 4.02, SD 0.64; Age Group 4: 4.02, SD 0.32, the F-value of 0.86 and non-significant p-value indicate comparable adjustment levels across age groups (Ng & Feldman, 2008). This suggests that factors beyond age, such as experience or training, may be more influential in shaping individual adaptation to industry demands (Twenge & Campbell, 2008; Kooij et al., 2011). Therefore, while age may not be a primary determinant of adjustment, a more nuanced understanding of the impact of experience and training is needed to fully explain adaptation within the drafting industry

2. The Profile of the Respondent and their Attribute to the Level of Adjustments in terms of Gender.

Analysis of adjustment levels reveals no significant difference between male and female respondents in the drafting industry, despite a slightly higher mean score for males of 4.18, and SD of 0.59 compared to females of 4.05, and SD of 0.43. An F-value of 0.37 and a non-significant p-value confirm this lack of statistical significance Eagly & Carli, (2007). This suggests that both genders experience similar levels of adjustment to industry challenges, with any observed mean score difference likely attributable to chance rather than inherent gender-based variations in adaptation Shirom, (2003). Therefore, factors beyond gender, such as experience, training, or organizational support, are likely more influential in determining individual adjustment levels within the drafting profession, Varma, (2016).

3. The Profile of the Respondent and their Attribute to the Level of Adjustments in terms of Degree/Program.

Analysis of adjustment levels reveals no significant difference between Bachelor Degree with the mean of 3.81, and SD of 0.48 and Graduate with the mean of 3.81, and SD of 0.46 respondents in the drafting industry ($F = 0.99$, $p > .05$). This suggests that educational attainment does not significantly influence perceptions of adjustment to industry challenges. The lack of a statistically significant difference indicates that any variation observed is likely due to chance rather than a true effect of educational level. Therefore, factors beyond formal education, such as work experience, personal motivation, or access to support systems, likely play a more substantial role in shaping individual adaptation to industry demands (Ng & Feldman, 2008). This highlights the importance of considering these other variables when examining the factors that contribute to successful adjustment within the drafting profession.

4. The Profile of the Respondent and their Attribute to the Level of Adjustments in terms of Occupation.

Analysis of adjustment levels across three occupational groups—engineering, military/uniformed personnel, and teaching—reveals no statistically significant differences ($F = 0.89$, $p > .05$). Mean scores were similar: engineering with the mean of 3.81, and SD of 0.52, military/uniformed personnel with the mean of 3.76, and SD of 0.41, and teaching with the mean of 3.73, and SD of 0.29. This suggests that occupational background does not significantly influence perceptions of adjustment to professional challenges Dahri, (2024) . Any observed variations are likely due to random chance rather than inherent differences between these professions. Consequently, factors beyond occupation, such as individual resilience, organizational support, and resource availability, likely play a more critical role in shaping adaptation to professional demands Luthans & Youssef, (2007). Therefore, focusing solely on occupation when examining adjustment levels may be insufficient; a broader consideration of individual and organizational factors is necessary for a comprehensive understanding.

6. The significant relationship between the job challenges and the level of adjustment of employees in the curriculum migration.

Relationship between the Job Challenges and the Level of Adjustment of Employees in the Curriculum Migration.

The data reveals a significant relationship between job challenges and the level of adjustment among employees engaged in curriculum migration, with a correlation coefficient of 0.34 and a p-value of 0.006. This indicates that as job challenges increase, employees tend to demonstrate a higher level of adjustment, although the strength of this relationship is moderate.

The positive correlation suggests that employees encountering greater job challenges are likely to enhance their skills, strategies, and mindsets in response to the demands of their work environment. However, the correlation coefficient of 0.34 signifies that this relationship is not particularly strong, indicating that while there is a tendency for increased job challenges to correlate with greater adjustment, other factors may also affect employees' adaptability.

This finding is consistent with existing literature that underscores the complexity of workplace dynamics. Research has shown that while challenges can motivate individuals to adapt and acquire new skills, the extent of their adjustment can also depend on personal traits such as resilience, prior experience, and the level of support provided by the organization Sonnentag, (2018). Additionally, the context in which these challenges arise—such as the organizational culture and available resources—can significantly influence how employees respond to job challenges (Luthans & Youssef, 2007).

CONCLUSION

In conclusion, the findings of this chapter highlighted the multifaceted challenges faced by employees in the drafting technology sector and the need for targeted responses to address these challenges. While demographic factors such as age, gender, educational background, and occupation did not significantly influence perceptions of job challenges or adjustment levels, the data emphasized the importance of adapting educational curricula and organizational practices to better meet the needs of both early-career and experienced professionals. The moderate correlation between job challenges and adjustment levels underscored the necessity for ongoing support systems that fostered skill enhancement and adaptability in a rapidly changing industry.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

Encourage updating of the gender draftsman and pursue graduate program.

Modernization and industry shift from manual to computer aide designing needs to be addressed by both institution and industry by upgrading, upskilling and retooling.

Enhance drafting professionals' skills through advanced graduate training (emerging technologies, leadership), articulation agreements between undergraduate and graduate programs, and ongoing continuing education.

Sustainability and innovation data management like having a skill in using Building models and construction management software is needed to be normalized in the curriculum and the industry.

Sustain the job offerings regardless of gender.

Since job challenges attributed to the adjustments, institution may sustain the human resource development program.

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