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ASSESSING THE SIGNIFICANCE OF THE METAL TRADES BRAND AS A VIABLE CAREER PATH FOR WORK-READY STUDENTS

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ASSESSING THE SIGNIFICANCE OF THE METAL TRADES BRAND AS A VIABLE CAREER PATH FOR WORK-READY STUDENTS

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INTRODUCTION

This study originated from my experience as a business owner within the engineering sector, where I encountered a noticeable scarcity of proficient tradespeople specialising in the metal trade. The disruptive effects of the COVID-19 pandemic and subsequent border closures exacerbated this issue, constraining the influx of skilled immigrants, intensifying pressures on employees and employers, and impacting customers.

Over the past decade and a half, my company has observed a troubling decline in the number of young individuals pursuing careers in the metal trades. The aftermath of the 2008 Global Financial Crisis saw major manufacturing firms, traditionally supporters of vocational training through trade apprenticeships, withdraw from the New Zealand and Australian markets. This withdrawal significantly affected the pool of skilled tradespeople available to the metal trade community, catalysing a transformation in the industry's landscape. The inquiry, prompted by conversations among my business colleagues about labour shortages and the belief, through anecdotal evidence, that young people are increasingly reluctant to pursue careers in the metal trades due to a stronger emphasis on university education, serves as a foundation for Madden et al.'s (2022) exploration of pathways for tradespeople entering higher education.

The recruitment of apprentices has emerged as a primary concern among industry peers, underscoring a perceptible disparity between the expectations of school leavers and the requirements of employers. Research in career decision-making, informed by Bandura's Social Cognitive Theory, emphasises the role of knowledge acquisition through the cognitive processing of information (Bandura, 1986). Bandura (1977) demonstrated that self-efficacy, one's belief in one's capabilities, significantly influences career choices and the level of effort invested in them. Lent et al.'s (1999) exploration, "A Social Cognitive View of School-to-Work Transition," recognises that individuals base their career decisions on factors beyond mere interests, prompting a deeper examination of the key drivers influencing career pathways.

Willis (2017) highlighted the stagnant image associated with the metal trades brand, a sentiment shared among Australian and New Zealand engineering business owners, rooted in historical perspectives, knowledge gaps, and societal attitudes. Operating business offices in both countries afforded me the opportunity, as a company director, to assess shared challenges in labour recruitment and associated brand issues. The post-COVID labour market crisis exacerbated existing difficulties in trade recruitment, with one respondent foreseeing an inevitable acceleration of pre-existing challenges.

Prior to embarking on this project, I held the belief that schools should aim to establish a connection between their educational processes and students' eventual employability. While some educators may argue that direct

alignment with employment is not the primary objective of education (Gibbs, 2000), there exists a correlation that employers, including myself, consider when evaluating prospective hires. Basham's (2011) thesis on the role of career education elucidates the distinction between students' perceived needs for informed career decisions and the capabilities of career advisors to meet those needs.

The research underscores the need for schools to align with Dewey's (1916) philosophy of education, stressing real-world connections and community engagement to nurture students' societal contributions and citizenship.

The primary objectives driving this research endeavour were to understand better the challenges confronting the metal trade sector around career pathways and recruitment, thus enhancing my capacity as an employer and business owner, and to advocate more effectively for the resilience of the metal trade industry and the opportunities it offers for personal and professional growth.

METHODOLOGY AND METHOD

For this research, a mixed-method approach was employed, utilising both an online survey and one-on-one interviews to delve into the perceptions of 'work-ready students' concerning the metal trades. In line with Scharfenberg's (2000) insights indicating that there was limited time dedicated by students to career decision-making, a pragmatic strategy was adopted. Initially, a quantitative survey was conducted to establish a foundational understanding. The findings from this survey then guided the formulation of qualitative questions for subsequent one-on-one interviews with participants.

Invitations were extended to 28 high schools in the Otago region, targeting students intending to leave school within the next 12 months. Selection criteria were based on school participation. A dedicated website was developed to address potential resource constraints exacerbated by the post-COVID environment. This platform disseminated information about the research and researcher and provided instructions for research completion. It also facilitated the process with digital consent forms and presented the quantitative survey in both written and video formats. Representatives from engineering businesses, labour hire, and training and vocational pathway providers made up the other cohorts interviewed. Their selection was based on their geographic location around M&M Autopak's two registered offices: the head office in Sydney, Australia, and the New Zealand office in Dunedin.

Groups Surveyed	Australia	New Zealand
Schools invited	*	28
Schools that participated	*	3
Students who took the survey	*	14
Students who interviewed	*	6
Industry interviewed	4	4
Labour hire	1	1

*Due to country-specific ethics requirements, students in Australia could not be interviewed.

Figure 1. Table of participants.

The interviews were a combination of face-to-face meetings or Microsoft Teams meetings (as per the ethics approval for interviewing minors) and recorded transcripts along with personal observations and note taking formed the research data.

Ethical approval for the research was obtained from Otago Polytechnic (approval number 937), with consultation conducted with the Kaitohutohu Office (KTO) to ensure inclusivity and efforts to encourage Māori participation in the research process were duly considered.

FINDINGS

Group 1: Qualitative interviews with students

The qualitative interviews were conducted utilising the Microsoft Teams video platform, each lasting between twenty to thirty minutes. The online survey played a crucial role in initiating discussions, providing a solid foundation for conversation. The participating students were willing to engage with the research, offering valuable insights into their perspectives and experiences.

The interviews commenced by exploring the students' involvement in after-school or weekend jobs that their parents did not financially support such as cleaning their rooms or taking out the rubbish. This line of questioning stemmed from employers' observations regarding young individuals' work ethic. The discussion delved into why the students decided to seek or not seek part-time employment (Meek, 2023, p. 32).

Subsequently, attention turned to the sources from which students sought information about careers and career pathways. Social media emerged as the primary source for 38 percent of respondents, followed by school careers advisors and internet searches at 23 percent. Surprisingly, 54 percent of participants had not heard of the website, careers.govt.nz (Meek, 2023, p. 34).

Regarding their plans after completing school, responses varied widely. Some expressed uncertainty but mentioned parental encouragement to pursue a university education, while others confessed to indecision, frequently changing their chosen career paths (Meek, 2023, p. 37).

The role of school career advisors was also explored, revealing limited interactions between students and these advisors. However, the small sample size may have constrained the ability to draw definitive conclusions about the impact of career advisors on students' career progression. Engagement with this research by school careers advisors might have provided additional insights (Meek, 2023, p. 100); however, logistical challenges, compounded by the effects of COVID-19 on the education system, made it impractical to interview them (Meek, 2023, p. 94).

Discussions regarding trade careers were somewhat subdued, with most participants lacking familiarity with metal trade careers. Notably, 69 percent of respondents were unfamiliar with the concept, and 85 percent could not define the term 'Fitter and Turner' when presented with multiple options. Those who were aware of trade careers expressed concerns about societal perceptions, associating them with academic underachievement: "I think all my friends are just very, like, high achievers. I feel like, a lot of people look down on people who go into a trade" (Meek, 2023, p. 37).

Further inquiries into metal trades failed to garner significant interest, underscoring the broader issue of students' limited awareness and understanding of trade careers highlighting a clear gap between students and career advisors.

Group 2: Industry

In the industry-focused research segment, operation managers from eight businesses participated, evenly distributed between my company's two office locations in Sydney and Dunedin. Topics covered included apprenticeships, recruitment strategies, targeting female and Māori/Indigenous individuals, and vocational training. Discussions were initiated among the managers regarding the persistent skills shortage in the field.

Apprenticeships and recruitment

Among the participating companies, there was a lack of uniformity in apprenticeship recruitment approaches, with some relying on personal connections with local organisations such as rugby clubs, schools, and chambers of commerce. Social media platforms like Facebook and LinkedIn were embraced by certain businesses for recruitment purposes, particularly by younger managers. Additionally, one manager leveraged their connection within a training organisation to facilitate apprentice recruitment. Variations were noted in the educational assessments to gauge workforce suitability across the industry. These findings underscored the need for tailored recruitment strategies to bridge the gap between prospective employees and the metal trades.

Female apprentices

The non-profit organisation, Women in Trades (n.d.), states that although women represent half of the population, they account for less than 12 percent of trade jobs in New Zealand. Encouraging young people, particularly women, to pursue trade training is seen by this organisation as essential for meeting the anticipated growth in the trade sector.

The need to assess employers' perspectives on this under-representation of females in the metal trade is widely acknowledged. Employers noted a significant shift in attitudes, moving away from the perception of engineering as solely physically demanding towards recognising individuals' determination to excel in their trade. Vocational trainers highlighted qualities such as attention to detail and precision as beneficial for female apprentices.

While reasons for the low representation of females varied, a common concern was the lack of concerted efforts to educate the public about trade careers. An example cited by an Australian respondent was the Housing Industry Association's promotion of the building sector, highlighting its advantages. However, Australia and New Zealand appeared to lack a similar industry-wide support structure for engineering trades, posing a challenge to raising awareness.

Māori and Indigenous recruitment

Although initially beyond the scope of this study, exploration into Māori recruitment was mirrored in Australia by examining Aboriginal recruitment. Responses varied, with some participants potentially adhering to political correctness. Employers in both countries expressed inclusivity but struggled with stereotypes, particularly in Australia, where stereotypes like 'walkabout' were associated with unreliability among Aboriginal workers. Despite positive dialogues, no active programmes addressing Māori recruitment could be identified among metal trade businesses in New Zealand. The research did not examine whether Māori were under-represented in this industry but explored whether this was a missed opportunity for businesses to recruit from this group.

Vocational training

Responses underscored concerns regarding diluted vocational training. The privatisation of Industry Training Organizations (ITOs) in New Zealand was perceived as contributing to a 'box-ticking' approach, detracting from the apprenticeship experience. Concerns were also raised about allocating funds to new trades training centres,

which are seen as prioritising classrooms over practical training. In Australia, the closures of significant Technical and Further Education (TAFE) colleges resulted in apprentices travelling long distances for relevant education.

Group 3: Labour hire

Insights from labour-hire businesses highlighted the impact of overseas arrivals on labour market trends. The industry faced challenges due to a lack of innovation and an outdated focus on traditional models. Demographics within labour-hire settings revealed a shortage of fresh skilled labour, with employees often retained over five years.

Group 4: Vocational pathway and training organisations

Interviews with vocational pathway organisations revealed a passionate commitment to guiding students into the workforce. Despite frustrations with occasional student disengagement and personal challenges, the rewards of witnessing student achievements were emphasised (Meek, 2023, p. 43). Concerns were raised about the traditional focus on university pathways, with limited recognition of apprenticeships as a valid career path. Challenges included private schools' resistance to vocational pathways and the need for greater focus on post-school career pathways (Meek, 2023, p. 44). These insights underscore ongoing challenges and opportunities within vocational education in both countries.

DISCUSSION

Common threads emerged within each cohort from a diverse sample spanning Australia and New Zealand. Initially, my perspective as a business owner and employer introduced a bias toward colleagues' views regarding the work ethic of young individuals and society's emphasis on tertiary education. However, a broader reassessment of this research unveiled multifaceted challenges, necessitating a more unified approach to drive significant progress.

Schools and students

Although school engagement was anticipated as a pivotal strategy to tackle business challenges, the participation of only three out of 28 schools revealed reluctance among others. This discrepancy, attributed to varying individual principals' views, raises questions about aligning the education system with students' future employability. As cited by one respondent, financial incentives for schools to retain students contributed to a reluctance to promote vocational pathways.

Interactions with principals and career advisors shed light on challenges in recruiting a diverse spectrum of students. Career advisors' limited exposure to vocational opportunities, as noted by Basham (2011), influenced their approach. The perspective of one interviewed teacher underscored the tendency to appoint popular teachers as career advisors, though potentially lacking comprehensive work-life experiences. This underscores the imperative for a cohesive approach to bridge the industry's disconnection from the wider community and reshape societal perceptions toward the metal trade.

Of the three participating schools, only 14 respondents completed the survey, and merely six attended the online interview. Correlating this participation rate with Scharfenberg's (2000) observation that students invest little time in career decisions proved challenging. Factors influencing participation likely included school engagement, the academic versus vocational paradigm, sample selection, the research topic, student engagement with career pathways, and the disruptive impact of COVID-19.

The inconsistent connection between schools and industry and vocational initiatives often frustrates providers and educators striving to guide students toward viable career options. Respondents expressed frustration with the gatekeeper mentality of principals, with some schools exhibiting an open-arms policy while others adamantly resisted external influence. Societal protectionism over students was noted, impeding their exposure to vital life skills and experiences crucial for making informed career choices. The perpetual tug-of-war between prioritising university education over vocational pathways further complicated the landscape, with financial incentives often steering students toward university.

Māori recruitment

While Māori participants engaged in the survey, interviews with Māori students were hindered by a reliance on faculty members and a lack of clear outreach strategies for Māori communities. Business respondents highlighted a general absence of historical links between businesses and Māori communities. Employers acknowledging the suitability of the metal trade for Māori emphasised its stability and provision of valuable skills. Madden et al.'s (2022) findings, revealing a reluctance among Māori to move away from their whānau for study, prompted efforts to instil confidence through initiatives such as introducing a whānau navigator.

CONCLUSION AND RECOMMENDATIONS

A mixed method approach of surveys and interviews was employed to establish the views of school students and industry, including labour hire and tertiary providers. Difficulties with gaining access to students at school, combined with COVID-19, were barriers to gaining a more representative sample of views from secondary learners. However, from the limited feedback, it was evident that secondary students were not encouraged into the metal trades industry because of the perception that "a lot of people look down on people who go into a trade," combined with the reluctance of schools to let students leave school early because it puts pressure on the schools' bottom line.

Traditionally, vocational educators and industry recruiters have relied heavily on schools as the primary conduit for reaching students, assuming schools are the default hub for information dissemination. However, the evident disconnect between schools and external stakeholders calls for re-evaluating this approach. Variations in school leadership significantly impact vocational pathways, necessitating a shift away from default engagement with schools.

Research indicates that 60 percent of students now utilise social media and search engines for career-related information. From a student perspective, it seems the metal trade brand is poorly understood. Portraying viable career options to school students through social media may provide opportunities, but with the banning of cell phones in schools, this approach may be less effective. Other alternatives may include targeting youth groups such as cadets, scouting, sports clubs, video gaming clubs, local iwi groups, and the like. It is clear from an industry perspective that recruitment into the metal trades is an ongoing struggle and that the metal trade brand needs to be invigorated.

To effectively reach this demographic, establishing a national body partially funded by the Provincial Growth Fund (PGF) and supported by industry memberships emerges as a promising alternative. This body would serve as a proactive advocate for the metal trades industry, portraying it as a field abundant with opportunities, highly skilled, and environmentally conscious. The saying, "You cannot be what you cannot see," encapsulates this need for such an industry body to overcome existing perceptions.

Members of this national body would benefit from a range of services, including business support, career services, insurance, legal advice, and safety planning. The body's responsibilities would extend to industry

advocacy through public campaigns, media exposure, and support for qualifications. Additionally, events and awards, such as Trade Olympics and initiatives promoting environmental sustainability, would further enhance the industry's reputation for excellence.

The national body would represent the metal trades across various media platforms, aiming to alter community awareness, celebrate achievements, engage with government bodies, showcase innovation, and establish a globally recognised brand.

While the national body model has proven successful in other industries, the unique characteristics of small, independent businesses in the metal trades may lead to a gradual adoption of such initiatives.

Recognising the pivotal role of social media in students' career decisions, the national body would need a targeted strategy for engagement. Learning from successful local initiatives, such as the Southland and Otago Regional Engineering Collective (SOREC, 2018), would provide valuable insights into building a sustainable national body.

Establishing a national metal trades body to represent and advocate for the metal trade industry and change the brand's perception would be a novel approach for the metal trades. This approach, adopted by the engineering industry, shows the importance of bringing a dispersed metal trade industry together and championing the brand, having far reaching benefits, not the least of which may be to channel young people into training, apprenticeships, and career pathways.

The significant awareness gap surrounding the metal trades industry underscores the necessity for a concerted effort to inform and educate students, parents, and communities. A proactive approach involving industry, schools, and government programs is essential to dispelling misconceptions and showcasing the rewarding opportunities within the metal trades. The transition from passive acknowledgment to active engagement in advocating for the metal trade industry reflects the commitment required to shape its future positively.

Reflecting on my journey spanning over 40 years and considering the profound impact of my upbringing on my worldview and sense of self-efficacy, I am reminded of the powerful influence that both knowledge and relationships have had on my life. This sentiment underscores the empowerment that learning and connecting with others bring. Drawing from my experiences as a tradesman, employer, and managing director of an engineering company, this research has instilled in me a sense of duty to share accumulated knowledge with the next generation.

The role of schools, often akin to a political football, presents constant challenges for principals striving to navigate societal shifts and the added pressures of COVID-19. Historically, the struggle for pathway providers and researchers to connect with students through schools has been apparent. Reflecting on the vulnerability of schools' direction regarding vocational pathways, the suggestion arises that the industry may bypass schools and engage directly with students, parents, and whānau through social media.

While the metal trades industry may initially face challenges in achieving cohesion, the success of other trade-based organisations provides a viable pathway forward for its survival. Emphasising the significance of manufacturing, Emeritus Professor at the University of Technology, Sydney, Roy Green (2015), underscores the employment impact of trade engineers in Australia and highlights their fundamental role in supporting the modern economy.

In addressing the challenges and opportunities identified within the metal trades sector, this work has addressed a significant gap impacting the industry. Key insights from the project demonstrate that a closer collaboration between industry and schools could significantly enhance the attractiveness and effectiveness of metal trades as a future career path. Another key takeaway from the findings is that providing learners with experience can create a situation where a workforce becomes not only technically skilled but is also more adaptable to the changing demands of industry. Moreover, building stronger partnerships between schools and industry

stakeholders cannot be overstated. This ongoing collaboration could potentially lead to the development a curriculum that becomes more aligned with what the industry in practice needs. Such an approach would ensure that learners are more equipped with the skills and knowledge employers value most, compared with making assumptions about what employers might need from a future workforce. Additionally, by involving industry earlier in the process, learners could gain real-time access to mentorship and networking opportunities, leading to improved employment prospects.

In conclusion, this work has shown that addressing the identified challenges will require a complex approach that combines innovative educational strategies, strong industry-academia partnerships, and consideration of fast-evolving technology. By adopting these strategies, invested stakeholders can ensure that the metal trade sector remains a vibrant and appealing career choice for future participants.

Looking ahead, the metal trades and associated manufacturing industry are primed for automation and advanced technology. Embracing technology and innovative manufacturing models will contribute to future job opportunities and the evolution of the industry.

Phillip Meek, BAppMgt, MProfPrac, is the managing director of M&M Autopak Pty Ltd, an engineering company servicing the manufacturing industry. Trade qualified as a Fitter and Turner, Phil has 40 years of industry experience in technical engineering, materials handling, and consultancy. www.mmautopak.com.au.

David Woodward is head of apiculture programmes and principal lecturer at Otago Polytechnic's Central campus and an academic mentor and assessor at Capable NZ (MPP, DPP). With a background in botany and zoology, he has been a research scientist, state advisor and head of apiculture, with over 25 years' tertiary teaching experience.

https://orcid.org/0000-0001-5716-8865

Jeremy Taylor is a facilitator and assessor with Capable NZ (GDTE, BAppMgt, MProfPrac and GradDipProfPrac) and is currently studying towards his Doctor of Professional Practice. His research interests include international and comparative education, Chinese transnational education programmes and how to use critical reflection to improve teaching practice.

https://orcid.org/0000-0003-1194-9329

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