Reflecting on Experience of Investigating the Accessibility of Work-Integrated Learning using a Participatory Research Methodology

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People with disabilities face significant barriers in work and study and are thus underrepresented in both, with only 48% of people in any form of employment and only 6% of people in higher education identifying as having a disability. Work-Integrated Learning (WIL) is becoming increasingly popular in Higher Education to improve employability, however, there are concerns WIL is not accessible to all. This project seeks to understand the experience of students with disabilities in WIL using a participatory research methodology. This paper reflects on participatory workshops conducted for this research and the methods used. While researchers need to keep some key caveats in mind (time, protocols, etc), it is recommended that participatory research be considered by WIL researchers as an approach for further work in the WIL equity space.

Keywords: Work-Integrated Learning, Engineering Education, Disability, Accessibility, Participatory Research

Introduction

People with disabilities face significant barriers in work and study and are thus underrepresented in both. In Australia only 48% of working-age people with disabilities are employed and for those who are employed they have lower rates of full-time employment; this is especially true for women with disabilities who suffer further intersectional barriers (Australian Institute of Health and Welfare, 2020). Similarly in education 6% of Australians in Higher Education report having a disability, contrasting this to the national rate of disability of 18.3% there is a clear underrepresentation (Koshy et al., 2015).

Work-Integrated Learning (WIL) is becoming increasingly popular in Higher Education, aiming to improve student personal and professional development and ultimately their employability. However, there are still concerns about implementations of WIL programs and how well they support equity groups such as students with disabilities, particularly in engineering and IT (Lloyd et al., 2019). Given that WIL is the intersection of work and study and given that students with disabilities face significant barriers in both, there is concern that these barriers would compound and lock students with disabilities out of quality WIL placements (Boye, 2022).

Therefore, a project investigating the experiences of engineering and IT students with disabilities finding and working in WIL placements is underway. The project takes a participatory research approach and a series of co-design workshops have recently been conducted. The findings of those workshops will be reported in a future publication. This paper introduces the study and takes a reflexive approach to research, reflecting and reporting on the facilitator's experience of conducting participatory research in WIL and disability providing insights from the experience.

Background

Work-Integrated Learning intersects work and education for students. It provides experiences in authentic work contexts for students just starting out as pre-professionals, providing opportunities to develop professional skills in-context (Billett, 2009). WIL has been shown to build graduates' career-related skills and their professional networks (Thune & Støren, 2015; Tiessen et al., 2018), is considered pivotal to preparing graduates for future career success (Cretchley et al., 2014; Jackson & Wilton, 2016) and is widely attributed to improving graduate employment outcomes (Silva et al., 2018). While WIL can encompass a multitude of work and industry related activities, this project focuses on typical internship-like experiences.

Globally people with disabilities have low rates of employment and even lower rates of full-time employment, with employment rates half that of the general population (e.g. Australian Institute of Health and Welfare, 2020; Office of Disability Employment Policy, 2021; Statistics Canada, 2017). WIL is seen as a potential solution to this underrepresentation in the workforce, providing an opportunity to develop workplace experience while studying, and a foot in the door to employment. We know WIL can be a transformational experience for students so there is potential this could be the case. However, there is increasing evidence that there is a divide between those who can access quality WIL placements and those who cannot, equity groups such as students with disabilities are potentially getting locked out of these experiences (Lloyd et al., 2018; Paull et al., 2019). One factor influencing this is that equity groups including students with disabilities tend to have less social capital (Lloyd et al., 2018; Paull et al., 2019) to assist in securing a placement and this on top of a limited number of places overall (PhillipsKPA Pty Ltd, 2014) makes it very difficult for students with disabilities to secure quality placements.

Even the structure of many WIL programs serves to lock equity groups such as students with disabilities out. Where WIL placements are an elective component of a course which is common outside engineering and health, it is not uncommon for academic criteria to be stipulated to access the program, limiting these programs to the best academically performing students. These criteria exacerbate inequality, as people from equity groups such as disability often face disadvantage in their education and may not meet these criteria (Peach et al., 2016). Arguably, these programs aim at the wrong cohort with higher performing students often having superior social capital along with their high grades (Tomlinson, 2017) and thus likely will not have as much trouble securing employment as other groups. It should also be noted that there is evidence that academic success and job performance do not always correlate with employers increasingly putting less emphasise on grades in hiring, therefore academic criteria to access WIL holds little value (Patrick et al., 2008).

Methodology

Historically many equity groups, people with disabilities included, have been the objects of and dehumanised in research. To better serve these communities increasingly research methodologies such as participatory research and co-design are being used to provide participants a voice and ownership in research. This project takes this approach, seeking to elevate the voices of students with disabilities to explore and understand *what is the experience of engineering and IT students with disabilities in looking for and working in WIL placements*?

Participatory Research is an approach to research which empathises engagement with stakeholders, a research-to-action approach which incorporates systematic inquiry in direct collaboration with those affected by the issues being investigated (Cargo & Mercer, 2008). It is a spectrum of inquiry which incorporates a continuum of engagement with stakeholders from inform to empower, from outreach to shared leadership and everything in-between (Vaughn & Jacquez, 2020). This approach allows the integration of researchers' theoretical and methodological expertise with the real-world lived experience of those affected by the issues being investigated and in so doing can produce results which can be better translated into community and non-academic settings (Cargo & Mercer, 2008; Vaughn & Jacquez, 2020). While the names can vary for participatory research methodologies by discipline (e.g., Community Engaged Research, Community Science, Decolonizing Methodologies, Participatory Design, and many more), all share the core value of engaging _**with**_ those who are typically the subject of research and researched on (Vaughn & Jacquez, 2020) to inform real-world impact.

A team of one facilitator, an insider themselves with a vision impairment, and ten students with a range of disabilities including autism spectrum disorder, hearing impairment, depression and anxiety, and ADHD, was formed. Through a series of three workshops, they explored their experience in WIL using the Design Thinking process and tools (Tschimmel, 2012). The group was tasked with empathising with each other and the broader disability community, developing key problems students face in WIL, and

finally developing solutions to these problems. To limit impact on students' disabilities and health workshops were intended to be only 2 hours long.

In larger groups the quiet voices can be lost, which would go against the philosophy of Participatory Research. Participatory Research methods should offer "the ability to speak up, to participate, to experience oneself and be experienced as a person with the right to express yourself and to have the expression valued by others" (Abma et al., 2019, p. 127). To ensure all participants had a voice in the workshops two main tools were used, Think-Pair-Share and Yarning (Barlo et al., 2020; Bessarab & Ng'andu, 2010). During each workshop participants engaged in a series of individual, pair/or small group, and whole of workshop activities, utilising the think-pair-share method. The share phase was envisaged as a two-step process, first where participants had an opportunity to share their work and thoughts without interruption, then once all participants had been heard a discussion of what was said was facilitated to bring it all together and to discuss new thoughts arising from what was heard. These methods allowed participants to yarn on the research topic allowing participants to tell their stories to whatever detail they felt comfortable and to tell the story of the pair collaborations.

The participants' findings from these activities will be written up in a future paper and the participants consulted for accuracy of the report prior to publication. This paper takes a reflexive approach to research practice and considered the facilitator's experience and reflections on the workshops and main research methodology, presenting insights from the experience.

Reflective Discussion

High Risk Research

Before the workshops could take place, ethics approval was sought. Setting up research with a group such as students with disabilities is difficult with ethics committees considering your work high risk no matter what your study entails. This means the researcher can expect a rigorous ethics process with numerous revisions and this was the case for this research. This is both good and bad. It ensures that research is thoroughly considered, and risks are taken seriously. But it also limits the volume of research in these high-risk spaces. Women in STEM for example is an equity area of significant research, in part due to the ability to conduct low risk research in this space. Disability in STEM is a research area a fraction the size in part due to always being considered high risk leading some to shy away from this space. I do not propose a loosening of ethics protocols, I would just say be ready for the process, and that the rigorous process will inevitably improve the research so is worth it, it certainly improved the setup of this research.

Reflections on the workshops

From the expressions of interest and the workshops it was clear students were engaged in the research topic and that this was an area of concern for the participants. Most reported poor experiences which often caused emotional distress among other factors. Most had concerns about future poor experiences to come and even some concern over whether their discipline was accessible to them at all. A few however had good experiences that were transformative. The participants' experiences demonstrated both the positive potential of WIL but also the strong potential for negative experiences for this cohort and that more needs to be done to support them.

During the workshops students spoke about how they appreciated the safe space the workshops provided. The strength of the appreciation for a space to speak spoke volumes to the lack of such spaces for this cohort. It was clear they benefited from the space and that there were limited outlets for them to speak about these experiences. While universities do put effort into accessible learning materials, accessible campus spaces, and even some work into adjustments to studies to provide an equitable

experience, the students reported there is limited social support or academic advice provided to these students.

Participatory Research

This project engages participants in data collection, data analysis, recommendations and will consult with participants on reports from the research. However, during these participatory processes there was an internal conflict in the researcher, between researcher as participant and researcher as traditional researcher. Part wished to be insider and to tell stories and engage with whatever direction the workshops went. Part wished to take control and direct participants to the specific question being investigated. This is a tricky position and honestly I think there was room for both halves. Participants need to be given autonomy to explore and direct themselves, but they also need some direction, particularly young participants such as early university students. As a researcher new to participatory methods you need to be prepared for this dichotomy.

Yarning

Yarning asks us to allow others to tell their stories in whatever way and length that takes. This means that Yarning takes time. There was a tension between running on time ensuring participants are not fatigued by long workshops and allowing participants space to tell the stories they wanted to tell and discuss what they wished to discuss. Future workshops could look to increase in length (with breaks to rest) or more workshops over more days to allow for better time management and richer conversations.

A key protocol for the workshops was for all participants to have a chance to speak and to feel heard. Participants were asked to allow people to speak and share during the yarning and to listen. A flaw in the workshop protocol was that this was not made clearer and yarning was never explicitly discussed. In western cultures it is not common to listen without interruption and this can be a difficult concept to internalise. Participants were generally good at listening to peoples' full stories before speaking, particularly with the quieter participants. However, the more extroverted participants did engage with each other in a back and forth regularly. The workshop provided both an opportunity for respectful listening as well as rigorous discussion and both were needed, however, future workshops should include a framework for respectful listening and yarning be made more explicit.

Yarning provided a framework to both provide all participants a voice and to respect that voice. It provided a feeling of safety for all and a feeling of connection. Unexpectedly this meant that conversations did not all focus exclusively on the research but instead at times took on a therapeutic yarning aspect (Bessarab & Ng'andu, 2010). This benefited the participants who expressed strong gratitude for the safe place to talk with people who had experienced similar issues. This however is where strong protocols from the ethics process can come into play as most researchers are not psychologists. The researcher needs to be attentive and listen to participants but also have plans for supporting participants who experience distress through opening up. It should be noted that as well as providing a positive environment for the participants and promoting connection, these yarns also tended to relate back to the research topic in the end providing rich data, therefore this process of allowing participants to set their own agendas and follow their lines of thought can both provide autonomy and respect but also develop the intended research as well.

Conclusions

While this paper did not report on the outcomes developed in the workshops, one key reflection from the workshops was that there was a strong sense that WIL was both an opportunity for these students as well as a burden. Students identified numerous negative experiences and struggles in this space but also had hope and some positive stories for WIL.

These workshops also showed the strength of participatory research methodology and methods in disability and in WIL. Students showed enthusiasm for the project and developed empowerment through the process. The methods used and the stories shared developed a sense of community in the room and provided opportunities for the students to yarn about their experiences and find therapy in that sharing. While researchers need to keep some key caveats in mind (time, protocols, etc), it is clear that these methods could be employed in more WIL research work to benefit other equity groups.

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