

CONFLICT AS A CONTRIBUTORY FACTOR IN BUILT ENVIRONMENT APPRENTICESHIP COMPLETION IN THE REPUBLIC OF IRELAND

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The adversarial, conflict-stricken environment in which the construction sector operates, has long been noted by practitioners and academics alike. This high-tension environment is often noted as an inhibitor in the recruitment and/or retention of labour. Apprenticeships are an essential source of labour for the Irish construction industry; there are 66 apprenticeships available, 8 of which are directly involved in the built environment. These include apprentices in carpentry, plumbing, and electrical. As part of a wider research plan into apprenticeship completion rates, the relationship between organisational conflict and apprenticeship completion is investigated. 75 questionnaires are completed at Phase 6 of training within an education centre. Participants are allowed to detail their experience with organisational conflict and the influence in which it has on their apprenticeship. The findings indicate that 64% have experienced organisational conflict within their profession, with 20% admitting it caused them to question their career choice. These findings will allow for increased ability to manage and mitigate the influence of organisational conflict on apprenticeships, with the goal of increasing completion rates, which are currently at 70%.

Keywords: adversarial; conflict; vocational; education; training; quantitative

INTRODUCTION

An organised programme of education and practical training known as an apprenticeship, formally combines training in the workplace, with a learning environment (Education and Skills, 2013). Apprenticeships place a strong focus on experiential learning, while addressing economic demands and educating the apprentice for a particular career. Employed under a contract of employment, apprentices must complete at least 50% of their training in the workplace (Apprenticeship, 2020). Apprenticeship training programmes offer companies a defined framework in which to foster loyalty and increase the diversity of applicants to their organisation, making it an appealing method of labour sourcing (Department of Further and Higher Education, 2021). Within the 66 apprenticeships in Ireland, there are 8 Built Environment Apprenticeships. These are electrical, plastering, plumbing, brick and stone laying, plastering, stonecutting and masonry, wood

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manufacturing and finishing, painting and decorating and carpentry and joinery. These follow a standards-based, 7 phased model, to Level 6 certification (O'Connor, 2006). The governing organisation for statutory apprenticeships in Ireland is SOLAS, which has the backing of companies, educators, the Government, and labour unions.

O'Connor (2006) outlines that statutory apprenticeships are a crucial component of the further education training sector, while simultaneously providing essential labour to the workforce. Consequently, the retention and subsequent completion of built environment apprenticeships is critical to keeping up with increasing labour demands of the industry. A blanket study carried out by CPP Global, (2008) found that 85% of employees admitted to having to deal with conflict, with a further 29% insisting they felt they had to deal with conflict constantly. Studies such as De Dreu, (2006), Vodosek, (2005) and Meier, *et al.*, (2013) show correlations between conflict and lowered performance, poor well-being, and negative emotions. Considering this Brockman, (2014) stated that to run an efficient business the prevention and management of conflict is quintessential.

In January 2022, a systematic assessment of the literature on apprenticeship completion was conducted, looking at findings from 24 papers published between January 2000 and December 2021. According to the findings of the research, there are three primary groups for the causes of completion: Apprentice-related characteristics, curriculum and programme quality, and employer-related concerns (McMahon, *et al.*, 2022). Subsequently, this paper aims to investigate the influence of workplace conflict on apprenticeship completion rates. This is achieved by answering the concise research question of whether conflict plays a role in built environment apprenticeship completion rates. In organisational conflict literature there is a certain element of confusion as to the correct application of certain terminology. Terms such as conflict, dispute and disagreement are often used synonymously by researchers (Ejohwomu, *et al.*, 2016). It is vital to a comprehensive study that there is clarity in the terminology used and subsequently for the purposes of this paper the term conflict will be defined in accordance with Marquis and Huston, (2009), who defines conflict as, 'internal strife caused by disagreements between two or more persons over ideas, ideals, or feelings.

LITERATURE REVIEW

When carrying out a comprehensive critique of the literature it is important to provide context to the literature which is being discussed. As part of this pilot study, literature on organisational conflict and studies on apprenticeship completion rates are reviewed to create a foundation of knowledge onto which the research is built. The construction industry has long been noted for its conflict burdened environment and the adversarial nature in which it operates (Vaux and Dority, 2020). The sectors' ability both domestically and abroad to create disputes is unparalleled (Spillane, *et al.*, 2011). Projects are fast paced, complex by nature and rely heavily on the cooperation of a multitude of stakeholders whom all have varying interests. When misaligned, the varying interests and objectives of these stakeholders contribute to the adversarial environment which manifests as conflict, and subsequently poor performance (Vaux and Dority, 2020). Employees spend between 25 to 50% of their day dealing with interpersonal conflict in some capacity (Hahn, 2000). Often, in industry, personnel are instructed to ignore and or avoid conflicts, however (Gorse, 2003) found this can induce significant stress and damage professional relationships of those involved. There are also strong indications that the erosion of these professional relationships

correlates with the prospect of inferior project performance (Meng, 2012). In addition to this, interpersonal conflict has been cited as a “top occupational stressor”, having high correlations with negative physical health and well-being (Brockman, 2014). Rispens and Demerouti, (2016) described workplace conflict as being “omnipresent” and although conflict at work is not sought after, there is much research to suggest they have become commonplace in all work environments (Narayanan, *et al.*, 1999) (Keenan and Newton, 1985). The implications of such conflict on employees in a construction context has been the subject of an abundance of academic research with a variety of results. With studies such as Zhang and Huo, (2015) focusing on the performance implications of interpersonal conflicts, with results indicating predominantly positive correlations between increased conflict levels and decreased performance. With apprentices being a primary labour source of the sector, conflict which involves apprentices can have major implications on projects performance while simultaneously influencing potential training completion.

Studies have been done that provide insight into the variables affecting apprentice completion (Bednarz, 2014, Bilginsoy, 2003, Coe, 2013, Donkor, 2012, Gambin and Hogarth, 2016). According to Snell and Hart (2008), apprentices who are dissatisfied with the quality of on-the-job training had a higher likelihood of intending to leave their apprenticeship. This is because these apprentices perceived the training component to be inadequate. Smyth and Zimba (2019) identify several factors that were frequently mentioned in determining whether to continue with an apprenticeship, including employer support, lack of recognition, relevance of training, apprentice pay, support from supervisors, and support from trainers. Despite high intentions of completing their apprenticeships, many participants reported facing challenges during their training that influenced their thoughts of leaving. The paper does not provide specific numerical data on the percentage of apprentices who completed their training after considering leaving. However, the study did find that perceived organisational support (POS) and leader-member exchange (LMX) factors, such as support from trainers and supervisors, were important factors that influenced apprentices' intentions to complete their apprenticeship and stay with their employer after completion. This suggests that strategies aimed at enhancing these factors could potentially improve completion and retention rates. A positive LMX relationship means that the apprentice feels supported, respected, and valued by their supervisor or trainer, which can lead to higher job satisfaction, higher intentions to complete the apprenticeship, and higher retention rates.

An Australian study aimed to identify factors that contribute to apprentices' decisions to remain in or leave their apprenticeships, with a focus on motivation style, coping style, employment experiences, financial responsibility, and demographic factors. The hypotheses proposed specific relationships between these factors and apprentices' thoughts towards remaining in their apprenticeship (Gow *et al.*, 2008). The Apprentice Experience Questionnaire (AEQ) was created specifically for this study to evaluate the experiences and turnover cognitions of apprentices. The questionnaire also included questions related to personal aspects, such as perceived social support and living arrangements, as well as work-related aspects such as relationships with colleagues. It was divided into three sections, with the first two sections consisting of short answer or direct response questions, and the third section consisting of a five-point scale (ranging from strongly disagree to strongly agree). Questions such as ‘I am satisfied with my apprenticeship’ were asked as part of this Likert scale. 61% of respondents said that they had not thought about leaving the trade, 38% had.

There is a significant contrast in how satisfied completers and non-completers are with their employment experience. Bednarz (2014) stated that most completers (80%) reported being satisfied with their overall employment experience, whereas only 42% of non-completers expressed the same level of satisfaction. Non-completers had lower satisfaction levels across every aspect of the employment experience, including working conditions, supervision, relationships with co-workers, and employer-provided training, with differences ranging from 20 to 30 percentage points across the board. She also found that in 2010, 10% of non-completers did not get on with their boss or co-workers, 3% worked in poor working conditions and only 2% were not happy with the on-the-job training. Interestingly only 5 % cited pay as a factor in non-completion.

The study by Greilinger and Sandner (2021), investigates the factors that lead to the early termination of apprenticeships in Germany. The authors analyse data from a survey of 7,469 former apprentices who terminated their training early and examine factors such as gender, migration background, academic performance, and employer characteristics. The study reveals that the median duration of premature termination of apprenticeships is 12 months, with reasons such as lack of motivation or interest, poor performance, and conflicts with employers being the main causes. The authors also find that gender, migration background, and academic performance significantly affect the termination process. Overall, the study highlights the need for interventions to support at-risk apprentices and provides valuable insights into the factors that contribute to the early termination of apprenticeships.

METHOD

A questionnaire is developed to align with the research objectives, incorporating relevant themes, concepts, and variables identified through the literature review. The questionnaire serves as a reliable instrument for data collection, enabling a systematic exploration of the research area. It allows researchers to gain valuable insights for future research on apprenticeship retention and completion rates. The questionnaire structure follows a logical flow, with questions organised thematically based on the literature review findings which allows a comprehensive exploration of the research topic while allowing for efficient data collection and analysis. Participants are provided with a comprehensive explanation of the research objectives, applications, and their rights and responsibilities before completing the questionnaire. The questionnaires are administered through the user-friendly online platform Microsoft Forms. Likert scales are chosen as the primary instrument for measuring affective variables, considering their widespread implementation and ability to capture participants' attitudes and perceptions. Open-ended questions are included to gather more detailed insights. This approach aligns with the recommendations of Nemoto and Beglar (2014), who advocate for the combination of Likert scales with other methods to gather comprehensive data. Likert scales are commonly used to measure affective variables (Nemoto and Beglar, 2014). Originally developed in 1932 with five points, they have been adapted to include different numbers of response options, ranging from two to eleven points (Taherdoost, 2019). However, the inclusion of multiple response options, typically five, ranging from "very satisfied" to "very dissatisfied," is sufficient for achieving precision and reliability in responses, as the gain in precision diminishes beyond five options (Fitzpatrick, 1991). The questions address issues and themes highlighted in the literature, aligning with similar works such as Ejlertsson *et al.* (2018), which explores work satisfaction.

Ethical considerations are prioritised, ensuring participant anonymity and obtaining informed consent. To ensure participant comfort, anonymity is maintained in accordance with Harvey (2011), as participants tend to feel more at ease when their responses are not recorded. Data access is restricted to authorised research personnel to safeguard participant data. The population under study encompassed Phase 6 apprentices in the fields of carpentry, electrical, and plumbing, who were actively enrolled in Ireland in January 2023. At that time, the population sizes were as follows: 176 for plumbing, 608 for electrical, and 160 for carpentry, constituting the total Irish population. A non-probability sampling technique was employed to select the sample, implying that participants were not chosen randomly from the population. Rather, they were selected based on their availability to Dundalk Institute of Technology (DKIT) and their willingness to participate. The sample size for each trade at DKIT consisted of 32 individuals, with 23 participants from plumbing, 24 from electrical, and 28 from carpentry. For more detailed information, please refer to Table 1. While 75 participants is statistically significant, it is important to note that while the sample provides valuable insights into the research topic, there is a need and justification for future research with larger and more diverse samples to confirm and extend the study's findings.

Population & Sample Size	Phase 6 Ireland	Phase 6 DKIT	Sample Size	Participants
Trade				
Plumbing	176	32	32	23
Electrical	608	128	32	24
Carpentry & Joinery	160	32	32	28

Table 1: Population and sample size of electrical, carpentry and plumbing apprentices in January 2023

FINDINGS

Participants firstly identified which apprenticeship they were enrolled and at what phase they were currently at with all participants being in phase 6. Twenty-one questions then followed centred around issues / themes and concepts identified in the literature.

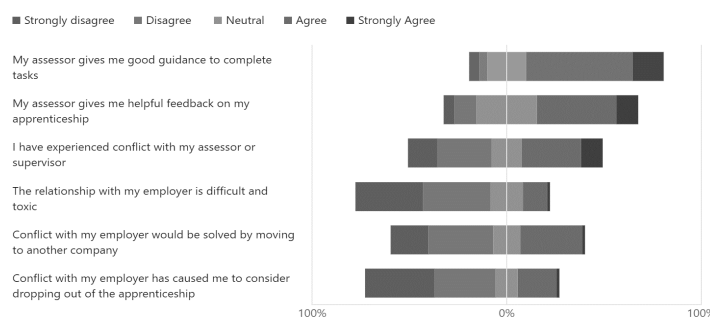


Figure 1: Assessor Support

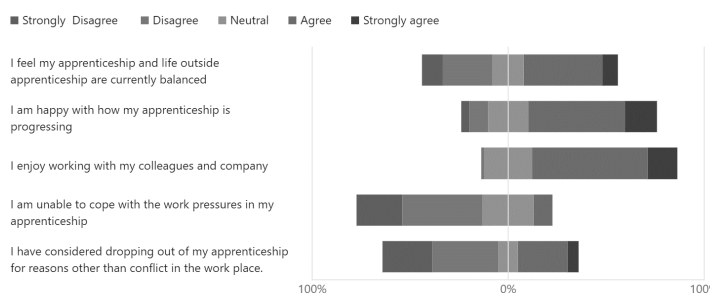


Figure 2: Apprenticeship Balance

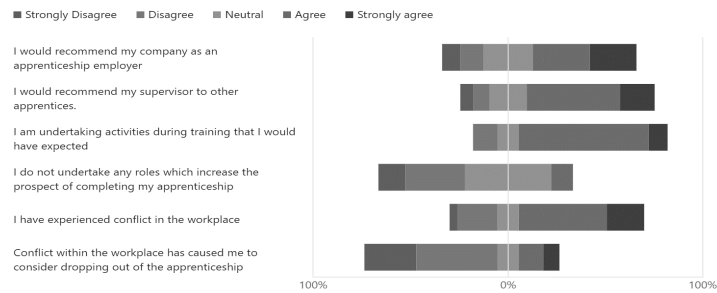


Figure 3: Company Support

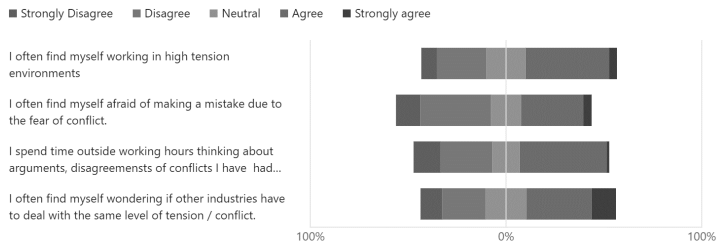


Figure 4: General Concerns

In accordance with Meng, (2012) remarks labelling conflict as 'omnipresent' in the construction sector 71% of the workforce sampled experience conflict in one way or another. However, the implications of this conflict and moreover the correlation to thoughts of dropping out seem to vary drastically, with 11.4%, 20% and 1.4% remaining neutral, agreeing, or strongly agreeing that conflict is a specific reason for their consideration of leaving their apprenticeship. O'Neill's, (2022), work aligns in this regard with the study showing that the escalation / outcome of interpersonal conflict in construction is contingent on an incalculable number of factors.

DISCUSSION

To follow a systematic presentation style the discussion is under the same headings under which the questionnaire is carried out. Assessor support allows participants to express their level of satisfaction with the guidance and general care in which they have receive from the assessor. Overall, the results indicate a predominantly positive apprentice - assessor relationship within the built environment with 55% of apprentices agreeing that their assessor gives good guidance in the completion of their tasks and a further 16% strongly agreeing. However, 15% say that would not recommend their supervisor to other apprentices. Although 71% of respondents express positive feelings to the support provided by the assessor and a further 20% remaining neutral. This is a welcome finding as Bednarz, (2014), shows a high percentage of completers having a positive relationship with their assessor. The data shows that 42% of apprentices acknowledge experiencing conflict with their assessor. Despite the existence of this conflict only 1.4% strongly agreed that the relationship between them and their employer is toxic. When asked is conflict with their employer has ever caused them to consider dropping out of the apprenticeship 20% of participants agreed.

Apprenticeship balances refers to the apprentices' views on their ability to balance their apprenticeship with all aspects of life, including during working hours. When asked if they were unable to cope with the work associated pressures involved in their apprenticeship, 41% disagreed with a further 23% strongly disagreeing. 74% of participants expressed that they enjoy working with their current environment and

65% are happy with the progression of their program. Life outside of work possess a different set of challenges for apprentices due to the acclimation to long working hours and physical demands resulting in 25% of respondents disagreeing that they have a good balance between work and life outside the industry. Interestingly, 35% of apprentices admitted to considering dropping out due to reasons other than conflict which is 10% above that of which conflict has influenced the same considerations.

In relation to company support, 53% of respondents agreed that they would recommend their current employer to other apprentices. Respondents were typically happy with the activities in which their employer was having them carry out with 77% agreeing to being content with the activities during training. However, 11% did admit to carrying out activities which they felt did not increase the prospect of completing their apprenticeship. This is cause for concern with previous research by Snell and Hart (2008) showing that those with a satisfaction towards on-site training having more frequent thoughts of non-completion. Employers instructing apprentices to carry out works outside the remit of their training is often a result of labour shortage which is currently close to an all-time high. 65% of apprentices admit to experiencing conflict in the workplace again which is higher than that who has experienced conflict with their assessor (42%). The theoretical distinction between intra vs inter-organisational conflict is important, however this paper is focused on the participants experience with conflict rather than the persons whom it was with.

'The construction industry is often noted for its high-tension conflict burdened environment', Vaux and Dority, (2020), the findings of this paper compound this statement with 47% of respondents admitting to working in a high-tension environment. Interestingly, the influence of this tension of the apprenticeship program from a learning point of view seems minimal with 64% alluding to conflict not influencing their fear of making a mistake. The high levels of conflict in the built environment are irrefutable with 46% of respondents spending time thinking about workplace conflict at home and 46% of participants often pondering if all industries experience similar levels of conflict. Apprentices were given the option to further discuss their personal experience with conflict throughout the time of their apprenticeship with 37 out of 75 making further comments. Many participants (22) stated that they had not experienced conflict or had experienced very little with comments like 'no conflict', 'none', 'manageable as it only lasts a day', 'okay', 'haven't had much thanks god', 'never had much', 'never had much, only a few small arguments', 'No conflict in my apprenticeship, it's only the lads who are babied at home have conflict as they expect the bosses to babysit them like their mothers would'. 11 discussed conflict and made comments like 'Have had 3 different employers, usually conflict stems over pay i.e., not getting correct rate, OT (overtime) rates etc', 'My first employer me and him had big arguments every day for 3 years and when I finally quit I was going to drop out of my apprenticeship then I met my new employer', 'Just topical things like work being wrong or taking too long to do something would end in fights', 'Mostly down to pay and time served', 'Nothing much just usual giving out if stuff not done or goes wrong'. The remaining 5 made comments regarding matters outside the scope of this research and so are not included in this discussion.

When looking at the different apprenticeship programs in isolation 58% of electricians indicated experiencing conflict with their employer with half of those agreeing that this has caused them to consider leaving their apprenticeship, however 50% would still recommend their company as an apprenticeship employer. Plumbers in general

indicated higher levels of conflict in the workplace and with their employer than electricians or carpenters with 34% starting that they felt like leaving their apprenticeship because of conflict within the workplace. 87% of carpenters disagreed their relationship with their employer was toxic and difficult as opposed to 52% of plumbers or 58% of electricians. Carpenters overall seemed to be happier in their apprenticeship with 79% happy with how their apprenticeship is progressing and 71% enjoying working in their company. Only 65% of plumbers indicated that they enjoyed working with their colleagues and company. The higher levels of conflict reported by plumbers in general is also concerning, with over a third indicating that they have considered leaving their apprenticeship because of conflict within the workplace. The high level of satisfaction reported by carpenters in their relationship with their employer is certainly encouraging and suggests that the carpentry industry may be doing a better job at creating a positive and supportive work environment for their apprentices. However, it is important to note that the overall experience of carpenters is likely to be influenced by a range of factors beyond just their relationship with their employer, such as the quality of supervision, training, and work tasks.

CONCLUSION

This paper contributes to the understanding of the role in which conflict plays in apprenticeship completion rates. Unresolved conflict has an array of negative impacts in the workplace, including diminished productivity, decreased job satisfaction, increased absenteeism and in worst cases, and in this context - non completion of the apprenticeship. There is a significant percentage of apprentices who have experienced conflict with their assessor or employer, but only a small proportion of them described it as difficult and toxic. This compounds previous works that small levels of conflict are not uncommon in the workplace, and not necessarily a cause for serious concern. However, the fact that a significant proportion of apprentices (20%) have considered dropping out because of workplace conflict or employer conflict is noteworthy. This suggests that conflict within the workplace or with an employer can have a significant impact on an apprentice's motivation and engagement in their apprenticeship. The impact of which such conflict has on individual apprentices can vary due to several factors such as personality, life outside of work, mental health and a plethora of other factors outside the scope of this study.

Overall, these findings suggest that while conflict within the workplace or with an employer can be a significant factor in an apprentice's decision to drop out, it is not the only factor, and other factors may also play a role. It is encouraging to see that most apprentices are satisfied with their employers, supervisors, and workplace, and that their expectations for the role they would undertake during their apprenticeship have been met. However, the fact that 21% of apprentices would not recommend their company as an apprenticeship company is a concerning figure. This suggests that there may be some issues with certain employers or workplaces that could be improved to ensure a more positive experience for apprentices. Although it is positive to see that many apprentices are enjoying their apprenticeship and are satisfied with how it is progressing, it is vital that the sector adopts a continued pursuit of improvement philosophy and continues to self-educate and adopt change which continues to facilitate both the needs of the apprentices and the industry. This paper also provides a foundation for future works around conflict in built environment apprenticeships. Further works to investigate the factors which result in conflict escalating to a point where an apprentice considers resigning would provide invaluable knowledge to potential employers as to how to manage and mitigate these

factors. It would also allow for governing bodies, such as SOLAS, to create framework and or policy around reoccurring factors.

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