

An investigation of barriers experienced by students from equity-deserving groups in a Canadian co-op program

TAUHID HOSSAIN KHAN

DAVID DREWERY¹

IDRIS ADEMUYIWA

ANNE-MARIE FANNON

COLLEEN PHILLIPS-DAVIS

University of Waterloo, Waterloo, Canada

Emerging research suggests that students from equity-deserving groups (EDGs) may experience barriers within work-integrated learning (WIL) that other students may not face, and such barriers may negatively impact students' participation in WIL. Guided by a social justice lens, this study used interviews of co-operative education (co-op) students (n = 30) from EDGs to explore barriers that such students experienced in one Canadian co-op program. Analyses of qualitative data showed that these students experienced non-structural barriers (those that are less explicit, such as internalized discrimination) and structural barriers (those related to policy and practice, both within their co-op program and their host organizations). While some barriers were specific to a given EDG, others were common across EDGs. These findings provide a fuller picture of the kinds of barriers experienced by WIL students within and across EDGs.

Keywords: co-operative education, social justice, access, equity, barrier, Canada

Work-integrated learning (WIL) is often applauded for its positive impacts on students including greater skill development, stronger professional networks, and higher post-graduation employment rates and earnings (Doolan et al., 2019; Govender & Wait, 2017; Wyonch, 2019, 2020). However, emerging research suggests that the benefits of WIL may differ between students from equity-deserving groups (EDGs) and students not from EDGs. Participation in WIL seems to be lower for students from EDGs than for others (Jackson et al., 2023), which suggests that some of the benefits of WIL are limited because of inadequate access to WIL programs. Further, some students from EDGs who do participate in WIL report cases of discrimination, unequal access to resources, underemployment, and other forms of inequality. Such inequality is now documented for EDGs such as international students (Gribble, 2014), women (Ademuyiwa et al., 2023), Indigenous students (Gair et al., 2015), LGBTQ+ students (Cukier et al., 2018), and students with disabilities (Gatto et al., 2021).

Although previous research has identified issues of access and equity for students from EDGs in WIL, it has been limited in at least two ways. First, most of the previous research in this area focuses on a single EDG. While this is helpful for identifying problems and solutions to those for a given group, it fails to recognize the more general issue of equity that is pervasive across groups. For instance, it is documented that some LGBTQ+ students feel excluded in WIL workplaces (Mallozzi & Drewery, 2019). Similarly, women report feelings of exclusion (Arthur & Guy, 2020). Thus, there seem to be issues that may be common across EDGs. Exploring such issues may provide a more general common ground on which WIL stakeholders can think about access and equity in WIL. The present study addresses this gap by exploring barriers experienced by students from various EDGs rather than focusing on students from a single EDG.

¹ Corresponding author: David Drewery dwdrewery@uwaterloo.ca

The second limitation of previous research on access and equity in WIL has been an underrepresentation of students' voices. Much of the WIL research on this topic is quantitative (e.g., Ademuyiwa et al., 2023; Gatto et al., 2021; Jackson et al., 2023). Such research seeks to generalize findings from a sample to a population. This is important to understanding associations, trends, and norms in data, but it often entirely misses deeper meanings that individuals attach to their experiences (Creswell & Poth, 2016). Alternatively, qualitative research is useful for exploring meaning. Yet, qualitative research on access and equity in WIL often focuses on stakeholders other than students, such as organizations and their members (e.g., Itano-Boase et al., 2021; Mackaway, 2016; Mackaway & Winchester-Seeto, 2018). The present study addresses this gap by focusing on students' voices. By attending to students' voices, this paper aims to generate deeper understanding of the barriers experienced by students from EDGs in WIL.

LITERATURE REVIEW

Defining Equity-Deserving Groups (EDGs) in Canada

The concept of EDGs describes several groups of people who have been marginalized in society and who deserve equity in response to marginalization (see Milaney et al., 2022 for an example). The present study adopted a definition of EDGs that was offered by institution at which the study was conducted, one that defines EDGs as including but not limited to the following groups: women, racialized peoples, members of 2SLGBTQ+ (double-spirit, lesbian, gay, bi, trans, and queer) communities, people living with disabilities, people who identify as members of a racialized community, who exercise cultural and/or religious practices, and any intersection of these identities. Indigenous groups in the land we now know as Canada include First Nations, Inuit, and Métis communities, who are sovereign nations with inherent rights. Also, we considered international students as an EDG (Harvey et al., 2016; Kim, 2016). This definition of EDGs is consistent with definitions of EDGs in other disciplines (at least within Canada where this study is situated) such as sport (Gurgis et al., 2022), public health (Milaney et al., 2022), medical education (Protudjer et al., 2022), and engineering education (A. Khan et al., 2021).

Barriers in WIL for Students from EDGs

There is a growing body of research on the general concept of barriers that students from EDGs might experience in WIL. As mentioned earlier, general feelings of exclusion have been reported by several EDGs in WIL (Arthur & Guy, 2020; Drysdale et al., 2021; Mallozzi & Drewery, 2019). Such feelings are not unique to WIL (Akpanudo et al., 2017) but may be especially troubling for WIL students who are near the beginning of their career journeys. Similarly, students who are Black, Indigenous, or Persons of Color (BIPOC) report receiving subtle discrimination (i.e., microaggressions) and, sometimes, explicit discrimination at work (Gair et al., 2015; A. Khan et al., 2021). International students, another EDG, face barriers such as lacking language and cultural competencies and limited social networks (Felton & Harrison, 2017; Gribble, 2014).

Some of the barriers documented in the literature have been explored for only a single group but may be more prevalent. Consider relocation as a barrier. Some students seek jobs that require relocation from wherever they are studying. Cammy et al. (2021) found that many students with disabilities find such travel demands restrictive, which limits their access to certain jobs and, in turn, may have consequences for their success in competitive WIL labor markets. It seems likely that students from other EDGs, such as international students, would find relocation a barrier, too. This example

demonstrates that the focus on multiple EDGs in the given study could reveal more common themes that are not yet documented in the literature.

Other barriers reported in previous research are related to programming provided by institutions. For instance, Gatto et al. (2021) found that many students with disabilities in WIL report that they do not have access to disability services at their institutions. Perhaps all post-secondary institutions are mandated to provide such services, however there may be gaps in service quality related to miscommunication or failing to reach students at the right moment. This is consistent with other research that suggests many of the barriers to engage in WIL are related to a lack of supporting students as they navigate the typical demands of school-to-work transitions Hora et al., 2019; Stirling et al., 2021). The present study focuses on students' voices to reveal how the issues described above might be addressed.

THEORETICAL FRAMEWORK

The study used a social justice lens (Rimke, 2016) to investigate the experiences of equity-deserving students in the context of co-operative education (co-op). Here, co-op refers to alternating academic and paid work experiences each typically lasting about four-months long. The social justice lens stresses an analysis of how social injustice - which is culturally constituted and produced, socially maintained, politically oriented, and reproduced through the given system and structure - creates stigmatization, discrimination, and even dehumanization for certain groups in society (Rimke, 2016). From this perspective, social justice refers to the extent to which society ensures equal distribution of access to resources and opportunities in the political, economic, institutional, and social domains (Rimke, 2016). The basis of social justice is that all individuals and groups have universal human rights such as access to education and that actors in society should strive to improve social conditions for those who are politically, economically, and socially disadvantaged or marginalized (Rimke, 2016). More than that, the intention is that everyone benefits but the marginalized groups should benefit most (i.e., restorative justice and the fair (re)distribution of resources) in response to historical, political, and cultural exclusion (Mestry, 2014). Injustice is perpetrated by social systems (such as educational programs) and can be addressed only through analysis of such systems. This lens was useful in the present study because it helped us to identify injustices (or barriers) that limit access and equity in WIL.

METHODOLOGY

Study Design

Given the focus on social justice and students' voices, the study used a qualitative methodological approach. Consistent with this approach, students' experiences were collected through interviews and the researchers reflected on such experiences using an interpretative paradigm that emphasizes the personal meanings people associate with an experience (T. H. Khan & Raby, 2020). This approach was used to unpack the underlying meanings embedded in equity-deserving students' stories and how those are situated in a larger cultural context of a co-op program. The study was approved by the Research Ethics Board at the University of Waterloo (project #44393).

Sampling, Recruitment and Participants

Potential participants were students who self-identified as a member of an EDG and who had experience within the co-op program at the University of Waterloo. Such experience could include applying for jobs, interviewing, securing a job, or completing a work-term. EDGs were defined for

potential participants in recruitment materials using the definition provided earlier in this paper. Potential participants were contacted through their institutional email. They received a study information letter and offered opportunities to participate in interviews. The initial response to recruitment was overwhelming. Nearly 1,500 students indicated that they wanted to share their experiences with the researchers. However, due to resource constraints and the qualitative approach to data collection, many students were not given the chance to share their experiences. Instead, participants were selected at random, adjusted for the size of the EDGs (in our recruited sample) to which they belonged. Specifically, 30 students were interviewed using audio/video conferencing. Interviews occurred between October and December 2022 and lasted an average of approximately one hour. Table 1 shows a selection of participants' characteristics.

TABLE 1: Selected participant characteristics.

Code	EDGs	Work Terms Completed	Faculty
p1	Racial minority, woman	Four	Science
p2	Person with disability, racial minority, woman	Not mentioned	Engineering
p3	2SLGBTQ+, international student, racial minority, woman	Four	Mathematics
p4	Racial minority	Three	Mathematics
p5	Racial minority	Not mentioned	Health
p6	International student, woman	Two	Environment
p7	International student, woman	Not mentioned	Arts
p8	2SLGBTQ+, racial minority, woman	Two	Science
p9	2SLGBTQ+	Two	Science
p10	Racial minority, woman	Not mentioned	Health
p11	International student, racial minority	Not mentioned	Engineering
p12	Indigenous, international student	Two	Arts
p13	International student, woman	Four	Health
p14	Person with disability, woman	Three	Arts
p15	2SLGBTQ+, woman	Four	Arts
p16	2SLGBTQ+, Indigenous, person with disability, racial minority, woman	One	Arts
p17	Racial minority, woman	Not mentioned	Arts
p18	2SLGBTQ+, person with disability, woman	Not mentioned	Arts
p19	Person with disability, woman	Not mentioned	Engineering
p20	2SLGBTQ+	One	Science
p21	Racial minority, woman	Three	Engineering
p22	Person with disability	Three	Science
p23	2SLGBTQ+, person with disability, woman	Two	Science
p24	Person with disability	Not mentioned	Mathematics
p25	2SLGBTQ+	Two	Mathematics
p26	International student, person with disability, woman	Two	Mathematics
p27	2SLGBTQ+, woman	Six	Engineering
p28	International student, racial minority, woman	Two	Mathematics
p29	Person with disability	One	Mathematics
p30	International student	Not mentioned	Mathematics

Data Collection

In-depth interviews were used to give time and space to each person so that they could share culturally sensitive information related to their identity and how that was connected to experiences of barriers in WIL. The interview guide aimed to explore the nature of barriers that participants experienced and the location of those barriers, such as whether they were related to the program (e.g., job application processes) or the work itself (e.g., employers' policies and practices). The interview guide included questions and follow-up questions that encouraged participants to share their stories. Interviews were audio-recorded and transcribed verbatim. Detailed field notes were taken after each interview to describe encounters, including the immediate impressions and context, and analytic insights. Importantly, the interviewers were graduate students introduced to the researchers by the last author of this paper. All interviewers self-identified as being from an EDG. The intention was to have interviewers who were sensitive to some of the issues participants would be speaking about so that interviews would be better able to guide the interviews than someone knowledgeable about WIL but not from an EDG.

Data Analysis

The first author of this paper conducted most of the analyses reported here. Analyses began with reading transcripts several times, developing a codebook, developing themes and subthemes, and identifying core elements associated with each theme. Of importance, data analysis followed a mixing of deductive and inductive coding. Emergent codes were informed by the data and the literature familiar to the first author. Then, using NVivo (a qualitative data analysis software), codes were rearranged as themes to better represent overall patterns in the data. Such themes were further scrutinized and updated by the first and second authors of this paper over several weeks. This served as a check for rigor in the analyses.

FINDINGS

Non-Structural Barriers

The first major theme that emerged was students' experiences of non-structural barriers. Non-structural barriers were non-visible and unconsciously embodied or encountered in dealing and interacting with several stakeholders (e.g., employers, co-workers, co-op facilitating university). Two kinds of non-structural barriers emerged in the data. The first of those was disclosure and social stigma. This referred to issues related to disclosing identity to others. This theme was pervasive across EDG(s). For example, many participants (p15, p18, p25, p29, p8) from the 2SLGBTQ+ group reported concerns about disclosing their identity due to perceived prevalence of relevant discriminatory beliefs. For example, one participant (p15) who was female and identified as 2SLGBTQ+ reflected on her experiences in this way:

There's definitely a lot of hesitance for me because, basically, I'm not straight, and I know some of my peers are homophobic. So, if I know some of my peers are, I don't want to [let] any of my co-op employers or recruiters [know about my identity] because I'm like, oh, if my peers are homophobic and they're graduating, they're turning into these positions, right?

Another participant (p20) from this same group was concerned about others' responses to their identity during recruitment:

I do believe that interviews were a bit more challenging to make a good impression because of my identification, whether that was like subconsciously or consciously made by an interviewer, but I do believe it had an impact, so I did not want to mention that.

What is clear in these quotes is that many students (including p15, p18, p25, p8) from EDGs felt pressure to mask their identity from prospective or actual co-workers and employers. Such pressure was described as usually implicit and nuanced rather than overt (p15, p20, p8, p29) but it was still perceived as discriminatory.

When asked about this further, some participants reported that masking their identity was preferable to sharing their identity because sharing their identity would limit their access to good jobs (p15, p18, p8, p29, p25) or would have a negative impact on their mental health at work (p18, p20, p25, p29, p8). That is, they feared that revealing their selves to others would lead to being discriminated against both during recruitment and after securing a job. For example, a student with Down Syndrome (p29) studying in the science and engineering field, reflected on their experiences that disclosing their disability issues might affect the chances of getting jobs and complicate the relations with employers and co-workers:

I don't really want to tell many people because it's just literally based on my experiences in my life, there is a significant, not majority, but significant chance that the people involved just will lose all their respect for me because I'm disabled person and maybe not explicitly in their head think about this, but they'll start treating me differently and start not having a good attitude towards me.

For other students, perceived discrimination based on their identity occurred during the co-op work term. For example, one participant (p15) expressed concerns that she could not openly and candidly interact with her colleagues in the workplace. She often censored herself, as described in this quote:

It's simple questions like, how was your weekend that it's like, you know what? I think I have to omit half the details because it's like I know your perspective and values on certain things [...]

When this sort of event occurred for participants, they felt that their relationships with their colleagues were impacted. Specifically, efforts to mask identities led to less socializing with co-workers (p15, p18, p8, p25). Often, this undermined their work experiences in various ways.

Many participants described that the dynamics of identity, disclosure, and discrimination were not specific to co-op. Rather, they told us that these issues did not differ between work and other domains of life. For example, one participant (p29), a student with a disability, captured this sentiment in the following way:

[...] the co-op program feels kind of just like it meets the average of what I expect to happen in my day-to-day life. There are sometimes people who try to be accommodating and nice. Sometimes they are effective at that; sometimes, they're not effective. Nonetheless, eventually [it is] people's like mentally, it's just kind of this thing in your head of there are people who claim to be disability friendly, and some people are [not] disability friendly. It's a crapshoot of which one you get.

Perhaps because of this perceived widespread societal injustice, many participants seemed to internalize prejudice. Despite reporting to us that they were discriminated against, some participants

seemed to accept some discrimination as normal and expected. The clearest example of this was offered by a woman who identified as 2SLGBTQ+ and who was studying engineering. She shared the following story about one recruitment experience:

[...] when I was interviewing at some company, I just felt like they might prefer more male applicants, because like [...] me and my friends have similar résumés and similar projects. I did not get the interview, and my friends received the interview, so I don't know why? I think that might be a reason, but that's only happened once or twice but it's really rare.

The way that this participant excused the wrongdoing (i.e., “that only happened once or twice”) suggests just how pervasive issues of discrimination are. The student reported that they were qualified for an interview, felt that they were overlooked during recruitment because they belonged to an EDG, yet rationalized that this was, essentially, acceptable. What is evident here is that barriers experienced by students from EDGs in WIL are complex, institutionalized, social issues that are much bigger than WIL programs themselves.

A finer point about the non-structural barriers theme is that some non-structural barriers were pervasive across EDGs, and others were specific within such groups. General feelings of exclusion led most students from EDGs to consider whether to disclose their identities. They sought organizations that were welcoming and avoided ones that were not. Their membership in EDGs also impacted (often negatively) their relationships with others at work. These were general observations in the data. But such barriers were nuanced for specific EDGs. For example, many participants who were women (p3, p16, p27) described their academic disciplines or field of work as “male-dominated.” They reported that they were often not welcome at work because their gender was inconsistent with a broader culture, especially in “male dominant fields [...] software and engineering and stuff” (p27). The point here is that while students in all EDGs might experience non-structural barriers, some of those barriers look and feel very different for one group than they do for another.

Structural Barriers

The second major theme that emerged from the data was that many students from EDGs experienced structural barriers. Structural barriers were policies and practices within students’ co-op programs or employers’ organizations that conflicted with EDG membership. Whereas non-structural barriers were invisible, structural barriers were quite identifiable.

One of the main structural barriers that participants described was an information gap. This information gap referred to discrepancies between what students knew about policies and practices relevant to their EDG and the real features of those policies and practices. Many participants (p14, p16, p2, p29) reported that there was a lack of information from employers and the university about how and where to obtain accommodations, resources, support, and how and where report harassment and discrimination. For example, a female student (p14) living with disabilities commented: “I just don’t know who to go to about that. Like, I don’t know if it’s HR and nobody’s really told me who I would talk to get accommodations.” Likewise, a female student (p16), who is an international and BIPOC student, experienced sexual harassment, and went on to reflect on her experiences: “harassment and discrimination aren’t even reported, right? It’s like, oh, I experienced that. But like, I don’t know who to go. Like, who’s gonna listen to this, right?”

It should be noted that students in this study were in a co-op program with several clear policies related to these participants’ concerns. What mattered was that many of these participants (p19, p14, p29) were

unaware that helpful resources were available. Thus, there was an information gap between what was actually available and what students thought was available.

Alternatively, participants reported an information gap between their own understanding of how to be accommodated and others' understanding of how students should be accommodated. Some participants (p22, p14) mentioned that although co-op advisors, academic advisors, and supervisors were often willing to help, there was a lack of understanding about how to accommodate and address students' concerns. One participant (p14) with disabilities explained in this context:

[...] it was just weird; they didn't have a lot of training on stuff like that. Like they had obviously about equity and inclusion and accepting everyone, blah blah blah. But there wasn't like, here's the person you go to if you have questions or like, here's your resources [...] But it just, unfortunately, they don't realize this because most people don't have disabilities. So, they don't think of what you might need.

In-person work was mentioned by many students (p18, p23, p24, p27, p28) as a structural barrier to their WIL experiences. This seemed pervasive across all EDGs, but there were nuanced differences between groups. 2SLGBTQ+ students (p18, p25, p16) generally reported that the increased socializing associated with in-person work increases opportunities for discrimination and microaggressions. For example, one participant (p18) said:

I only ever experienced any kind of systemic barrier in an in-person environment. And in part because when you're in an in-person setting, you get to hear a lot of people like beliefs and opinions that extend beyond the like, pure work [...]. And whereas when you're just like in the lunchroom or like hanging out in a cubicle with people, you just get a lot of the little like pieces of their identity. And the only sort of, like, negative barriers I faced came from those little social pieces of people's identity, not from anything related to the work specifically.

Some of the participants with disabilities (p19, p23, p24) also said that in-person work was a barrier because it increased the visibility of their disabilities. For example, a student (p24) who had a mental health issue (OCD) stressed that:

barriers have been more noticeable when I'm working in person, and a large part of the reason is that when I'm working in person, I'm at the office, and so I feel like people can see what I'm doing all the time. And so I feel like there's more reason for me to try to avoid certain behaviors because people can see me. Whereas if I'm like working from home, I can take a step away from my desk whenever I need that time and so and because like everything is through video, I feel like it's less likely that people will be able to notice certain things.

Although remote work seemed to help limit problematic social interactions for some, it also limited opportunities for desirable connections for others. Some international students (p10, p12), students with disabilities (p14, p29), and students from sexual minority groups (p25) shared that in-person or hybrid work was preferable to remote work because remote work made networking with others difficult. One participant (p25) put it this way:

So my next job that I'm actually working at, I'll be going in maybe like once every two weeks or something, which is a little better than fully remote. So I'm hoping that I could I guess take that opportunity to like feeling more connected to my co-workers as this is the last time I was working.

These students' experiences seem to suggest that perspectives on remote work among students from EDGs are varied. While remote work can be a barrier for some, it may actually be helpful for others.

The data about structural barriers suggested that barriers reside with the co-op program itself and within host organizations. Often, participants spoke about policies and practices within the co-op program that they found problematic. For example, at this institution, there is a policy that discourages students from backing out of a scheduled interview with an employer. Yet, according to at least one participant, adhering to such policy conflicted with a need for accommodation. One student (p14) living with disabilities commented:

It was like minutes before my interview and I like had to call and like my voice was shaking because I was, like, scared. They were gonna say too bad you have to do it. But they were nice about it. I just think it sucks to have to call this random person and explain your situation because you're scared to get kicked out, you know? So, I just think they don't really think of that side of, like, the accommodation.

For international students, specifically, fees paid to the co-op program were considered barriers (p3, p12, p13). They claimed that such fees were high, higher than fees owed by their domestic peers, yet they felt that they were not receiving adequate support from the co-op program in return for those fees. It seems important to note that at the time of this writing, the fee paid by international students to the co-op program is the same as that paid by domestic students. Certainly, tuition might differ between international and domestic students, but that is beyond the scope of a given WIL program. Nevertheless, international students who participated in interviews perceived this as a barrier for them. Of course, this is a contentious issue for any WIL program that charges a fee. This further suggests that some barriers are specific to a given EDG.

Other barriers resided with the employer. Many participants (p2, p14, p21, p22, p25, p29) suggested that their employers lacked training that would have helped them offer support to students from EDGs. For example, some participants (p14, p22, p29) said that, despite appeals from co-op staff, employers were unable or unwilling to provide adequate accommodations. These participants discussed how the lack of diversity, inclusion, and representation in the organization, and inadequate policies to embrace these concepts, made them less content and comfortable at work. For some students (p18, p27), a lack of training seems to be a culprit in instances of blatant discrimination at work from employers or coworkers. Relatedly, students from EDGs pointed out issues in employers' job advertisements. While one participant (p25) mentioned that statements in job postings about diversity and inclusion were appreciated, others mentioned that they did not see their EDG status reflected in employers' job postings. This created a sense of exclusion before a co-op work term even started.

Other Issues

Several issues were not coded as non-structural barriers or structural barriers yet seemed problematic, nonetheless. Such issues may be pervasive, and not specific to students from EDGs, but they are mentioned here for the reader's consideration. One such issue was that the demands of a WIL program sometimes conflict with the demands of academic studies. For some students (p12, p25, p29), balancing course loads while competing with peers for jobs was difficult. This was especially clear for students who perceived that they were in fields that were less inclusive and tolerant of diversity (p8, p23, p27, p29).

Another pervasive issue was housing. Many students (p13, p12, p19, p27) reported the difficulty of finding short-term, affordable, suitable housing within a limited time frame for a co-op work term somewhere away from the university campus. They mentioned a lack of support from employers and institutions to find housing (p12, p19), and some (p30, p7, p28) said that they were lonely living away from their peers. Housing is a national issue, bordering on an international crisis, and seems far bigger than WIL programs. As well, students who are not in EDGs face the same challenges when seeking housing for a co-op work term. Still, it was a serious barrier for many of these participants.

Other participants (p13, p22) were frustrated about the job search process in co-op. As one participant (p22) explained, "I don't know if that really calls for a systemic issue with an individual with disabilities, but it definitely felt like an issue where the whole process of searching for work just felt confusing." Later, that same participant said that "especially in post-interview, there's not necessary feedback for like why you weren't chosen for a position that makes sense. It just feels like students are often left in the dust [...]" Other students (p14, p21) were confused and frustrated about what they saw as "last minute" changes to employers' job postings, specifically where employers changed jobs that were advertised as being a remote position into ones that were in-person. Indeed, the recruitment process can be challenging for anyone. More than that, in co-op, recruitment involves a delicate balance between students and employers. Occasionally, employers' needs evolve in ways that may be inconvenient for students. This is demonstrated in the quote about a last-minute change to the job arrangement. For students from EDGs, such situations can be perceived as legitimate barriers to accessing meaningful work.

Success Stories

While the focus of the study was on barriers, some participants mentioned success stories in which they felt supported by the institution and/or employers. One participant (p3) offered that their membership in an EDG (women) provided access to several supports:

So, one thing I want to mention is that as a woman, I feel like we are provided with many resources. I feel like we're provided more opportunities compared to the men. So, for example, we have women in [computer science], some like the woman's tax speaker series, and some conferences are open to female programmers. So, I feel like we are well supported.

Other participants (p16, p18) told us that some of their previous employers were inclusive, and this made it easier for these participants to disclose their sexual identity. Another participant (p11) who was from a racial minority group and an international student told us that they were "very like lucky and have like a lot of my managers be women or like people of color." Another participant (p4) who was a South Asian international student firmly stated that they felt included at work. They expressed their experience in the following way:

I think I actually had the opposite experience. Once I was actually at work. Once it was actually part of like the team or whatever, like my managers, my co-workers, the staff would make a lot more effort. They would be like "is this the correct way to pronounce your name, feel free to tell us like, don't worry if we mess it up or whatever. Like, we want to know." Stuff like that. So, I guess because like once you're hired, they have invested a lot more into you and at that point they kind of care a lot more about you than they would if you're just basically another name on a resume... which is like very helpful.

These instances suggest that there are cases in which students were supported and in which membership in an EDG was not a barrier to a successful WIL experience. It is the researchers' hope

that these quotes inspire WIL stakeholders to understand and address barriers experienced by students from EDGs in WIL.

DISCUSSION

A social justice lens was used to investigate barriers experienced by students from EDGs in WIL. Analyses of participants' stories and experiences revealed that students from EDGs face a variety of barriers throughout their co-op journey. Some of the barriers are pervasive across EDGs. For example, virtually every participant mentioned experiences of social stigma in their program. Other barriers were unique to a particular EDG. For example, the dynamics of remote work were especially complicated and often problematic for students with disabilities. This suggests that the present qualitative analysis of barriers at the level of EDGs, which was novel in the WIL literature, revealed new insights about the similarities and differences in barriers for marginalized students in WIL.

Non-Structural Barriers

There were two main kinds of barriers that students experienced: non-structural and structural. Non-structural barriers involved conscious and unconscious biases and structural barriers represented problematic policies and practices. This two-category interpretation of major barriers in WIL for students from EDGs is mostly consistent with previous research on this topic (Bell et al., 2022; Gatto et al., 2021; Gribble, 2014; Itano-Boase et al., 2021; Mackaway, 2016; Thakur, 2021). Yet, the present study is unique because it amplifies the voices of students who are experiencing the barriers. The hope is that students' voices will resonate with practitioners and inspire change.

Among the non-structural barriers that participants mentioned, the one that was mentioned most often was about disclosing identity. For many participants, membership in certain EDGs was not necessarily public knowledge (sometimes, this is called invisible identity). For instance, several students who identified as 2SLGBTQ+ did not necessarily reveal membership in that group to others. Throughout their co-op journey, such students often felt uncomfortable revealing their EDG status to co-op staff and to employers. They anticipated that sharing their identity with others would lead to negative consequences such as being overlooked by employers during recruitment or feeling excluded at work. This theme is not new. The literature already acknowledges that students from EDGs often conceal their true selves (Cammy et al., 2021; Corrigan & Wassel, 2008; Gatto et al., 2021; Gouthro, 2009; Kwok & Kwok Lai Yuk Ching, 2022; Mallozzi & Drewery, 2019; Rillotta et al., 2021). Thus, the present data reaffirm that students' experiences of sharing their identity within WIL remains a key issue for WIL stakeholders. Future research should explore identity, identity disclosure, conditions that encourage identity disclosure, and the consequences of both disclosing and withholding one's identity within WIL for students and their employers.

It is important to remember that such non-structural barriers within WIL are deeply interwoven with broader social phenomena. Although participants experienced, for example, internalized discrimination within a WIL setting, barriers such as this cannot be uncoupled from social forces that are much bigger than WIL. Consider that women mentioned barriers related to working in male-dominated job markets. This has been a general issue in labor relations for a long time (Akpanudo et al., 2017; Arthur & Guy, 2020). Similarly, students with disabilities talked about struggles throughout the employment process. Again, this is not unique to WIL. Other research suggests that employment rates are lower among youth with disabilities than among youth without disabilities (Friedman, 2020; Gatto et al., 2021).

It seems then that many of the pervasive barriers to quality employment that persist in society are present in WIL. Thus, if the WIL community aims to understand and address barriers experienced by students from EDGs in WIL, it must also consider the larger conversation about access and equity to work in general. The researchers maintain that a social justice lens is useful for that kind of work because it reminds us that solving the problem (of biased access and equity to good work) necessitates identifying injustices and then addressing those by redistributing resources to marginalized groups (Goffman, 2009; Herek et al., 2015; Mestry, 2014; Rimke, 2016). In WIL, such resources could mean specific jobs, spots in WIL programs dedicated to those with certain EDG status(es), or additional support as required. For example, at the institute where this study was conducted, the team that manages co-op hired staff whose roles are to critique issues of access and equity and to educate WIL stakeholders about how they can work together to create more inclusive programming. This example demonstrates one way in which a WIL program can take social justice seriously.

Structural Barriers

This study also found that students from EDGs face various structural barriers during their co-op programs. Some such barriers were unique to students from a given EDG. For example, some international students perceived that they were excluded from certain jobs because of their international status. In fact, they were excluded based on that status. Government funding often excludes certain kinds of students such as international students but also students with higher incomes, and these arrangements are created with great care. This frustrated participants as they reflected on their tuition expenses. Of course, this issue is well-known to WIL programs and there is ongoing communication between students and practitioners to enhance mutual understanding. This example highlights that EDGs are not homogenous. Certain issues are indeed unique to students from one EDG and may not be perceived as barriers by students from another EDG. It also demonstrates that there is a fine line between perceived barriers and legitimate program features. Such features may be frustrating to students but are unlikely to change. What matters is that WIL programs create better mechanisms for communicating their program requirements and features while listening to students' concerns.

Further, there were structural barriers that were common across EDGs. Perhaps the most common one was an information gap. Participants reported lacking information from employers and the university about how and where to obtain accommodations, job search and application processes, resources, support, and reporting harassment and discrimination. This issue has been mentioned in previous research (McAuliffe et al., 2012). Information gaps are substantial barriers to youth employment even when high-quality services are available. If students do not know about such services and how to access them, then such services fail to meet the needs of the clients for whom they were designed. Critically, information gaps resided in co-op programs and host organizations. Students perceived that co-op and academic advisors, and supervisors and co-workers, would benefit from training on accommodation policies related to recruitment and management. Previous research (Cukier et al., 2018; Gair et al., 2015) suggests that staff and employers feel underprepared to offer such accommodation and are open to receiving training about it. This represents a tremendous opportunity for WIL educators and other allies to educate key WIL stakeholders about accommodations.

Some participants described remote work as a barrier and others described in-person work as a barrier. Some students with disabilities and those who were 2SLGBTQ+ preferred remote work because that modality was more accommodating to their needs. The flexibility offered by remote work may be congruent with the needs of select EDGs, especially students with disabilities (Gatto et al., 2021).

Conversely, some participants mentioned that remote work was a barrier to the development of meaningful social relationships at work. They shared that their EDG status already complicated such relationships, and that remote work worsened that. This has been identified as a barrier in previous research (Itano-Boase et al., 2021). Thus, the present research does not suggest remote work is better than in-person work for students from EDGs. Rather, future research is needed to enhance the WIL community's understanding of students' and employers' preferences for remote work.

CONCLUSION

In summary, this study advances the WIL literature in two important ways. First, it helps to amplify students' experiences of barriers in WIL through a social justice lens and rich qualitative data. Previous research focused mostly on other WIL stakeholders' experiences of barriers or relied on quantitative data that reduced students' experiences to numbers. The researchers hope that the quotes provided here create a deeper appreciation of barriers that still exist in WIL programs. The intention remains to inspire WIL stakeholders to take action against such barriers so that they can improve access and equity in WIL. Relatedly, the study demonstrates the usefulness of a social justice lens in the WIL research. Aside from a few shining examples (Groh et al., 2011; Hill et al., 2022; Redman & Clark, 2013), social justice research has been absent in the WIL literature. Future social justice research can help address injustices across educational systems and dismantle institutions that perpetuate such injustices.

Second, this study provides a fuller picture of the kinds of barriers within and across EDGs. Non-structural and structural barriers were evident. This distinction is novel and goes beyond general discussions of barriers in previous WIL research (Arthur & Guy, 2020; Gatto et al., 2021). Some instances of barriers were unique to certain EDGs, which is consistent with the research that focuses on such EDGs in WIL settings (e.g., Gatto et al., 2021; Mallozzi & Drewery, 2019). Other barriers were similar across EDGs. Thus, the present research demonstrated the usefulness of the EDG concept within the WIL literature. Only recently (Jackson et al., 2023) have WIL researchers considered notions of access and equity across EDGs. Other areas of education research (A. Khan et al., 2021; Milaney et al., 2022) have already shown that studying EDGs helps to reveal broad patterns of social stigma and discrimination. Those patterns are missed when the focus of the study is on certain groups. The very term equity-deserving suggests some common experience of marginalization that, while nuanced within groups, shares the same deserved response: social justice. This paper calls on WIL researchers and practitioners to consider barriers within and across EDGs so that they might develop meaningful strategies for addressing barriers in WIL programs.

Finally, the focus of this paper was on identifying barriers, not the impact of those barriers on WIL outcomes. Participants were asked to describe how the barriers that they experienced affected what they learned from their co-op work term, but that information is beyond the scope of this paper. In general, participants said that barriers limited the success of their work experiences. Future research will explore relationships between barriers and WIL outcomes in more depth. As well, because the study focused on students within WIL and excluded those who were not able to participate in WIL, future research should study this latter group to reveal even more dynamics of barriers and their impacts within WIL.

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