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Stakeholder Perspectives on Successful Apprenticeship Completion

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The Australian construction sector continues to face a significant shortage of skilled labor, a challenge exacerbated by high rates of apprenticeship non-completion, a trend also observed in other developed economies. This study examines barriers to apprenticeship completion among participants enrolled in Building and Construction apprenticeships. Employing qualitative methods, data was gathered through focus group interviews with apprentices, employers, and trainers, and analyzed using content analysis in NVivo 12. Findings reveal a multifaceted set of challenges, including educational difficulties, employer-related constraints, financial pressures, unclear career pathways, poor work ethic, and ambiguous role expectations. This exploratory research enhances understanding of the structural and interpersonal factors influencing apprenticeship outcomes and provides actionable insights for vocational education stakeholders.

Keywords: Apprenticeship, Built Environment, Skills Crisis, Vocational Training.

Introduction

The building and construction industry is vital to all modern economies. It is a significant contributor to economic activity and growth, and a primary source of employment. Australia's construction sector, one of the country's largest sectors for employment, wields significant economic influence, contributing to approximately 8% of gross domestic product (GDP) and employing around 1.3 million people (Australian Bureau of Statistics, 2025).

The demand for a trained workforce in specific trades is high and at the forefront of industry skills shortages. In the past, the Department of Education, Employment, and Workplace Relations identified a skills shortage that is expected to persist for the next 20 years (Mavromaras, Oguzoglu, & Webster, 2007). This modern reality continues to be a pressing concern. However, recent data confirmed that a critical shortage of skilled trades workers occurred in all seventeen (17) of the occupations assessed for the 2021 Skills Priority List (SPL) (National Skills Commission, 2021). Despite recent growth in trade apprentices enrolment, completion rates for apprentices and trainees commencing in 2017 are down by three percentage points - from 57% to 54% (NCVER, 2022). This appears to be a worldwide phenomenon, so while the completion rate of apprenticeship training in Australia is consistently low, it is comparable to other similar countries like the UK, USA, Canada, and New Zealand (Misko, 2020). This research sought to identify the key factors influencing three stakeholder groups in apprentice training, with the aim of better understanding how these factors contribute to low completion rates.

Literature Review

Apprenticeships are essential for developing skills in the construction industry, with a long-standing tradition of combining employment-based training with the acquisition of technical knowledge. In Australia, the apprenticeship model originated from Great Britain, though it has undergone significant reforms since the mid-1980s (Stanwick, Ackehurst, & Frazer, 2021). These programs typically integrate on-the-job training with classroom instruction to equip individuals with both practical skills and theoretical understanding for a specific trade or occupation. Progress and competency are assessed through various methods, including written exams, practical demonstrations, and workplace evaluations. Oversight of apprenticeship schemes is handled by statutory bodies within each country or region, such as SOLAS in Ireland, the Institute for Apprenticeships and Technical Education in England, Skills Development Scotland, and Germany's Federal Ministry of Economics and Energy. In some countries, governance is shared among multiple organizations, for example, federal and state governments in Australia or a mix of the Department of Labor, industry groups, and unions in the United States.

Many countries across the globe continue to face challenges with skills shortages and construction apprentice recruitment and attrition (Abdel-Wahab, 2012; Aiyetan & Das, 2018; Baker, Crawford, & Ali, 2023; Howe et al., 2023; Wagner & Kulwiec, 2022), and this issue remains prevalent across advanced economies. However, some researchers argued (McMahon, Spillane, & Bradley, 2023) that meaningful international comparisons are difficult to establish due to differing terminology and definitions used across studies . Countries such as Germany, Luxembourg, Switzerland, Denmark, and Austria have experienced demographic changes, and declining numbers of students are opting to go into or stay in apprenticeships (Misko, 2020). In response, the governments of these countries have implemented programs for early school leavers and initiatives to integrate migrant workers and refugees into the apprenticeship system and broader education and training programs.

Australian apprenticeships share several characteristics with the systems mentioned earlier. Notably, reforms introduced in the late 1980s and early 1990s drew inspiration from Germany's dual system, particularly in expanding apprenticeships to a broader range of occupations through the introduction of traineeships. Germany's dual education model integrates classroom instruction with practical, on-the-job training. After completing a general or intermediate-level qualification, students can enroll in a vocational school (*Berufsschule*) for a program lasting between two and three and a half years. During this period, apprentices typically spend one to two days per week in vocational school for theoretical learning, with the remaining days dedicated to gaining hands-on experience at a company.

Misko et al. (2020) identified additional lessons that Australia could learn from the dual apprenticeship systems in countries such as Germany, Switzerland, Luxembourg, Denmark, and Austria. These include the need for better synchronization of knowledge acquisition and skills development in off-the-job and on-the-job training venues, higher expectations about the nature and level of qualifications required of teachers and trainers, regular monitoring of the market for apprenticeship training positions, and industry involvement in practical assessments.

Factors Impacting Completion

Apprenticeship completions in Australia are impacted by many factors that vary across occupations (Stanwick et al., 2021). However, most non-completers leave the apprenticeship in the first year of their training (Bednarz, 2014). Recent data on attrition indicate that approximately one-third of apprentices and trainees leave within the first year of their contract (NCVER, 2021). Influencing factors include changing demographics, government expenditure and incentives, perceptions of

apprenticeships, and community engagement (McDowell et al., 2011). Substandard working conditions also have a significant impact; these may include low pay, long hours of work, being treated as 'cheap labour', and doing 'dirty work' (Rexe, 2012). Shifts in the economy can also impact identifying employment opportunities for completing required on-the-job training, which may be limited if economic downturns have occurred (Misko, Gu, & Circelli, 2020). According to Stanwick et al., (2021), the top five reasons for non-completion from the 2019 Apprentice and Trainee Experience and Destinations (ATED) survey were:

- Left the job or changed career
- Lost a job or was made redundant
- Disagreement or clash with the boss or other workers
- Offered a better job
- Poor working conditions

In Australia, additional reasons cited for adult non-completion were family or personal circumstances. This is not dissimilar to what is found in other countries. In Canada, older apprentices are less likely to complete. In part, this is due to family and financial responsibilities; however, this cohort can still find work even when they don't complete an apprenticeship, as they already possess significant relevant work experience (Smith, Oczkowski, & Smith, 2008). There are both financial incentives and barriers that influence apprenticeship enrolment and attrition across countries. For example, studies in Scotland, Canada, and the United Kingdom (UK) find an 'inconsistency in income' (Lawani, McKenzie-Govan, Hare, Sherratt, & Cameron, 2022), 'lack of consistent work' (Kelly, Wilkinson, Eyo-Idahor, & Williams, 2022), or 'inadequate pay' (including the cost of travel, maintaining a car, and living expenses) (Daniel, Oshodi, Arif, Henjewele, & Haywood, 2020) contribute to apprentices not completing and tradespeople leaving that career.

Aspects of the employing organisations, such as size, structure, budget, and training culture, can also influence apprenticeship outcomes. Smaller organisations are more susceptible to work fluctuations, and the resource impacts of supervising and training apprentices while keeping the business running can incur significant costs. Research shows that the financial implications for small businesses often deter them (Bednarz, 2014). These small organisations require more support to ensure that their apprentices complete. Larger organisations, especially those that can take on multiple apprentices simultaneously, tend to view apprentices as future employees who are worth investing in. Larger organisations are also more capable of bearing the up-front costs of offering apprenticeships.

Recruitment and selection process

The type of work an apprentice undertakes throughout their training, as well as the suitability or 'fit' of the apprentice, can significantly impact outcomes. According to prior researchers, matching the 'right' person to the 'right' employer is crucial, underscoring the importance of career counselling and pre-apprenticeships, which allow students to experience their chosen field before committing to an apprenticeship (Stanwick et al., 2021). This exposure provides students with an introduction to the trade, helping to reduce mismatches between expectations and reality (Laundy et al., 2016).

Employers employ a range of approaches to recruit and select apprentices. The great majority, however, prefer to 'see before they buy' and want apprentices who are willing to learn, interested in the trade, respectful, and diligent. Family and friend connections were a key means of identifying potential apprentices, as employers already knew the background and history of the candidate.

Industry networks, local high schools, pre-vocational / pre-apprenticeship programs, and school-based apprenticeship programs are other recruitment streams.

In the United States, where women only make up three (3) percent of the trades workforce, there are pre-apprenticeship programs that have been proven to improve the recruitment of women into trades (Kelly et al., 2022; Wagner & Kulwiec, 2022). Usually provided by not-for-profit organisations, these pre-apprentice programs provide 'Job Readiness' classes that support attendees in 'goal setting, interviewing, resume building, financial budgeting, and apprenticeship application guidance' as well as providing support to create 'practical plans for transportation and childcare' (Wagner & Kulwiec, 2022).

Off-the-job Training

Traditional trade apprentices in the Australian system typically undergo a combination of off-the-job and on-the-job training. The off-the-job component is often provided at a training provider venue. In contrast, the on-the-job component is provided by the employer (or workplace supervisor) at the workplace location. Increasingly, more off-the-job training is being undertaken or assessed at the workplace.

Past research indicates high satisfaction with off-the-job training, with authors noting that many apprentices go on to undertake further study, regardless of whether they complete their qualification (Misko et al., 2020). Employers, although generally happy with the off-the-job training, report challenges associated with releasing apprentices to attend training outside the workplace. The issues identified are more related to scheduling time for off-the-job training, rather than with the content or type of provision. Most employers prefer to have their apprentices on-site as much as possible, even though they recognize that trade schools and off-site training are essential components of apprenticeship. Opinion is also divided over the format of off-the-job training, with some employers preferring one or two days of release per week and others preferring block training (Misko & Wibrow, 2020). Those who prefer the day-release option believe that this option will enable the off-the-job component to be completed more quickly. Scheduling training around work demands can be challenging, but research has shown that block training models yield superior learning in practical components (Owen, 2016).

On-the-job Training

Employers highlight the importance of on-the-job training in introducing apprentices to a demanding work environment. Past research has shown that the most challenging things for apprentices to learn in the workplace were related to developing appropriate work habits and routines. Apprentices were perceived as having difficulty following directions and being told what to do (Misko & Wibrow, 2020). Apprentices must learn to manage time pressures, meet deadlines for orders or services, and recognize when a coworker depends on them to complete their work so that the next task can begin (Misko & Wibrow, 2020). Some apprentices perceive that industry tends to be a little 'tough' on apprentices because the aim is to make the apprentice stronger and build character and resilience. 'Up to a certain point, apprentices need to have a backbone, but there needs to be a happy medium' (Misko & Wibrow, 2020).

Technical Training College

Past research has noted that Vocational Education Training (VET) programs may value the delivery of procedural rather than conceptual knowledge, viewing the learners as more 'practical' than

'academic' (Brockmann & Laurie, 2016). Several studies have proposed approaches to addressing the learning needs of apprentices. Brockmann and Laurie (2016) suggest that programmes should be designed in ways that do not assume learners reject conceptual knowledge but engage them in more creative teaching and learning practices.

A key challenge for VET programs is determining how to equip learners with skills relevant to both current and future workforce needs. Technology-focused training is particularly critical and requires close collaboration between employers and training providers to ensure alignment with real workplace practices. Australian Industry Group (2016) advocates for expanding higher-level apprenticeships in response to the digital economy and recommends recognizing new priority occupations to encourage participation in advanced training programs. Misko and Wibrow (2020) further note that technological advancements necessitate strong foundations in mathematics, language, and digital literacy for apprentices to succeed. Where prospective apprentices lack these competencies, VET providers face greater challenges in delivering practical training.

The purpose of this study was to investigate the critical factors influencing three primary stakeholder groups involved in apprentice training, with the aim of developing a deeper understanding of how these factors contribute to low apprenticeship completion rates. Specifically, the research examines why students often lack adequate information regarding available pathways, identifies challenges related to training quality, and explores workplace conditions that fail to provide a supportive environment.

Methodology

This study was exploratory, aiming to examine the scope and nature of issues affecting apprenticeship completion rates. The researchers engaged three key stakeholder groups: apprentices, employers, and technical school trainers. Focus groups were selected as the primary method for exploring the reasons apprentices do not complete their training because they provide a rich, qualitative understanding of complex issues that quantitative approaches cannot fully capture.

Focus groups enable participants to share their experiences, perceptions, and attitudes in a collaborative environment, fostering dynamic discussions that reveal underlying motivations and barriers. The interactive nature of focus groups allows participants to build on each other's ideas, clarify viewpoints, and surface themes that may remain hidden in individual interviews or surveys (Morgan, 1997). Focus groups offer flexibility to probe emerging themes and adapt questions in real time, ensuring depth and relevance in the data collected. Furthermore, involving apprentices and stakeholders in these discussions promotes engagement and ownership, leading to insights that are both authentic and actionable for improving retention strategies.

Initially, a Technical and Further Education (TAFE) college in Melbourne, Australia, was selected because it offered a diverse range of apprenticeship programs. Training staff identified apprentices who were willing to volunteer and discuss their ability to complete their courses. All members of the focus groups were apprentices undertaking training in construction, but a 10-year range of ages (ie, 17 years to 27 years) was included. No incentives were offered to the participants. Each focus group session lasted approximately 20 to 25 minutes and adhered to a semi-structured interview protocol, ensuring consistency in prompts across all groups. One limitation was that only apprentices who were currently enrolled were part of the focus group, and no student who had left their training was included in the study. Two researchers were present during each session: one served as the primary facilitator, guiding the discussion, while the other acted as an observer and systematically documented

field notes. With participants' informed consent, all sessions were audio recorded and subsequently transcribed verbatim for analysis.

A medium-sized, third-tier local firm was selected because it operated in Melbourne's western suburbs near the TAFE. The company is a conglomerate of three construction-related businesses: one manufactures demountable buildings for schools, another provides mechanical and electrical installation services, and the third focuses on general building construction. The focus group included five managers responsible for overseeing operations and apprentice training. At the time of the research, the firm maintained a steady rotation of approximately ten apprentices, all of whom were engaged in building and service trades.

Thematic analysis was conducted by importing transcripts from all seven focus groups into NVivo 12, a qualitative data analysis tool. The process followed an iterative approach using open and axial coding (Strauss & Corbin, 1998). Open coding was first applied to break down, examine, and compare data for patterns and differences. Axial coding then helped establish links between categories, enabling exploration of relationships among themes and sub-themes. Each group responded to prompts and shared personal experiences. The findings presented below reflect insights from the three stakeholder groups.

Findings

Multiple factors, both individually and collectively, contribute to lower apprenticeship completion rates. The literature indicates this challenge is not unique to Australia, as similar issues are reported in countries with comparable systems, such as the UK, New Zealand, and Canada. This study examined three key themes (recruitment and retention, on-site training, and off-the-job training) from the perspectives of three stakeholder groups: apprentices, employers, and trainers.

Recruitment and Retention

Individuals enter apprenticeships through diverse pathways. Findings from this research indicate that all stakeholder groups agree that the entry pipeline is suboptimal. Many apprentices reported they had "just fallen into it" without a clear understanding of what success required. They also noted that they received inadequate career guidance from high schools or training colleges before starting, leaving them unprepared for the experience. Consequently, a significant number eventually leave to pursue other opportunities.

On-site Training

On-the-job training refers to instruction provided in the workplace, typically under the guidance of a supervisor, to help apprentices develop practical skills. Employers clearly support this process, with one noting the importance of pairing apprentices with staff who can provide the most effective learning experience. However, apprentices reported that this was not always their reality; some felt they were treated poorly. They also indicated that employers sometimes made it difficult for them to attend technical college, delaying the theoretical component of their training.

Another concern raised was the importance of developing a broad range of skills. Apprentices felt they had limited opportunities to expand their abilities and were often assigned repetitive, "boring" tasks. Employers, on the other hand, acknowledged that apprentices frequently focus too heavily on one type of work, which prevents them from gaining experience in different areas.

Table 2 On-site Training

Apprentice Perspective	Employer Perspective	Trainer Perspective
I think there's a lot of verbal abuse in the construction industry, (which is) probably why you're getting yelled at, because they're trying to make money.	We have let a few apprentices go, not because they don't turn up; they just don't have what it takes.	
I guess because you're an apprentice you're not exposed to everything. You don't know everything, so you're trying to learn, so you're pretty much just there like, trade assistant, so you're just getting this, and that.	I can't tell you how many times I've met an apprentice that can't hang a door…. apprentices often a do too much of one type of work, while missing out on developing skills in other areas.	
… travelling to work and petrol wise, and when driving around town going to all these different worksites putting maybe AuAU$120-150 a week into (gasoline), takes a big chunk out of your wage.	We tend not to instruct apprentices, instead we put them with a mentor that has good skills, so they learn from a master. It's mostly about labor management.	These guys are working overtime, not getting paid overtime, and then when they come to here (training college) they also don't get paid, and they must pay (tuition fees) to come here. And the employers just say, "nobody paid for me when I was an apprentice, so I'm not paying for them."

Apprentices in Australia typically earn between AU$15 and AU$21 per hour, depending on their trade, the year of their apprenticeship, and whether they are classified as an adult or junior apprentice. According to the Fair Work Ombudsman (2025), wages are calculated as a percentage of the qualified tradesperson rate. Adult apprentices (aged 21 and over) generally receive at least the national minimum wage—around AU$948 per week, equivalent to approximately AU$23.70 per hour for a 40-hour week—while younger apprentices start on lower rates and progress annually. By comparison, an unskilled construction laborer earns roughly AU$27.05 per hour in 2025, indicating that apprentice wages remain significantly below the hourly rates for unskilled workers.

Recognizing the financial challenges apprentices face, Du Plessis & Green (2013) recommend including financial education in the curriculum to assist young apprentices with limited financial experience. Additional measures can help reduce the financial burden associated with apprenticeships. For example, Hong Kong offers stipends to attract and motivate trainees (Osuizugbo et al., 2023) while U.S. programs provide essentials such as clothing, PPE, and tools. These incentives have been shown to improve completion rates (Kelly et al., 2022). However, financial support alone is insufficient; success depends on collaboration among apprentices, training providers, and employers (Daniel et al., 2020).

Technical Trade School

Technical schooling refers to training delivered at a technical college under the guidance of a trainer. In Australia, these institutions are primarily known as Technical and Further Education (TAFE) colleges, which are state-funded; however, private providers also exist. TAFE remains the largest

provider of apprenticeship training in the nation. Employers reported scheduling challenges—particularly with block training—when the training provider's timetable conflicted with periods considered optimal for apprentices to be on-site.

Table 3 Technical Schooling

Apprentice Perspective	Employer Perspective	Trainer Perspective
	Apprentices don't work full time but quickly become important to our projects, it is sometimes tricky to program their absence to attend school.	I've got 16-year-olds dropping out of school because things didn't work out for them. They don't know how to use a computer or do basic math; and that's exactly what the trade relies on. They just can't handle any of it.
I think the quality of training is low and –the effort put in is (also) quite low.	…. the nature of workplaces tend to be very niche; conversely school provides apprentices a greater variety of skills and materials.	Training centres are understaffed. As a teacher, I can't support the students because I am doing (too much) administrative stuff. There should be an administrative person doing that stuff so I can support my students in learning (as much as I should).
We just watched a couple of safety videos and that's it. We don't really do much outside of doing the practical work. That's pretty much like 95% of our course.	Most apprentices say to me that they learn more on site then they do in school….(not sure why they need to spend so much time at school)	I hear a common thing from apprentices saying. 'We don't do any of this stuff at work. Why do I need to learn it (at School) ?'

Apprentices felt that the technical training they received was inadequate, with one noting that they mostly watched safety videos. Trainers at technical colleges expressed frustration over a lack of administrative support, which limited their capacity to teach effectively. Respondents also observed that some apprentices struggled to appreciate the importance of theoretical learning.

Discussion

Many countries continue to face challenges with skills shortages and high levels of construction apprentice attrition (Abdel-Wahab, 2012; Aiyetan & Das, 2018; Baker et al., 2023; Howe et al., 2023; Osuizugbo et al., 2023; Wagner & Kulwiec, 2022). Our findings corroborate previous research indicating a disparity between apprentices' expectations and workplace realities. Furthermore, they underscore that insufficient structured support at both educational and workplace levels significantly exacerbates the risk of attrition.

Vocational Identity Development

Research across developed countries has highlighted a persistent challenge linked to negative societal perceptions of trade careers. Channeling students into specific pathways based on academic performance often reflects assumptions that vocational learners are "non-academic," disengaged from

classroom learning, and capable of acquiring knowledge only through practical experience (Brockmann & Laurie, 2016), which can result in students being poorly matched to career pathways.

The results of this research support the work of Daniel et al. (2020) that finds low academic achievers fall into a trades career, only to discover later that it is not for them, and then do not complete the course. It was noteworthy that all the stakeholders interviewed agreed that many apprentices were ill-prepared and did not receive sound advice before commencement. The findings suggest that early advice on training programs should be improved, and the recruitment and retention of students could be enhanced by obtaining government support to better promote the trades in schools (Howe et al., 2023). By providing students, parents, and schools with a more accurate and transparent explanation of what a career in each trade entails, students will be better matched with a trade and thus more likely to complete their training (Daniel et al., 2020). Furthermore, Powers and Watt (2021) suggest that those considering an apprenticeship should talk to someone in the trade and compare it with other occupations to ensure they make the best choice for themselves.

Psychosocial Work Environment

Employers reported that some apprentices appeared to lack a strong work ethic. This is supported by past research where it was reported that apprentices aged 18-24 are more challenging to retain 'due to generational gaps in work ethic' and are 'not prepared for success in industry with respect to work etiquette' (Howe et al., 2023).

Apprentices expressed a contrasting perspective, reporting strained relationships with their employers—several indicated experiences of bullying and verbal abuse. Previous research has consistently demonstrated that such workplace environments contribute to high employee turnover rates. Ross et al. (2022) found that nearly one-third of construction apprentices surveyed had experienced suicidal ideation which is linked to poor well-being and psychological distress. To address mental health concerns among apprentices, the above researchers advocate for implementing targeted support programs within the construction sector.

Employers acknowledged that training apprentices is more challenging in very small businesses with limited staff. Larger firms, however, appear more willing to accommodate apprenticeship training, likely because they view apprentices as valuable future employees worth investing in. In this study, participating employers managed around a dozen apprentices and reported actively supporting them throughout their training.

Training Culture

Apprentices expressed concerns that vocational training content was sometimes outdated and of poor quality. They questioned the relevance of certain topics, noting that their studies did not always align with workplace skills requirements. Research also indicates that apprenticeship programs often fail to incorporate modern, industry-relevant skills suited to a tech-savvy generation of learners and employers (Callan, Johnston, & Poulsen, 2015; Callan, Mitchell, Clayton, & Smith, 2007).

Trainers defended the curriculum, emphasizing the importance of broadening apprentices' skills beyond those acquired on-site. They highlighted that their programs prioritize conceptual knowledge over procedural skills, positioning learners as "academic" rather than purely "practical." Trainers also noted insufficient financial resources and a lack of administrative support, which they argued detracts from teaching effectiveness and should be managed by dedicated staff. Brockmann & Laurie (2016)

suggest programmes should be designed in ways that 'do not assume learners will reject conceptual knowledge, instead engaging them in more creative teaching and learning'.

The employers did not concern themselves with the content of the school-based curriculum. Instead, they were more concerned about the disruption caused by the apprentices' time away from the workplace. The time requirements are typically set by the training college and vary by trade type and apprentice year level. Requirements ranged from one day a week to blocks of time which could consume an entire week.

Other studies have investigated the benefits for employers and apprentices of e-learning or VLE (Virtual Learning Environments) in apprenticeship programs in Australia and England (Abdel-Wahab, 2012; Callan et al., 2015). Callan et al. (2015) found one of the e-learning approaches in the construction trades was to split the learning content into smaller chunks, enabling apprentices to access and complete practical and theoretical tasks at their own time and pace. Callan et al. (2015) found other benefits to apprentices and employers, including fast-tracking the apprenticeship, improved partnerships between apprentices, employers, and trainers, and increased engagement of apprentices, resulting in a higher completion rate. These studies suggest that, while the use of technology in training apprentices continues to play an important role, investment is needed to ensure training providers have adequate time to provide students with 'individual attention', resources, and the professional development required to deliver quality training programmes (Callan et al., 2015; Daniel et al., 2020).

The purpose of this study was to examine the principal factors influencing three key stakeholder groups engaged in apprentice training, with the objective of understanding how these factors contribute to persistently low completion rates. The investigation addresses the poor dissemination of information regarding available pathways for students, evaluates challenges associated with the quality of training provision, and considers workplace conditions that fail to contribute to a supportive environment. In contrast to contexts characterized by structured guidance and conducive work environments, the findings underscore that deficiencies in information provision and training quality within the construction industry exacerbate apprentice attrition.

Conclusions

This research adopted an exploratory design and utilized focus groups involving apprentices, trainers, and employers, which brings certain constraints. The relatively small and context-specific sample limits the extent to which the findings can be generalized to the broader construction sector. Additionally, the qualitative nature of the study captures insights and experiences but does not provide quantitative evidence of impact or causality. Future studies could overcome these challenges by engaging larger and more diverse participant groups across multiple regions, employing mixed method approaches that integrate qualitative and quantitative data, and conducting longitudinal research to monitor changes over time.

Although apprenticeship non-completion has been a longstanding challenge, this study offers valuable insights by identifying key barriers that, if addressed, could help reduce skills shortages. By exploring a range of contributing factors, the research highlights opportunities for improvement rather than a single quick fix. With targeted reforms and collaborative efforts, apprenticeship systems have the potential to deliver stronger outcomes, meet growing demand for skilled workers, and support a more sustainable labor market.

The literature identifies multiple contributing factors and confirms that this issue is not unique to Australia, as similar challenges are evident in other developed nations with comparable systems, including the UK, New Zealand, and Canada. In many of these countries, vocational education is often associated with negative stigma. Consequently, educators and parents tend to steer academically strong students toward academic pathways, while those with lower educational achievement are directed into vocational careers. This practice can result in mismatches, where some apprentices discover the program is unsuitable and subsequently withdraw. Research suggests that improving the perception of vocational education and providing high school students with informed career guidance about apprenticeships can help establish clearer expectations and enhance completion rates. Future studies could explore how emerging models of vocational programs are perceived.

Construction apprenticeships can involve both physical and psychosocial health and safety risks, which may contribute to program attrition. This study aligns with Misko & Wibrow (2020), who found that apprentices often describe the easiest aspects of off-the-job training as those linked to the low-stress environment of the classroom, while the most challenging elements relate to adapting to the industry culture. Many apprentices also face issues such as harassment, discrimination based on race or gender, and poor mental well-being. The literature recommends implementing training initiatives for both employers and apprentices to foster a positive workplace culture and strengthen apprentices' resilience.

This study reinforces previous findings and highlights how deeply rooted these challenges are. While exploratory, the research shows that no single, straightforward fix exists. Instead, multiple influences—acting both independently and together—lead to lower apprenticeship completion rates. The literature also makes clear that this problem is not unique to Australia; comparable countries such as the UK, New Zealand, and Canada report similar difficulties. Focusing on three key themes—recruitment and retention, on-site training, and off-the-job training—the study suggests that low completion rates in trades training programs are likely to continue for the foreseeable future.

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