Implications of remote work for co-operative education students' workplace friendships

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Workplace friendships have been linked to important employment outcomes. With the rise in remote work-integrated learning (WIL) experiences, there is concern about the implications of work mode for students' workplace relationships. Using a survey of co-operative education students, this study explored differences in the development of workplace friendships between work modes and the consequences of those friendships. Results suggest that students are more likely to develop friendships when they work in-person rather than remotely. Informal socialization occurred less in remote work, which partially explained why remote workers reported fewer friendships. Workplace friendships with organization members—but not fellow students—were positively associated with job satisfaction, career development, organizational commitment, and conversion intention. These findings indicate that remote work has implications for friendship development and the quality of a WIL experience. WIL stakeholders offering remote work should consider informal socialization opportunities to strengthen workplace friendships and improve the quality of WIL experiences.

Keywords: Workplace friendships, remote work, co-op, survey

Historically, friendships between work-integrated learning (WIL) students and others at work were situated in shared physical spaces such as offices and labs. There, students often developed close interpersonal connections that could influence students' learning, networking, and other aspects of career development. However, the recent shift toward remote work has caused concern about the development of students' relationships at work and their contributions to WIL outcomes (Bowen, 2020; Pretti et al., 2020). It is increasingly common for WIL students to complete work terms in remote or hybrid work modes, with work interactions largely limited to email and video communication. A long history of research on remote work (e.g., Sias et al., 2012) suggests that such limitations may have important implications for WIL students' relationships with others at work and, in turn, the success of WIL experiences.

To address such concerns, this study explored the implications of remote work for co-operative education (co-op) students' workplace friendships. Co-op is a type of WIL in which students complete a series of paid work terms alternating with terms of academic study (Fannon, 2023). Co-op students are full-time employees who spend a considerable amount of time with their organizations, so the development of workplace friendships is possible. Workplace friendships are "nonexclusive workplace relations that involve mutual trust, commitment, reciprocal liking and shared interests or values" (Berman et al., 2002, p. 218). Workplace friendships were of interest because they are a kind of relationship at work that can influence desirable outcomes of WIL such as students' sense of belonging (Fleming, 2015). Using a cross-sectional survey of co-op students' work experiences, the study focuses on three key issues. First, it explores with whom such friendship might emerge (organizational members and fellow students). Second, it explores how those relationships emerge across work modes (e.g., in-person, hybrid, entirely remote). Third, it explores how students' workplace friendships relate

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to the success of WIL experiences. The study builds on limited previous research about WIL students' workplace friendships (Atkinson et al., 2005; Fleming, 2015; Jones, 2007; Smith-Ruig, 2014) and adds to the growing literature about remote work, social relationships, and quality WIL.

LITERATURE REVIEW

Two Kinds of Workplace Friendships in Work-Integrated Learning

Previous research on workplace friendships in WIL suggests that students might develop such friendships with organizational members and fellow students. An organizational member is anyone who works within a host organization, such as a supervisor or colleague. In one study (Jones, 2007), interviews with co-op students revealed that workplace friendships may develop between students and their supervisors. For some participants, the student-supervisor relationship transcended traditional roles. It became a friendship characterized by trust, intimacy, and personal connection. Similarly, Fleming (2015) found that workplace friendships emerged between WIL students, their supervisors, and their colleagues. Thus, for at least some students, relationships with organizational members can develop into voluntary, intimate, and personal connections. It seems that, despite joining a host organization for a limited time, WIL students may develop friendships with organizational members.

Workplace friendships may emerge between WIL students, too. Many WIL students work with other WIL students. When they do, they seem to interact in ways that can result in workplace friendships. For instance, some WIL students may eat lunch together which creates space for socialization and bonding (Harris et al., 2010) and, ultimately, the development of friendships. In their qualitative inquiry, Bone et al. (2019) interviewed WIL students working in an early childhood education setting. Some of those students worked alongside each other. Among those who did, workplace friendships were common. More than that, participants reported that their workplace friendships with each other helped them to navigate challenges at work together. Collectively, the literature suggests that workplace friendships are common in WIL settings and may involve both organizational members and fellow students. One of the goals of the present study is to measure these relationships and determine whether one is more common than the other.

Remote Work and Workplace Friendships

For decades, most WIL experiences were in-person. Students were in physical workplaces managed by hosts. Now, some WIL students work remotely some or all the time. The WIL literature suggests that such remote work may limit the development of social relationships. For instance, Bowen (2020) observed that the forced shift to remote WIL experiences during the COVID-19 pandemic stunted some students' development. Specifically, Bowen claimed that this was due in part to a reduction in meaningful social interactions that would typically contribute to students' development. Similarly, interviews with co-op students during the pandemic (Pretti et al., 2020) suggested that opportunities to develop relationships at work were limited for students who worked remotely over the past several years.

These concerns are echoed in the broader organizational literature about workplace friendships (Sias et al., 2012). That literature suggests that the way people work together in person differs from the way they work together remotely, and this may lead to differences in workplace friendships between work modes. Three differences seem especially prominent. First, there seem fewer opportunities for informal socialization in remote work. Whereas people who work together in person often connect for

a chat, colleagues do not typically bump into each other in a virtual space. Connecting with others in an informal way, such as talking about weekend plans or favorite television shows, humanizes coworkers and contributes to friendships (Sias & Cahill, 1998). If remote workers do not socialize as often, it follows that they may report fewer workplace friendships.

Second, remote work may affect how tasks are shared. When physically together, colleagues naturally collaborate. When in a meeting room, for instance, senior and junior workers alike may share ideas and develop solutions, together. By contrast, when individuals are dispersed, they tend to work alone and asynchronously. This may affect the development of workplace friendships because working on shared tasks is associated with feelings of friendship (Sias & Cahill, 1998). Working on shared tasks may help people celebrate shared triumphs and lament shared losses, much like how a sports team bonds over a season. Greater segregation of work may mean less chance that WIL students will bond with their colleagues. Third, and related to the previous point, remote workers may have less opportunity to notice similarities to others. When people work together, especially over time, they often develop an understanding of how they are alike. This is fundamental to workplace friendships (Morrison & Cooper-Thomas, 2016). Yet, if students working remotely interact less often with others they may miss similarities to others, and this could limit the development of workplace friendships.

Workplace Friendships and Successful WIL Experiences

Successful WIL experiences are those in which students and employers experience certain benefits. For students, such benefits usually involve job satisfaction and a sense of development. Workplace friendships may contribute to both. Atkinson et al. (2005) observed that the "best thing students gained from their co-operative education year was the friendships in the workplace" (p. 43). Indeed, workplace friendships provide social resources such as support and affection that enhance a sense of fulfillment at work (Dutton et al., 2010; Morrison & Cooper-Thomas, 2016). This may translate to a sense of job satisfaction (Nielsen et al., 2000). Qualitative research with WIL students (Bone et al., 2019; Jones, 2007) suggests that students' feelings of friendship at work are deeply intertwined with their general positive attitudes about their jobs.

Further, workplace friendships may contribute to perceptions of growth and development. Morrison's (2009) research on working-aged adults suggested that workplace friendships contribute to a sense of career development. The stronger workers' workplace friendships, the greater their sense of career progression. In a study with WIL students, Bowen (2020) commented that reductions in meaningful social interaction within work-integrated learning experiences during the COVID-19 pandemic negatively impacted students' career development. This may suggest that workplace friendships, as a form of meaningful social interaction, contribute to WIL students' career development. Further, Bowen's (2020) study hints at the interconnections between remote work, workplace friendships, and outcomes of WIL experiences.

Employers are key stakeholders in WIL experiences, too, and success depends on whether they benefit. While some employers are concerned with the short-term impact of students on the organization, many now seem especially concerned with developing relationships with students to bolster their talent pipelines. Students' organizational commitment is central to that end. Organizational commitment is a psychological bond between an individual and their organization, often characterized by a strong liking for or emotional attachment to an organization (Meyer & Allen, 1991). Stronger organizational commitment suggests that WIL students will be more likely to work for their employers in the future (Drewery et al., 2019). In WIL settings, workplace friendships seem to contribute to a sense of

connection between student and their organization (Drewery & Knapp, 2022; Fleming, 2015). Thus, how students develop friendships at work may influence their longer-term relationships with their employers.

PRESENT STUDY

The primary purpose of this study was to explore differences in WIL students' workplace friendships between work modes. Particular attention was paid to selected development factors that may explain such differences. The secondary purpose of the study was to explore the relationships between WIL students' workplace friendships and selected WIL experience outcomes. The study is particularly novel because it distinguishes between two kinds of workplace friendships, with organizational members and fellow students. Co-operative education served as a context for the study. In that context, the following research questions guided the study:

Research question 1: how do co-op students' workplace friendships (with fellow students and organization members) differ across work modes?
Research question 2: how are co-op students' workplace friendships associated with selected outcomes of their WIL experiences?

METHOD

Participants and Procedure

Following institutional ethics clearance (Project number 44132), all undergraduate co-op students from the University of Waterloo who were on a work term were invited through email to participate in an online survey in March 2022. Of the 8960 students invited to take part, 977 provided consent to participate and completed the online survey, providing an 11% response rate. This is an underestimate of the true interest in the study as we had to prematurely close the survey due to overwhelming interest and financial constraints. The survey contained questions about students' characteristics, work modes, workplace friendships, and selected outcomes of students' work experiences. Most participants completed the study in 10 to 15 minutes. They received a gift card valued at CAD$5.00 in appreciation for their time. Table 1 illustrates participant characteristics. Students were sampled from all industries, but most of them were employed in one of four industries, including professional, scientific and technical services ($n = 211$), finance and insurance ($n = 176$), health care and social assistance ($n = 109$), and educational services ($n = 90$).

TABLE 1: Participant characteristics.

Characteristic	Category	n	%
Gender	Woman	617	63.2
	Man	331	33.9
	Other	27	2.8
Work Mode	In-Person	243	24.9
	Remote	413	42.3
	Hybrid	320	32.7
Size of Organization	Micro (1 to 9 people)	81	8.3
	Small (10 to 99 people)	223	22.8
	Medium (100 to 499 people)	168	17.2
	Large (500 people or more)	502	51.4

Note: N = 977. Participants were on average 20.25 years old (SD = 1.27).

Measures

Work mode

Work mode was measured through a self-report. Participants were asked to respond to the question "which of the following best describes your work mode this term?" Three options were presented, and participants could select one. The options were as follows: in-person (e.g., in a shared physical space with colleagues such as an office or a work site), remote (e.g., in a private space such as your own dwelling), and hybrid (e.g., sometimes in a shared physical space with colleagues and sometimes in your own private space).

Other developmental factors

Developmental factors were informed by Sias et al.'s (2012) study exploring workplace friendships in electronically connected organizations. Three factors were selected and measured: shared values and interests, shared tasks and/or projects, and informal socialization. Each item was presented twice, once in reference to workplace friendships with organization members and once for workplace friendships with fellow students. The items were preceded by the statement "To what extent do you and ___ " in which the blank was filled with either "other co-op students" or "members of your host organization." Shared values and interests were measured with the item "share similar values and interests." Shared tasks and/or projects was measured with the item "share tasks and/or work together on a project or projects." Lastly, informal socialization was measured with the item "socialize informally such as through talking over a lunch break or virtual chat, or hanging out outside of work hours." Participants were asked to select from one of six response options where 1 = not at all, 2 = very little, 3 = somewhat, 4 = quite a bit, 5 = a great deal, and an additional option of selecting 'N/A' was provided.

Workplace friendships

Workplace friendships were measured with Nielsen et al.'s (2000) six-item workplace friendship prevalence instrument. The instrument was administered twice, once for workplace friendships with organization members and once for workplace friendships with fellow students. Participants received clear instructions so that these two kinds of workplace friendships were distinguished from each other. An example item is "I have formed strong friendships with [members of the organization/other co-op students] at work" (Nielsen et al., 2000, p. 635). Participants were asked to indicate their agreement with each statement using a five-point scale where 1 = strongly disagree and 5 = strongly agree. The mean of the responses was used as the measure of both kinds of workplace friendships.

Job satisfaction

Job satisfaction was measured with a single item, "How satisfied are you with your job in general?" (Scarpello & Campbell, 1983, p. 584). Participants were asked to select from one of five response options where 1 = not at all, 2 = slightly, 3 = somewhat, 4 = very, and 5 = extremely.

Career development

Career development was measured using Parks et al.'s (2008) six-item career development instrument, a component of their PLACE instrument. Participants were asked to consider the extent to which their career development outcomes changed during their work term. Thus, the measure represents a change in career development, which we think is a clear indicator of the quality of a work-integrated learning experience. Each item reflects an aspect of career development, including "practical work experience related to my major" and "ability to view my career expectations realistically" (Parks et. al., 2008, p. 46). Responses to each item were provided on seven-point scales where 1 = decreased significantly over

the course of the current work term, 2 = decreased moderately, 3 = decreased slightly, 4 = did not change, 5 = increased slightly, 6 = increased moderately, and 7 = increased significantly.

Organizational commitment

Organizational commitment was measured using Klein et al.'s (2014) four-item commitment instrument. Organizational commitment was first defined for participants, who were then asked to respond to four items. An example item is "How committed were you to your organization?" Responses were provided on five points scales where 1 = not at all, 2 = slightly, 3 = moderately, 4 = quite a bit, and 5 =extremely.

Conversion intentions

Conversion intentions were used as further evidence of the strength of students' relationships with host organizations. It was measured using a two-item scale presented by Drewery et al. (2019). The items were: "How likely would you be to return to this organization?" and "How likely would you be to accept a full-time job at this company past graduation?" (p. 38). Responses to each item were provided on five-point scales where 1 = not at all likely, and 5 = very likely.

Demographic and situational variables

Participants were asked to provide their age in years and their gender from a list containing 10 options that are familiar to students at this university. Further, participants were asked to report on several situational variables. They were asked to provide information about the number of fellow students with whom they worked. This was relevant to the analyses because we assumed all participants worked with organizational members but were unsure of whether fellow students were present at work. Team size and organization size, both measured as the number of employees, were collected, as was industry. All were used to characterize the sample. Table 2 shows the descriptive statistics for measures in the study.

TABLE 2: Selected descriptive statistics for key measures.

| Variables	n	M	SD	range	α
With fellow students					
Workplace friendship prevalence	643	3.31	1.05	1-5	.89
Shared values	624	3.85	.92	1-5	—
Shared tasks	628	3.12	1.34	1-5	—
Informal socialization	632	3.59	1.19	1-5	—
With organizational members					
Workplace friendship prevalence	977	2.94	.97	1-5	.87
Shared values	963	3.71	.85	1-5	—
Shared tasks	973	3.77	1.00	1-5	—
Informal socialization	967	3.03	1.197	1-5	—
Outcome variables					
Job satisfaction	972	3.72	.97	1-5	—
Career development	977	3.71	.81	1-5	.88
Affective organizational commitment	976	3.44	.93	1-5	.94
Conversion intentions	976	3.33	1.22	1-5	.86

Analytical Approach

Research question 1 was addressed with three sets of analyses. First, one-way ANOVAs were used to explore differences in the development of participants' workplace friendships between work modes. Second, for participants who worked with both organization members and fellow students, paired samples t-tests were used to explore differences in these kinds of workplace friendships. Third, mediation analyses were used to explore differences in developmental factors between work modes and whether such factors might account for differences in workplace friendships between work modes. Research question 2 was addressed through linear regression analyses in which the selected outcome variables were regressed on workplace friendships and other variables.

RESULTS

Work Mode and Workplace Friendships

Results of one sample t-tests showed that workplace friendships with fellow students, $t(642) = 80.19$, $p < .001$, and organizational members, $t(976) = 94.69$, $p < .001$, were significantly greater than the lowest possible score on these measures. This indicates that both kinds of workplace friendships indeed emerged for these participants. Results of paired samples t-tests showed that workplace friendships with students were significantly greater than workplace friendships with organization members, $t(642) = 6.58$, $p < .001$. Results of a one-way ANOVA test showed that there was a significant difference in workplace friendships with fellow students between work modes, $F(2,639) = 12.85$, $p < .001$. A Bonferroni post-hoc test showed that workplace friendships with students was significantly greater for those who worked entirely in-person ($M = 3.53$, $SD = 1.09$) than for those who worked entirely remote ($M = 3.07$, $SD = 1.00$), $p < .001$. Also, workplace friendships with students were significantly greater for those who worked hybrid ($M = 3.45$, $SD = 1.01$) than for those who worked entirely remotely, $p < .001$. Workplace friendships with students did not differ between those who worked entirely in-person and those who worked hybrid, $p = 1.00$. These results are illustrated in Figure 1.

FIGURE 1: Friendship prevalence with organization members and fellow students across work mode.
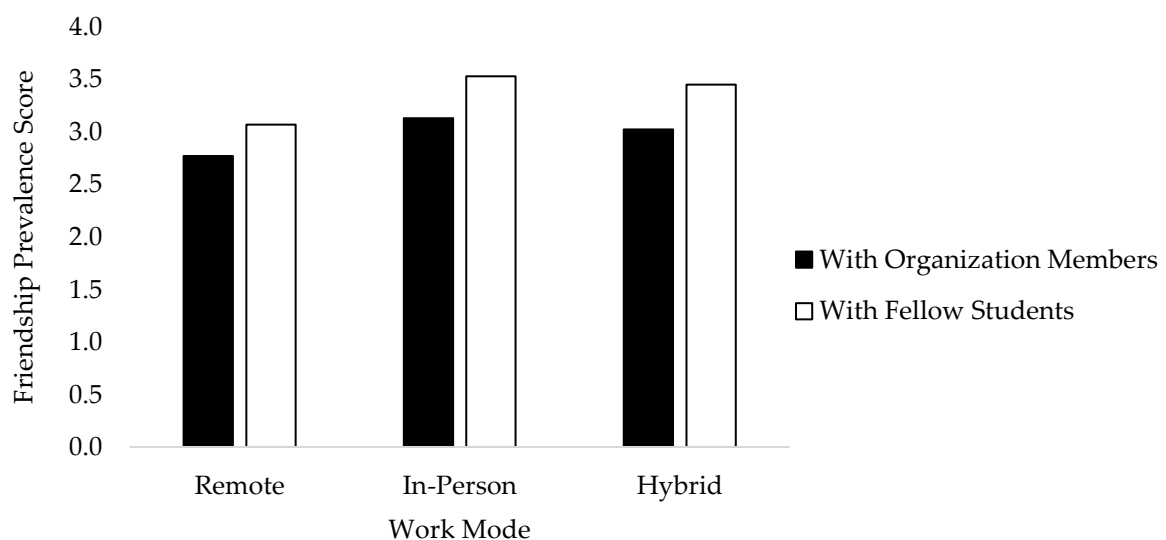
The results for workplace friendships with organization members were similar (see Figure 1). There was a significant difference in workplace friendships with organization members between work modes, $F(2,973) = 12.35$, $p < .001$. A Bonferroni post-hoc test showed that workplace friendships with organization members was significantly greater for those who worked entirely in-person ($M = 3.13$, $SD = .99$) than for those who worked entirely remote ($M = 2.77$, $SD = .93$), $p < .001$). Also, workplace friendships with organization members were significantly greater for those who worked hybrid ($M = 3.02$, $SD = .98$) than for those who worked entirely remotely, $p < .001$. Workplace friendships with students did not differ between those who worked entirely in-person and those who worked hybrid, $p = .57$. These results suggest that working in-person with others sometimes (versus not at all) was associated with the development of students' workplace friendships.

The Role of Developmental Factors

Mediation analyses with Hayes' (2017) PROCESS macro for SPSS were used to explore how these three factors might mediate, or help explain, the differences in workplace friendships between work modes. Work mode was coded such that working entirely remotely = 0 and working in person at least sometimes = 1. This code was appropriate given earlier results that suggested workplace friendships were similar between those who worked some of the time in-person and those who worked all the time in person. Shared values, shared tasks, and informal socialization were considered mediators. Workplace friendships, with students in one model and with organization members in another model, were the outcome variables. Results are illustrated in the figures below.

Working in person was positively associated with workplace friendships with students (see Figure 2, bottom arrow). It was not associated with shared values with students, nor was it associated with shared tasks with students, but it was positively associated with informal socialization with students. Shared values with students, shared tasks with students, and informal socialization with students were positively associated with workplace friendships with students. Indirect associations suggest that neither shared values with students nor shared tasks with students mediated the relationship between work mode and workplace friendships with students. Conversely, informal socialization with students partially mediated the relationship between work mode and workplace friendships with students (see Figure 2). Thus, it seemed that informal socialization seemed to explain why working in person was associated with greater workplace friendships with students. Those who worked in-person had more informal socialization with students and this in turn led to more workplace friendships with students.

FIGURE 2: Illustration of effects in a process model of work mode, antecedents of workplace friendships, and workplace friendships with fellow students.
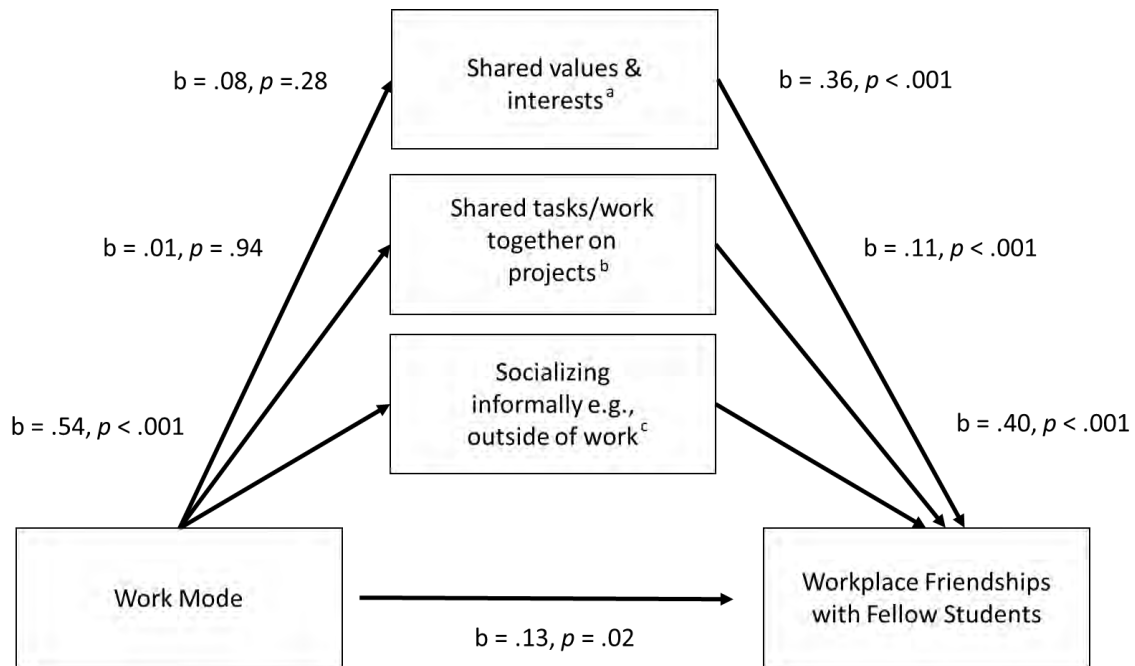
Note. This figure demonstrates the results of the mediation analysis. Arrows associated with significant *p* values indicate a significant relationship between the variables. The significance of the mediation effects are illustrated in the notes below.
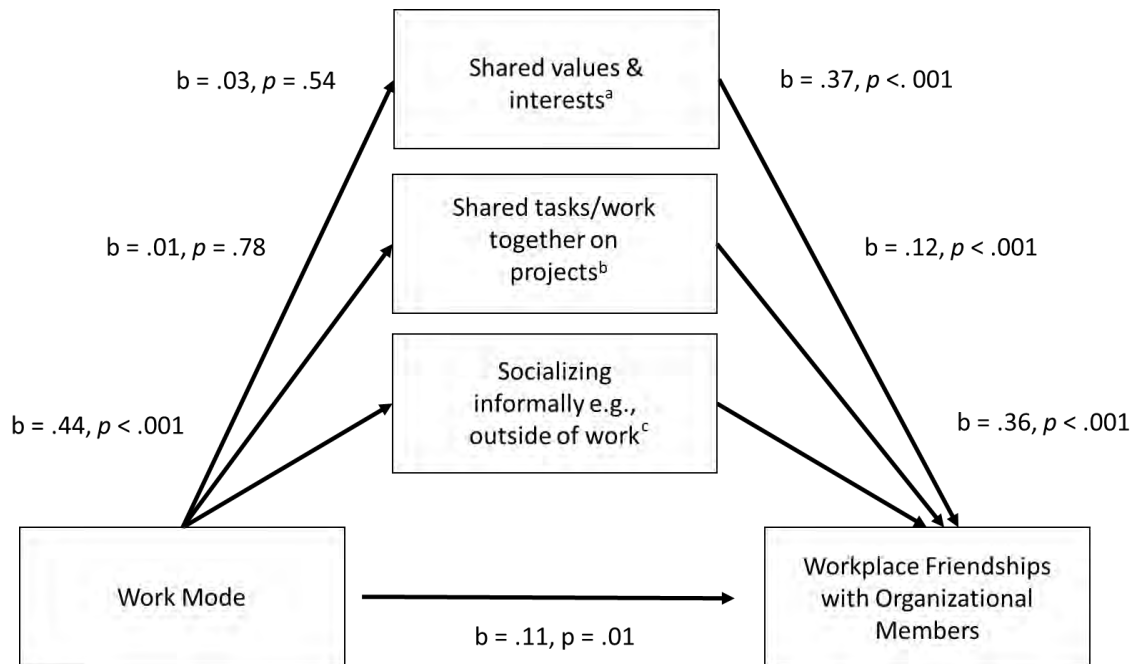
[a] The indirect effect (IE = 30) of work mode via shared values is NOT statistically significant: 95% confidence interval (CI) = (-.02, .09).

[b] The indirect effect (IE = .001) of work mode via shared tasks is NOT statistically significant: 95% CI = (-.03, .03).

[c] The indirect effect (IE = .22) of work mode via socializing informally IS statistically significant: 95% CI = (.14, .30).

Working in person was positively associated with workplace friendships with organization members (Figure 3, bottom arrow). It was not associated with shared values with organization members, nor was it associated with shared tasks with organization members, but it was positively associated with informal socialization with organization members. Shared values with organization members, shared tasks with organization members, and informal socialization with organization members were positively associated with workplace friendships with organization members (see Figure 3). Indirect associations suggest that neither shared values with students nor shared tasks with students mediated the relationship between work mode and workplace friendships with students. Conversely, informal socialization with students partially mediated the relationship between work mode and workplace friendships with students. Thus, it seemed that informal socialization seemed to explain why working in person was associated with greater workplace friendships with organization members. Those who worked in person had more informal socialization with organization members and this in turn led to more workplace friendships with organization members.

FIGURE 3: Illustration of effects in a process model of work mode, antecedents of workplace friendships, and workplace friendships with organizational members.

Note. This figure demonstrates the results of the mediation analysis. Arrows associated with significant *p* values indicate a significant relationship between the variables. The significance of the mediation effects are illustrated in the notes below.

[a] The indirect effect (IE = .01) of work mode via shared values is NOT statistically significant: 95% confidence interval (CI) = (-.03, .05).

[b] The indirect effect (IE = .002) of work mode via shared tasks is NOT statistically significant: 95% CI = (-.01, .01).

[c] The indirect effect (IE = .16) of work mode via socializing informally IS statistically significant: 95% CI = (.10, .22).

Workplace Friendships and Selected Outcomes

Each of the four outcome variables (job satisfaction, career development, organizational commitment, and conversion intention) was regressed on the two workplace friendships variables. Participants' gender, organization size, and work mode were entered as covariates. Work mode was recoded into two dummy variables (remote and hybrid) because it was multi-categorical. Those variables represent the differences between remote and in-person and hybrid and in-person, respectively. Similarly, gender was recoded into two dummy variables (man and other gender) due to its multi-categorical nature. These variables represent the differences between men and women and other gender categories and women, respectively. Participants who responded to multiple gender categories were allocated to other gender. The results are summarized in Table 3 and Table 4.

TABLE 3: Results of regression analyses where job satisfaction and career development are outcomes.

Variables	Job Satisfaction				Career Development			
	b	SE	t	p	b	SE	t	p
Workplace Friendships								
With Students	-.039	.039	-1.001	.317	.002	.035	.063	.950
With Organization Members	.478	.042	11.477	<.001	.302	.037	8.108	<.001
Control Variables								
Man	.080	.074	1.079	.281	.101	.066	1.536	.125
Other Gender	-.219	.207	-1.059	.290	-.029	.186	-.157	.875
Size of Organization	.024	.034	.698	.485	.074	.031	2.421	.016
Remote	.348	.089	3.904	<.001	.257	.080	3.224	.001
Hybrid	.243	.092	2.636	.009	.281	.082	3.407	<.001

The regression analyses for the student related outcome measures showed that the overall models for job satisfaction ($F(7,628)$, $p < .001$, adjusted $R^2 = .22$) and career development ($F(7,633)$, $p < .001$, adjusted $R^2 = .15$) were significant (see Table 3). Although workplace friendships with fellow students were not found to significantly predict job satisfaction ($p = .32$) or career development ($p = .95$), workplace friendships with organizational members were found to be significant predictors of both job satisfaction ($p < .001$) and career development ($p < .001$). Additionally, students who worked remotely or hybrid reported higher job satisfaction and career development than those who worked in person (all $p < .01$). Neither gender nor organization size significantly predicted job satisfaction. While gender did not significantly predict career development, organizational size was a significant predictor ($p = .02$), with those in larger organizations reporting higher levels of career development.

Regarding the outcome measures relevant to organizational stakeholders, the overall model for affective organizational commitment ($F(7,632)$, $p < .001$, adjusted $R^2 = .23$) and conversion intentions ($F(7,632)$, $p < .001$, adjusted $R^2 = .19$) were significant. Consistent with the findings for the other outcome variables, workplace friendships with fellow students did not significantly predict affective organizational commitment ($p = .35$) or conversion intentions ($p = .74$). Nonetheless, participants who had workplace friendships with organizational members reported higher levels of affective organizational commitment ($p < .001$) and reduced turnover intentions ($p < .001$). Students who worked remotely or hybrid also reported higher affective organizational commitment and lower turnover intentions than those who worked in person (all $p \leq .01$). Gender did not significantly predict affective organizational commitment or turnover intentions. Organizational size also did not predict organizational commitment, but it was a significant predictor of turnover intentions ($p < .001$), with those in larger organizations reporting a higher likelihood of returning to the organization in the future.

TABLE 4: Results of regression analyses where affective organizational commitment and conversion intentions are outcomes.

	Affective Organizational Commitment				Conversion Intentions			
	b	SE	t	p	b	SE	t	p
Workplace Friendships								
With Students	-.035	.037	-.936	.349	.017	.051	.328	.743
With Organization Members	.476	.040	11.961	<.001	.432	.054	7.930	<.001
Control Variables								
Man	-.033	.070	-.475	.635	-.152	.097	-1.576	.115
Other Gender	-.023	.199	-.117	.907	.092	.272	.337	.736
Size of Organization	.007	.033	.216	.829	.283	.045	6.305	<.001
Remote	.370	.085	4.347	<.001	.444	.117	3.803	<.001
Hybrid	.258	.088	2.931	.003	.309	.117	2.563	.011

DISCUSSION

We found that students developed workplace friendships with fellow students and organization members. Students made friends with each other more than they made friends with hosts, but both kinds of friendships were observed. This adds clarity to the WIL literature (e.g., Fleming, 2015) regarding with whom students might develop friends at work. We now know that workplace friendships are not limited to fellow students. Rather, students sometimes develop friends with people in their host organization. As we discuss later, such relationships have implications for the success of WIL experiences.

Work Mode and the Development of Workplace Friendships

One of our main interests in the study was to explore differences in students' workplace friendships between work modes. This is reflected in research question 1: how do co-op students' workplace friendships (with fellow students and organization members) differ across work modes? Consistent with previous workplace friendship research, we found that co-op students did develop friendships while working remotely (Gates et al., 2023). However, they were less likely to develop both kinds of workplace friendships when compared to students who worked in person at least sometimes. It seemed that working in person contributed to feelings of friendship with students and hosts. This is consistent with the workplace friendship literature which suggests that remote work often complicates the development of workplace friendships (Sias et al., 2012). Notably, there was no difference in workplace friendships between those who worked in person all the time and those who worked in person sometimes (i.e., hybrid). Thus, WIL stakeholders seeking to maximize students' feelings of friendship may consider offering at least some in-person work. Offering a fully in-person arrangement does not necessarily benefit workplace friendships beyond a hybrid arrangement.

We wanted to know whether there were reasons that might explain such results. Based on a review of the literature, we explored the role of three mechanisms: shared values and interests, shared tasks, and informal socialization. The results for both kinds of workplace friendships were the same. All three mechanisms contributed to workplace friendships. That is, the more students shared values and interests with their colleagues, worked together with those colleagues on shared tasks, and socialized with them informally, the more those colleagues felt like friends. This is consistent with the previous literature on the development of workplace friendships (Sias et al., 2012).

Still, these findings are novel and practically important for WIL. We now know that the conditions for developing workplace friendships with fellow students are the same as the conditions for developing workplace friendships with organization members. Both kinds of friendships emerge when students: (1) see colleagues as like themselves, (2) work on tasks with those colleagues, and (3) can connect with colleagues informally beyond the scope of their work roles. The difference is that students seem to connect less often with like-minded organization members. Given the importance of workplace friendships with organization members, as discussed later, this has implications for practice. Managers can offer opportunities for students to 'get to know' organization members and may even design groups or teams based on knowledge of students' values and interests. Then, offering opportunities for people to socialize further strengthens friendships between students and others at work.

Critically, it was this last mechanism, informal socialization, that seemed to account for differences in the development of workplace friendships between work modes. Those who worked in person at least sometimes reported more informal socialization with their colleagues than those who worked remotely all the time. In turn, this difference in informal socialization accounted for differences in workplace friendships with fellow students and organization members. These findings may be obvious to readers who once worked in person and now work remotely. Opportunities for socializing with colleagues online seem prevalent or at least less obvious than opportunities for such socialization in person. Whereas people used to eat lunch together, stop by each other's cubicles or offices, or perhaps hang out together after work, now they interact in tightly scheduled and super-focused meetings. We think that this observation accounts for the workplace friendship 'penalty' reported by those who did not work in person with their colleagues.

These findings seem to validate some of the concerns expressed in the WIL literature about remote work. There was concern that remote work might complicate students' development (Bowen, 2020; Pretti et al., 2020). Indeed, those students who worked remotely all the time, who did not work with colleagues in person at all, reported lower workplace friendships. Such friendships could be conceptualized as a form of development because they represent an important part of social relationships at work. We know that social relationships are crucial to WIL because they provide learning opportunities. This is reflected in some of the theories on which WIL practice is founded, including social learning theory (Bandura, 1977) and situated learning theory (Lave & Wenger, 1991). If workplace friendships provide opportunities for social learning and such friendships are limited by remote work, then remote work may complicate opportunities for learning from others at work.

However, these findings also provide a unique opportunity for intervention. If informal socialization is important to workplace friendships and occurs less in remote work than in-person work, perhaps encouraging informal socialization in remote work can increase workplace friendships and improve the quality of a WIL experience. Of course, this proposition is open to future research and would make for a practically important study in the WIL literature. If the proposition holds, then WIL stakeholders—especially managers at work—might consider ways to encourage informal socialization online.

The Importance of Workplace Friendships

The second research question that guided this study asked: how are co-op students' workplace friendships associated with selected outcomes of their WIL experiences? The intention behind this question was to explore how workplace friendships with fellow students and organization members might contribute to positive WIL experiences and desirable relationships between students and their

host organizations. Across the four outcome variables that we measured, the results were consistent and intriguing. Workplace friendships with fellow students were not associated with any of the following: job satisfaction, sense of career development, affective organizational commitment, and conversion intentions. Conversely, workplace friendships with organization members were positively associated with all four outcomes.

On the one hand, these results are consistent with the workplace friendship literature. We have known for some time that workplace friendships are an important part of a satisfying work experience (Nielsen et al., 2000). Friendships can offer access to tangible and emotional support, and these often make work a more pleasurable activity. As well, because people are representatives of organizations, friendships with people in the organization seem to strengthen the relationship between workers and their organizations (Nielsen et al., 2000). There is a mental association between working with friendships and a bond between the individual and the organization. In this sense, the findings presented here only extend previous research into the WIL context.

On the other hand, our findings provide unique insights into how workplace friendships contribute to the success of WIL experiences. The key insight may be that WIL stakeholders are prioritizing the wrong kind of workplace friendship. The kind of workplace friendship that was more common (with fellow students) was not associated with a better experience, and the kind of workplace friendship that was less common (with organization members) was associated with a better experience. On reflection, this has been clear in our own experiences working with students and, in the case of the second author, being a co-op student. Organizations often hire multiple students and encourage them to make friends with each other. Yet rarely is there effort to develop friendships between students and hosts. This becomes a missed opportunity when we consider that hosts offer insights about career development (see Rowe et al., 2012; Winchester-Seeto et al., 2016) that fellow students simply cannot and that workplace friendships are a container in which information and support are amplified (Sias et al., 2012). So, whereas stakeholders may be investing in the development of workplace friendships among students, they might instead consider ways in which students can become friends with members of a host organization. Our data suggest that providing opportunities for informal socialization is a useful place to start.

This research was cross-sectional, using self-report data from co-op students. The focus on this single type of WIL influences the ability to generalize our findings to other WIL types. It will be important for future research to explore the development and outcomes of workplace friendships in various forms of WIL. It is possible that the duration and intensity of the WIL experience will have an influence on workplace friendships. This study also focused exclusively on the student perspective. It will be important for future research to explore supervisor and organizational perspectives and attitudes towards workplace friendships. We know that organizational attitude plays an important role in whether friendships develop at work (Mao et al., 2009). Research has also shown that tensions may arise when friendships develop between employees of differing hierarchical status (Pillemer & Rothbard, 2019). This may lead organizations to discourage the development of such friendships. Research exploring the organizational perspective in more depth may provide insights into why co-op students are less likely to develop friendships with organization members and may offer suggestions for how to mitigate this in the future.

CONCLUSION

Bowen (2020) and Pretti et al. (2020) were correct to be concerned with the implications of remote work for student development. In this study, students who worked remotely reported lower workplace friendships than students who worked in person at least sometimes. Reduced informal socialization in remote work seemed to explain this. Such workplace friendships were associated with markers of a successful WIL experience, suggesting that we should care about where, how, and with whom students make friends at work. That is not to suggest that all students should be required to work in person. On the contrary, the challenge seems to be to identify opportunities for sharing values, sharing tasks, and socializing in an increasingly remote world. If WIL stakeholders can create opportunities for connection online, then perhaps much of what was lost from organic in person connections can be recovered in remote work.

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About the Journal

The International Journal of Work-Integrated Learning (IJWIL) publishes double-blind peer-reviewed original research and topical issues related to Work-Integrated Learning (WIL). IJWIL first published in 2000 under the name of Asia-Pacific Journal of Cooperative Education (APJCE).

In this Journal, WIL is defined as " *An educational approach involving three parties – the student, educational institution, and an external stakeholder – consisting of authentic work-focused experiences as an intentional component of the curriculum. Students learn through active engagement in purposeful work tasks, which enable the integration of theory with meaningful practice that is relevant to the students' discipline of study and/or professional development"* (Zegwaard et al., 2023, p. 38*). Examples of practice include off-campus workplace immersion activities such as work placements, internships, practicum, service learning, and cooperative education (co-op), and on-campus activities such as work-related projects/competitions, entrepreneurships, student-led enterprise, student consultancies, etc. WIL is related to, and overlaps with, the fields of experiential learning, work-based learning, and vocational education and training.

The Journal's aim is to enable specialists working in WIL to disseminate research findings and share knowledge to the benefit of institutions, students, WIL practitioners, curricular designers, and researchers. The Journal encourages quality research and explorative critical discussion that leads to the advancement of quality practices, development of further understanding of WIL, and promote further research.

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Types of Manuscripts Sought by the Journal

Types of manuscripts sought by IJWIL is of two forms: 1) *research publications* describing research into aspects of work-integrated learning and, 2) *topical discussion* articles that review relevant literature and provide critical explorative discussion around a topical issue. The journal will, on occasions, consider good practice submissions.

Research publications should contain; an introduction that describes relevant literature and sets the context of the inquiry. A detailed description and justification for the methodology employed. A description of the research findings - tabulated as appropriate, a discussion of the importance of the findings including their significance to current established literature, implications for practitioners and researchers, whilst remaining mindful of the limitations of the data, and a conclusion preferably including suggestions for further research.

Topical discussion articles should contain a clear statement of the topic or issue under discussion, reference to relevant literature, critical and scholarly discussion on the importance of the issues, critical insights to how to advance the issue further, and implications for other researchers and practitioners.

Good practice and program description papers. On occasions, the Journal seeks manuscripts describing a practice of WIL as an example of good practice, however, only if it presents a particularly unique or innovative practice or was situated in an unusual context. There must be a clear contribution of new knowledge to the established literature. Manuscripts describing what is essentially 'typical', 'common' or 'known' practices will be encouraged to rewrite the focus of the manuscript to a significant educational issue or will be encouraged to publish their work via another avenue that seeks such content.

By negotiation with the Editor-in-Chief, the Journal also accepts a small number of *Book Reviews* of relevant and recently published books.

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