

A Skills Shortage: A “Building” Challenge

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Abstract

The skilled trades have long been ignored and under-valued in society. This article explores the potential problem with maintaining the status quo and the impacts it will have on future generations. It considers the steps educational institutions and leaders can make in addressing the skilled trades shortage and how changes to the current graduation requirements in Manitoba can lead to greater career pathways for all students. The goal is to include skilled trades training in the conversation along with improving numeracy, literacy, and information technology across all grade levels.

For the past several decades, a shortage of qualified skilled trades people has begun to emerge. As this problem continues to build, creative solutions will need to be explored to address this shortage. High school students, a demographic that may have been previously overlooked, could offer a practical solution to this burgeoning dilemma. However, students face several obstacles, and are somewhat reluctant to consider a career in the skilled trades even when jobs are plentiful. These obstacles must be addressed to convince young people that a career in the trades is worth exploring. They include overcoming the stigma that is attached to the skilled trades, a flawed credit system that does not recognize skilled trades equally, a slow response time to skill shortages, and a lack of work-based learning opportunities available to students. Practical solutions to overcome these obstacles include better training and awareness to address the stigma attached to working in the trades, changing how high school credits are earned, improving response time to skill shortage gaps, and creating partnerships with industry partners to increase work-based learning opportunities.

Training and Awareness

The stigma that is associated with working in an area of the skilled trades is deeply entrenched in society. Often, those who are interested in the skilled trades are viewed as inferior students. This stigma goes beyond a superficial level, and even extends into higher education, where some academia either ignore or are unaware of the possible career pathways in the skilled trades (Rothwell, 2016). There are several misconceptions that must be addressed to conquer the stigma for students to feel like the skilled trades are a career worth exploring further. Perhaps the biggest misconception is that individuals who pursue skilled trade careers are unsuccessful students compared with their fellow students who plan on attending university (Suttles, 2020). Other misinformation includes the misbelief that all skilled trades work is dirty, only males can perform the work, and wages are significantly lower than careers that require a university degree. These beliefs even extend overseas. For example, in Britain there exists a lack of political inclination to view skills training equally with a university education (The Guardian, 2020). These are all fundamentally wrong assumptions that are often passed down from generation to generation, and require a more concentrated awareness campaign to counter.

The school system, specifically educators and administrators, began this process of weakening the skilled trades training in favor of students attending university (Walsh, 2017). Schools often use a simplistic strategy to deliver the necessary information on skilled trades. One such strategy is using a signup sheet for students to self-register to hear about the trades, rather than requiring all students to get the information to make an informed decision. This is a

flawed process because many students have no prior knowledge of skilled trades, and may not know what they are missing until it is too late. All students need to hear about these opportunities at a younger age, when many are contemplating career aspirations. Students are also ill informed of possible career options that do not require a university degree to make career decisions. Hearing about these opportunities may encourage those students not engaged in learning, or struggling to attend regularly, to find a purpose (Mader, 2019). Increasing awareness also means that parents need to be better informed of the many career options for students, because they are a huge influence on their child's career aspirations. Parents whom I have encountered over the years were not aware of the many varied options, and were still stuck in the belief that a university degree was the only path to a good career. Sadly, a degree is no assurance of a rewarding career (Walsh, 2017). There is a responsibility of elected government officials and school leaders to counter this stigma with a concentrated effort in promoting the trades in all schools, starting at a young age. Perhaps a starting point would be to tailor more information sessions to parents and caregivers to overcome this stigma by raising the profile of skilled trades. The skilled trades have evolved, and those previously held misconceptions must be countered for any meaningful change in attitude to happen.

Changing Credit Requirements

There is a legitimate reason to believe that a flawed high school credit system strongly impacts the skilled trade shortage problem that currently exists. Although there is plenty of blame to go around, the K-12 school system has contributed to a skills deficiency in young workers that plagues the trades (Cappelli, 2015). The present-day school system in Canada has changed very little over the past 50 years, and does not lend itself well to promoting skill acquisition that is necessary for enhancing students' capabilities in skilled trades. Logistics such as the length of the school day, lecture style instructional methods, and graduation requirements remain relatively unchanged. Educational standards like these provide little benefit to those students who are better suited to working in the trades, and more for students preparing for university. Examples include Michigan, where students pursuing skilled trades are required to complete the same graduation requirements as students planning on attending university (Walsh, 2017). Here in Manitoba, similar requirements exist. All students, regardless of pursued career path, must complete 30 credits, 17 of which are compulsory (Manitoba Education and Training, n.d.). Additionally, the curricular outcomes of courses such as math or English fail to consider the type of skills that are required for the trades. These requirements need to be re-evaluated to recognize the specific learning that students gain through skills-based training.

There is an argument to change the way students can graduate. Many employers have little faith in a traditional high school diploma, and routinely require additional training beyond just grade 12. Allowing students to "work" toward graduation outside the traditional classroom can only be viewed as a win-win. Providing opportunities like these may reach disengaged students, and increase graduation rates (Mader, 2019). Requiring students who are interested in pursuing a skilled trade to complete the same courses requirements for graduation is not fair or equitable. One change could involve allowing students to complete compulsory credits, such as math or English, at their respective work experience placement. There is an assumption that those skills are not developed on the job, whereas in fact "on-the-job-training requirements are significantly higher for skilled technical workers" (Rothwell, 2016, p. 48). Teachers would still assess the skills gained at work experience as a suitable alternative to having a student attend class at school, and miss out on a meaningful work experience. Many of the skills that students learn through skills-based learning involve reading, writing, and mathematics, just in a different capacity. Maintaining the current 30 credits to graduate is not realistic in today's work world, and this cookie cutter approach does not work for all students.

Responding to Skill Shortages

In my experience, schools lack the ability to respond quickly to current skilled trade shortages. It can take years for new programs and curriculum to be developed, shops to be built, and staff to be found. Generally, there is a reluctance to attempt to change any programs found in schools, even if they are not meeting the current skills shortage demand. Far too often, a school's infrastructure, teacher experience, and popularity are the sole determining factors of which programs are offered in a school (Hoftijzer et al., 2018). Administrators, often with no trade experience, decide on what programs to offer in schools, without consultation from industry representatives. These are often chosen based on how expensive they are to run, not whether they fill a skill shortage. This can lead to vocational programs that vary quite substantially in quality, without meeting the entry requirements for post-secondary skilled trade programs (Green & Pensiero, 2016). Decisions like this, void of industry input, could mean that students are taking programs that are perhaps not in demand, and offer little hope of employment upon completion.

Addressing how schools respond to skills shortages requires collaboration amongst various stakeholders. It means starting with a common goal, and involving all industry partners in the creation of programs to ensure that all are bought in to the process (Hoftijzer et al., 2018). It also means having industry partners do some of the training on behalf of local schools in a cost-shared proposal if schools cannot secure the necessary funding. This, unfortunately, is quite common because most school funding is outdated and based solely on student numbers (Hoftijzer et al., 2018). This funding model is detrimental to skills programs because class size numbers are usually restricted for safety purposes. Perhaps the future of skilled trades training means an acceptance of cost sharing to fund these trade classrooms, due to the initial cost and magnitude of such programs. If in return, these industry partners want to advertise in the school system, then we must be willing to accommodate this request. These skilled trade areas want a skilled force to meet the demand they are seeing, and we must be willing to partner with them for students to be well prepared.

Creating Partnerships

The last two years of remote learning due to Covid-19, has exaggerated the current shortage of skilled trade workers. Most work-based learning opportunities were cancelled or put on hold during this time. The decision to halt these work experiences created further obstacles for those interested in the trades because much of the learning for the skilled trade programs takes place on actual job sites during work experience. Students learn specific skills such as working in teams, problem solving, and communication skills (Hoftijzer et al., 2018). The vocational teachers I work with indicated that they struggled to replicate this type of hands-on learning during remote learning. This prevented skilled trade students from developing creative solutions and "learning by doing" (Battistelli et al., 2019, p. 364). These are essential skills that all skilled trades students require to progress through their apprenticeships.

The decisions to halt work placements put skilled trade students at a disadvantage. The learning that takes place away from the classroom is unique, and gives potential employers a chance to see both a student's ability and work ethic. Students discover very quickly that the learning environment differs quite substantially between schools and work (Schaap et al., 2012). Without these work-based learning opportunities, the skills shortage problem will only worsen, and the consequences will be far reaching for all of us. To increase work-based learning opportunities, educational leaders and provincial government authorities need to remove barriers that hinder an employer's ability to have students on the job, and provide incentives for partnerships (Hoftijzer et al., 2018). Work-based learning provides many benefits to students beyond just graduating from high school. Recent studies have shown that working in the trades has assisted those in long-term addiction facilities because it benefits them both physically and

mentally (Best et al., 2016). With the ever-increasing number of students who struggle with their mental wellness, skilled trades training could potentially offer an alternative to other treatments. Recent decisions like Apprenticeship Manitoba's (n.d.) decision to increase the trade ratio from one-to-one, to two-to-one is the first step to creating more work-based opportunities for high school students. Furthermore, various levels of government must take additional steps, such as providing more monetary incentives for employers to offset the financial strain they feel when employing young workers. Without these incentives, many employers cannot afford to wait until young workers provide a cost benefit to their bottom line.

Conclusion

Much of the focus in recent years has revolved around educational topics such as numeracy, literacy, and information and communication technology. Forgotten in much of this is a skilled trade shortage that has continued to build to record levels. With an aging skilled workforce, coupled with a rising demand for skilled workers, the skilled trades shortage problem does not appear to be going away anytime soon (Günther, 2014). To assume that enough students will eventually find their way to a career in the skilled trades without intervention is a flawed way of thinking. Regardless of a student's desired occupational path, everyone should be exposed to unique and diversified training (Bartman et al., 2018). If we are serious about addressing a skills shortage, then we need to breathe new life into skilled trades training, including work-based training, in all schools as a first step (*The Guardian*, 2020). The educational system needs to be a leader in this initiative. Skilled trade careers deserve the same recognition as other careers. If the problem is ignored any longer, it may become too big for any meaningful change to happen. Failing to act could have dire consequences for all of us, because skilled trades people are who keep our vehicles running, build our homes, and maintain the infrastructure that we all depend upon.

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