How approaches to learning explain lifelong learners' successful work adjustment

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Using data collected from co-operative education students at two different times over a four-month long work term, we test and find support for the hypothesis that students' approaches to learning explain the relationship between their lifelong learning characteristics and work adjustment. Students' lifelong learning characteristics were positively associated with a deep approach to learning and negatively associated with a disorganized approach to learning (and unrelated to their rational approach to learning), and these in turn influenced work adjustment. We conclude that the development of lifelong learners contributes to students' school-to-work transitions in work-integrated learning programs. The development of lifelong learning characteristics may be an important part of preparing students for organizational entry.

Keywords: School-to-work transition, organizational socialization, co-operative education, mediation analysis

Most work-integrated learning (WIL) students transition into organizational settings in which work experiences occur. The success of their transitions is measured by the extent to which they master tasks and connect to others, often called work adjustment. Work adjustment supports students' job satisfaction and job performance (Bauer & Erdogan, 2011) which are of interest to students and employers alike. One line of research has explored the characteristics of students who report high work adjustment (e.g., Pennaforte, 2016; Rose, 2016). An emergent finding has been that students' lifelong learning characteristics are linked with their work adjustment (Drewery et al., 2017, 2020). This is intriguing because educators might affect such characteristics (Candy et al., 1994) and in turn support students' transitions to work.

However, how students' lifelong learning characteristics are linked to their work adjustment remains unclear. Drewery et al. (2017) claimed that lifelong learning characteristics influence work adjustment "because lifelong learning characteristics shape how students learn" (p. 303, emphasis added). Approaches to learning (Biggs, 1987) describe how students learn, which suggests that they may play a role in understanding lifelong learners' successful organizational entry. Drawing from this background, the goal of this study was to explore students' approaches to learning as a plausible explanation for the link between students' lifelong learning characteristics and work adjustment. A theoretical model was developed and tested using data collected through a short longitudinal survey during a four-month-long co-operative education (co-op) work term. Ultimately, the study builds on emerging theory about transferring competences into WIL experiences (Jackson et al., 2019) and preparing WIL students for successful organizational entry (Rowe & Winchester-Seeto, 2022).

The remainder of the paper is organized as follows. First, the paper presents a review of the literature relevant to lifelong learning, work adjustment, and approaches to learning. The review of the literature leads to a theoretical model (Figure 1). Then, the paper describes the method used to test the theoretical model. Results are then presented and discussed in relation to literature about preparing students for transitions into the workplace within WIL programs. Specifically, the discussion of results suggests

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that developing students' lifelong learning characteristics may be an important part of preparing students for organizational entry in WIL programs.

Lifelong Learning Characteristics and Work Adjustment

Lifelong learners are individuals who learn throughout their lives and across contexts (Candy et al., 1994). Such learners are characterized by a "mixture of experience, motivation, intelligences, and dispositions" (Deakin Crick et al., 2004, p. 247). Specifically, Knapper and Cropley (2000) suggested that five characteristics are most useful in describing lifelong learners: goal setting, application of knowledge and skills, self-direction and self-evaluation, information seeking, and adaptable learning strategies. That is, lifelong learners tend to set learning-oriented goals, apply their competencies across settings, pursue learning for its own sake and monitor how the learning process is going, seek new information from various sources, and adapt how they go about learning to situational demands.

For 50 years, since Faure et al.'s (1972) report on lifelong learning to the United Nations, educators have argued that developing lifelong learners is beneficial to individuals and societies. Researchers have found support for this argument. There is evidence that the development of lifelong learning characteristics has a positive impact on individuals' academic performance (Deakin Crick et al., 2004; Kirby et al., 2010; Wielkiewicz & Meuwissen, 2014) and success at work (Drewery et al., 2020; Hojat et al., 2006, 2009). Thus, it seems that helping individuals develop characteristics such as curiosity, critical reflection, and the transfer of knowledge across contexts aids in such individuals' success in various contexts.

This is relevant to the ongoing discussion about how best to prepare WIL students for successful WIL experiences. Learning how to join an organization is essential to students' success within virtually any WIL experience that involves an employer or community partner. However, such learning is not guaranteed. Rather, it requires preparation. Indeed, it is now widely accepted that preparing students for an experience is critical to the success of that experience (e.g., Rowe & Winchester-Seeto, 2022). Thus, the WIL community is interested in understanding factors relevant to preparing students to adjust to work. Some recent research suggests that developing students' lifelong learning characteristics may be part of such preparation. One study (Drewery et al., 2017) found that students' lifelong learning characteristics were associated with the extent to which those students learned how to perform their roles and the extent to which they socialized into an organizational context. Perhaps then, WIL programs prepare students for successful transitions to work when they develop students' lifelong learning characteristics.

Approaches to Learning at Work

While there seems to be an emerging link between students' lifelong learning characteristics and work adjustment, the explanation for that link is not yet clear. Approaches to learning is a concept that may provide such an explanation. Approaches to learning are sets of individuals' motivations for learning and strategies for learning (Biggs, 1987). They have been studied for decades as part of an effort to understand relationships between the way students learn and their learning outcomes (e.g., Biggs, 1987; Entwistle, 1991; Entwistle & Ramsden, 1983). Conceptual models of approaches to learning highlight two main approaches to learning: deep and surface. A deep approach to learning is intrinsically motivated and involves strategies such as proactive information seeking. It is self-directed and involves the learner taking control over their actions. A surface approach to learning is extrinsically motivated and involves strategies such as memorizing information—a strategy that results in limited understanding of content.

Kirby et al. (2003) explored approaches to learning at work. Their empirical research identified three approaches to learning at work: deep, rational, and disorganized. A deep approach to learning involves intrinsic motivations and involves a self-directed learning strategy in which learners take control of their learning. Thus, a deep approach to learning at work is conceptually like a deep approach to learning in academic settings. A rational approach to learning is characterized by methodical, orderly, and detail-oriented strategies that may be intrinsically or extrinsically motivated. A disorganized approach to learning is a reactionary response to challenges. It involves efforts to learn only the bare minimum required in one's role. This is relevant to WIL contexts because it suggests WIL students may adopt any of three approaches to learning as they venture into a WIL experience.

Much of the research on approaches to learning at work has focused on their situational antecedents (Kirby et al., 2003; Kyndt et al., 2011a, 2011b, 2013) and influence on work-based learning outcomes (Froehlich et al., 2014). It shows that situational factors, such as workload, shape approaches to learning. The more overwhelmed workers are in their roles, the less likely their deep approach to learning and the more likely their rational and disorganized approaches to learning. Such research also shows that support from the organization and supervisor can enhance the likelihood of a deep approach to learning and reduce reliance on rational and disorganized approaches to learning. Workers' deep approaches to learning can then enhance learning outcomes, and their other approaches to learning either have limited impact on learning outcomes or are less helpful.

A separate line of research in the education literature highlights a connection between individuals' personal characteristics and approaches to learning. For example, Evans et al. (2003) found that measures of need for cognition and a deep approach to learning were closely related to each other. Individuals' tendencies to think deeply about things were related to their learning. Other studies show that individuals' habitual use of approaches to learning influence subsequent approaches to learning (Baeten et al., 2010). This provides further support for the link between lifelong learning characteristics and approaches to learning. Such approaches to learning might then explain why developing WIL students into lifelong learners may help those students transition successfully into organizational settings.

Approaches to Learning at Work as Mediators

Self-directed learning theory provides a useful perspective through which we might examine relationships between students' lifelong learning characteristics, approaches to learning at work, and work adjustment. The theory suggests that individuals can manage their own learning processes, independent of external forces on such processes (Garrison, 1997). Further, it explains that some individuals have tendencies toward self-direction, based on levels of intrinsic motivation for learning, and that such tendencies have implications for learning processes and outcomes (Garrison, 1997; Pilling-Cormick & Garrison, 2007). Lifelong learners have been described as self-directed learners with strong tendencies for self-management and high intrinsic motivation (Candy et al., 1994; Deakin Crick et al., 2004). Thus, from the self-directed learning theory perspective, it follows that lifelong learning characteristics may be linked with learning outcomes during organizational entry (i.e., work adjustment) because they influence how students approach learning at work.

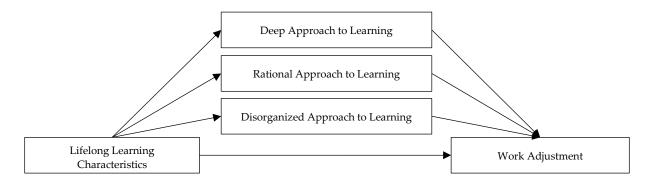
Kirby et al. (2010) found that scores on their measure of students' lifelong learning characteristics were positively associated with students' self-reports of a deep approach to learning and negatively related to self-reports of their surface approach to learning. Although that study was situated in an academic setting, it provides initial support for the influence of lifelong learning characteristics on approaches to

learning. Extrapolated to the workplace and to Kirby et al.'s (2003) model of approaches to learning, it suggests a strong connection between lifelong learning characteristics and a deep approach to learning. The relationships between lifelong learning characteristics and other approaches to learning are less clear from these results. The relationship between approaches to learning at work and learning outcomes is clearer. In a study of bank managers, Froehlich et al. (2014) found that a deep approach to learning was positively associated with measures of learning, a rational approach to learning was positively associated with self-reported performance only, which is a distal measure of learning in organizational entry (Bauer & Erdogan, 2011); and a disorganized approach to learning was negatively associated with measures of learning. This indicates that the approaches to learning that students select during organizational entry affect their work adjustment.

PRESENT STUDY

Based on this review of the literature, we sought to address the following research question: are students' lifelong learning characteristics linked to work adjustment through approaches to learning? Drawing from a self-directed learning theory perspective and relevant research (Froehlich et al., 2014; Kirby et al., 2010) we hypothesized that students' approaches to learning at work would explain the relationship between their lifelong learning characteristics and work adjustment. This hypothesis is detailed in the following theoretical model (Figure 1). The model suggests that lifelong learning characteristics are linked with work adjustment and that such a link might be explained (i.e., mediated) by any of three approaches to learning.

FIGURE 1: Theoretical model of mediation pathways between students' lifelong learning characteristics and work adjustment through approaches to learning during organizational entry.



METHOD

Participants

Participants were undergraduate co-op students at a research-intensive university in Canada who were on a co-op work term at the time of the study. Such students alternate between academic terms and paid work terms each typically four-months-long. On average participants (N = 261) were 20.3 years old (SD = 1.62) and most (61.4%) were female. Most (60.0%) were enrolled in typical science, technology, engineering, or math programs. Most (91.2%) were domestic to the country in which they studied, and most (90.0%) worked in that same country. One third (31.0%) of participants reported that they worked in small organizations of fewer than 100 employees, another one third (29.9%) worked in

large organizations with more than 1000 employees, and others worked in medium-sized organizations somewhere between 100 and 1000 employees.

Procedure

Following approval from the University's ethics review board (project number 40729), potential participants were recruited to the study through their institutional email. Those who agreed to participate were asked to complete two online surveys. The first survey was administered within the first two weeks of the co-op work term. It contained measures of participants' personal characteristics and characteristics of the organizations in which participants worked. Those who completed the first survey were invited to complete a second survey. The second survey was administered 12 weeks after the first survey and was open during the last two weeks of the co-op work term. It contained measures of participants' approaches to learning at work and work adjustment.

Measures

Lifelong learning characteristics.

Lifelong learning characteristics were measured using Kirby et al.'s (2010) 14-item Lifelong Learning Questionnaire. Example items are "I feel I am a self-directed learner," and "I love learning for its own sake." Participants were asked to indicate the extent to which they agreed with each item using a five-point scale where 1 = strongly disagree and 5 = strongly agree.

Approaches to learning at work.

Approaches to learning were measured using a 21-item version of Kirby et al.'s (2003) Approaches to Work Questionnaire. The original version contains 64 items. We sought to reduce demands on participants by removing some of these items. We removed items that did not fit with the study context and retained items based on fit and factor loadings published with the original instrument (see Kirby et al., 2003, Table 1). Where necessary, items were reworded to fit the study context. For example, the phrase "this term" was added to the beginning of each item so that participants understood we were asking about approaches to learning within a single co-op work term, not approaches that might be used in a classroom setting or elsewhere. Example items are "This term, some of the issues that cropped up at work were so interesting that I pursued them though they are not part of my job" (deep approach), "This term, I preferred to follow well tried approaches to problems rather than anything too adventurous" (surface-rational approach), and "This term, I certainly want to get a good performance appraisal, but it doesn't really matter if I only just scrape through" (surface-disorganized approach). Each of the three approaches to learning were measured with seven items. Participants were asked to indicate the extent to which they agreed with each item using a five-point scale where 1 = strongly disagree and 5 = strongly agree.

Work adjustment.

Work adjustment was measured using a nine-item version of Chao et al.'s (1994) organizational socialization questionnaire. The organizational socialization questionnaire contains 34 items and would have been too long an instrument for the present study. Further, we were most interested in three of the six dimensions of work adjustment described by Chao et al. (1994): people, politics, and performance proficiency. These dimensions are most closely related to Bauer and Erdogan's (2011) popular conceptualization of work adjustment. Example items retained in the measure are "I have learned how to successfully perform my job in an efficient manner," and "I have a good understanding of the motives behind the actions of other people in the organization." Participants were asked to

indicate the extent to which they agreed with each item using a five-point scale where 1 = strongly disagree and 5 = strongly agree.

Other measures.

Participants' academic average and amount of work experience were included also. Both were selfreported. Participants self-reported their academic averages from 0% to 100%. This was included to isolate the contribution of lifelong learning to work adjustment from academic performance, which could be conflated with lifelong learning. Participants self-reported amount of work experience in terms of number of co-op work terms completed prior to the present study. This was included because work experience may be linked with work adjustment (Zhu et al., 2016). As well, we included a measure of organizational learning culture that represents the extent to which an organization provides its members access to learning opportunities and aims to leverage its members' insights for others (Marsick & Watkins, 2003). According to Marsick and Watkins (2003), such cultures have seven characteristics, they: provide access to learning opportunities, promote inquiry and experimentation, foster an atmosphere of collaborative learning, empower people to share what they have learned, implement systems that track and share learning, and demonstrate the value of learning within leadership circles. Organizational learning culture was measured using Watkins and Marsick's (2003) seven-item (short form) Dimensions of the Learning Organization Questionnaire. Example items are "In my organization, people are rewarded for learning," and "My organization makes its lessons learned available to all employees" (p. 143, 144). Participants were asked to indicate the extent to which they agreed with each item using a five-point scale where 1 = almost never and 5 = almost always. This was included to control for the organization's influence on work adjustment and to obtain more realistic estimates of the contributions of students' characteristics and approaches to their work adjustment.

Participant Attrition and Missing Data

Given that the study design included two waves of data collection, participant attrition in the study was examined. A total of 261 participants provided usable responses to the first survey. Of these, 137 provided usable responses to the second survey. Therefore, attrition was 49.4%. Such attrition is problematic when survey responses differ between those who drop out of the study and those who complete the study (Fewtrell et al., 2008). To explore this issue, we compared the measures from the first survey for the two groups. Independent samples t-tests showed, that those who dropped out of the survey did not differ from those who completed the survey in terms of lifelong learning characteristics, t(259) = .1.46, p = .15, and organizational learning culture, t(259) = .81, p = .42. Thus, participant attrition was not problematic. Once participant attrition was addressed, we examined other missing data. We found that all remaining participants provided responses to at least 90% of the items. This suggests a low amount of missing data. Missing data were replaced with median values for each instrument.

Preliminary Analyses

Descriptive statistics for and correlations between all measures are shown in Table 1. Reliability statistics for the dimensions of the learning organization questionnaire (α = .80) and work adjustment instrument (α = .79) were acceptable. The reliability statistic for the lifelong learning characteristics instrument (α = .63) was lower than the conventional standard of .70. However, this is "reasonable for a construct such as lifelong learning that is thought to have multiple aspects" (Kirby et al., 2010, p. 296). Rather than explore item deletion to improve the statistic, we thought it important to use the full instrument in its original form. Similarly, the reliability statistics for the three approaches to learning

measures (deep: α = .69; rational: α = .69, disorganized: α = .69) were below the conventional standard. Still, they were quite close to the reliabilities of the full approaches to learning instruments in previous research (see Kirby et al., 2003; Kyndt et al., 2013). As such, we deemed them appropriate for use in the present study. All the variables met assumptions of normality (skewness and kurtosis) for inclusion in analyses.

TABLE 1: Means, standard deviations, and correlations among variables (N = 137)

	Pearson Correlations							
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Lifelong learning characteristics ¹	1.00							
(2) Deep approach to learning	.26*	1.00						
(3) Rational approach to learning	07	06	1.00					
(4) Disorganized approach to learning	24*	01	.37*	1.00				
(5) Academic average	.20*	.21*	17	15	1.00			
(6) Amount of work experience	.01	.04	10	.05	06	1.00		
(7) Organizational learning culture 1	.18*	.21*	08	22*	.13*	.01	1.00	
(8) Work adjustment	.18*	.32*	.02	31*	.06	05	.25*	1.00
M	3.47	3.47	3.40	2.46	80.31	2.98	3.76	3.78
SD	.37	.65	.60	.78	7.78	1.59	.70	.50

Note. 1 measured on the time $\overline{1}$ survey, N = 261; * correlation significant at p < .05

Results of multiple linear regression analyses are shown in Table 2. The model for deep approach to learning was significant, F(4, 132) = 4.58, p = .002 and the association between lifelong learning characteristics and deep approach to learning was significant. No other variables in the model were significant. The model for rational approach to learning was not significant, F(4, 132) = 1.66, p = .16. None of the variables in the model were significant. The model for disorganized approach to learning was significant, F(4, 132) = 3.76, p = .006. As expected, the association between lifelong learning characteristics and surface-disorganized approach to learning was significant. Also, the association between organizational learning culture and disorganized approach to learning was significant. The model for work adjustment was significant, F(4, 132) = 5.63, p < .001. The association between deep approach to learning and work adjustment was significant. Also, the association between disorganized approach and work adjustment was significant.

The results of conditional process analyses exploring the indirect associations between lifelong learning characteristics and work adjustment through the three approaches to learning are shown in Table 3. Results for which the 95% confidence internal (CI) do not include zero are significant (Hayes, 2017). The results suggest that the indirect association between lifelong learning characteristics and work adjustment through a deep approach to learning was significant. The indirect association between lifelong learning characteristics and work adjustment through a rational approach to learning was not significant. The indirect association between lifelong learning characteristics and work adjustment through a disorganized approach to learning was significant. These results suggest that students' deep

and disorganized approaches to learning are potential mediators of the relationship between lifelong learning characteristics and work adjustment during organizational entry.

TABLE 2: Results of multiple linear regression analyses (N = 137)

		De appr		Ratio appro		Disorganized approach		Work Adjustment	
Variables	=	В	SE	В	SE	В	SE	В	SE
Lifelong learning characteristics		.38*	.15	04	.15	44*	.18	.02	.11
Deep approach								.22*	.06
Rational approach								.13	.07
Disorganized approach								20*	.05
Academic average		.01	.01	01	.01	01	.01	01	.01
Amount of work experience		.03	.04	05	.03	.02	.04	01	.02
Organizational learning culture		.17	.09	06	.08	22*	.10	.09	.06
	R^2	.12		.05		.10		.23	

Note. * p < .05. Abbreviations are: B = unstandardized regression coefficient, SE = standard error of the unstandardized regression coefficient.

TABLE 3: Results of conditional process analyses exploring the indirect associations between lifelong learning characteristics and work adjustment through the three approaches to learning.

Indirect Associations	Estimate	Bootstrapped SE	95% CI
Through deep approach to learning	.08	.05	.002, .21
Through rational approach to learning	01	.02	05, .05
Through disorganized approach to learning	.09	.05	.01, .20

Note. 95% CI = 95% confidence interval around the estimate

DISCUSSION

Previous research suggested that developing students into lifelong learners would help their school-to-work transitions (Drewery et al., 2017, 2020). The purpose of this study was to test the hypothesis that approaches to learning mediated, or explained, the relationship between students' lifelong learning characteristics and work adjustment. Drawing from self-directed learning theory, we proposed and found support for relationships between students' lifelong learning characteristics and approaches to learning at work. The more WIL students embodied the characteristics of lifelong learners, the more they used a deep approach to learning and the less they used a disorganized approach to learning. This is consistent with research from academic settings (Baeten et al., 2010; Kirby et al., 2010). The relationship between lifelong learning characteristics and a rational approach to learning was not

significant. Newcomers' use of a rational approach to learning may be influenced by other factors not explored in this study, such as the number of degrees individuals earned (Kyndt et al., 2013).

In turn, we also found support for relationships between approaches to learning and work adjustment. More use of a deep approach to learning and work and/or less use of a disorganized approach to learning at work was associated with greater work adjustment. This is consistent with research about the implications of deep and disorganized approaches to learning among established organizational members (Froehlich et al., 2014). Conversely, a rational approach to learning was not associated with work adjustment. The extent to which participants reported focusing on the tasks at hand, memorizing key facts, and other rational strategies had no impact on their adjustment into their roles. Kirby et al. (2003) assumed that most jobs require some degree of rational approaches to learning and so expected that such approaches would be helpful at work. In the two decades since Kirby et al. (2003) offered that assumption, students' roles have become incredibly complex (McRae et al., 2019), and this may render rational (or "surface") approaches to learning, insufficient for successful organizational entry.

The conditional process analyses add further clarity on the role of approaches to learning as mediators between lifelong learning characteristics and work adjustment. Lifelong learners used deeper or less surface approaches to learning and these approaches to learning in turn explained their work adjustment. Correlation analyses support a bivariate relationship between lifelong learning characteristics and work adjustment. Further, the linear regression analyses suggest that lifelong learning characteristics did not directly predict work adjustment. Thus, the results suggest what is sometimes called full mediation. Conceptually, this implies that approaches to learning are a strong candidate for explaining lifelong learners' successful organizational entry.

These results are intriguing given that they controlled for students' personal characteristics that may be conflated with their lifelong learning characteristics (the amount of work experience they have and their academic average). Thus, the contributions of the lifelong learning measure in the results cannot be easily explained by students' scholastic performance or experience upon which they can draw during school-to-work transitions. Further, the results controlled for the contribution of the organization during students' organizational entry. Organizational learning culture did not significantly influence students' work adjustment, but it did limit their use of a disorganized approach to learning. This seems to support the perspective that organizational learning cultures influence how individuals go about "learning their way into addressing challenges or demands" (Watkins et al., 2018, p. 22). It is also connected to results that show organizational learning cultures shape established members' approaches to learning (Froehlich et al., 2014). Our results add that the direct impact of organizational learning culture on members' learning outcomes may be weaker among student employees because they are organizational newcomers who have not fully internalized the values and norms of their organizations' culture.

Implications for Work-Integrated Learning

As mentioned in the introduction, most WIL students transition into organizational settings at some point. For some, such as the co-operative education students studied here, school-to-work transitions can unfold over several weeks. The challenge for WIL participants—students, employers, and the educators who support them—is to create opportunities for students to become organizational insiders. Getting this right is critical to creating meaningful work experiences for students and employers. WIL educators can support students' work adjustment in two ways. First, they can create or advocate for opportunities for students to develop into lifelong learners. As mentioned earlier, some of these

opportunities seem to be baked in to WIL programs. Opportunities for authentic work-based and experiential education paired with opportunities for critical self-reflection around such experiences seems central for this (Billett & Choy, 2011; Drewery & Pretti, 2021; Drewery et al., 2022).

WIL educators might seek opportunities to embed in the academic curriculum the importance of lifelong learning to students' academic success and school-to-work transitions. When the curriculum includes opportunities for learners to develop an identity as a lifelong learner, they might also develop the beliefs, attitudes, and tendencies that promote the process of lifelong learning and, the point of this paper, school-to-work transitions. Indeed, Kirby et al. (2010) once argued that the role of higher education is "to equip students with the generic ability to guide their learning throughout their lives and in the wide variety of situations they will encounter after leaving formal education" (p. 292). Scholars argue that this requires a shift from curriculum that imparts knowledge to students, to offering experiences that help students "learn how to learn" (Kirby et al., 2010, p. 292).

The second way in that WIL educators can support students' organizational entry is to educate employers about factors that affect students' work adjustment. The literature suggests that organizational conditions shape newcomers' work adjustment in several ways (Bauer & Erdogan, 2011). As one example, conditions that promote and support learning seem to influence how students approach learning at work and how these affect work-based learning outcomes (Froehlich et al., 2014; Marsick & Watkins, 2003). Educators might attract employers' attention to matters of organizational entry by demonstrating its value to employee productivity and retention (see Bauer & Erdogan, 2011). They might then explain how offering opportunities for learning helps students to adjust to their roles.

As part of this education, it seems important to advocate for a deep approach to learning. In many organizations, norms may suggest that employees take a rational approach to learning. Conversely, and despite the evidence that a deep approach to learning is helpful, employees may be discouraged from using a deep approach to learning. Consider that the behaviors associated with this approach to learning, such as exploring ideas even though they are not part of one's role (Kirby et al., 2003), could be aversive to many employers. This seems especially so in the context of WIL. There, employers are under pressure to onboard students as fast as possible to maximize output. It makes sense that such employers would want to direct students' attention toward the facts. Yet, the evidence suggests that providing space for students to explore is helpful to their organizational entry. WIL might work with employers to set the stage for such behaviors at work and doing so could enhance the quality of work experiences for students and employers alike.

CONCLUSION

The transition to work is integral to WIL programs. Preparing students for a successful transition increases the likelihood that the WIL experience will be a successful one (Rowe & Winchester-Seeto, 2022). In part, success of the experience requires that students learn how to adjust to their role and organizational context. Developing students into lifelong learners may be one way to prepare students for successful work adjustment. Students who develop lifelong learning characteristics seem better prepared for such adjustment. This supports the notion that enabling the transfer of competencies from academic settings to work settings is important to successful WIL experiences (Jackson et al., 2019). The present research highlights approaches to learning as a central concept in this area. When educators help WIL students develop into lifelong learners, that encourage deeper approaches to learning that enable successful transitions into WIL experiences. Future research should consider other methodologies that explore the relationships exposed in the present study, other factors that may

amplify those relationships, and other measures of work adjustment (such as the internalization of organizational values) that were not included here.

REFERENCES

- Baeten, M., Kyndt, E., Struyven, K., & Dochy, F. (2010). Using student-centred learning environments to stimulate deep approaches to learning: Factors encouraging or discouraging their effectiveness. *Educational Research Review*, 5(3), 243-260.
- Bauer, T. N., & Erdogan, B. (2011). Organizational socialization: The effective onboarding of new employees. In S. Zedeck (Ed.), *APA handbook of industrial and organizational psychology* (pp. 51–64). American Psychological Association.
- Biggs, J. B. (1987). Student approaches to learning and studying. Australian Council for Educational Research.
- Billett, S., & Choy, S. (2011). Cooperative and work-integrated education as a pedagogy for lifelong learning. In R. K. Coll & K. E. Zegwaard (Eds.), *International handbook for cooperative and work-integrated education: International perspectives of theory, research and practice* (2nd ed., pp. 25-30). World Association for Cooperative Education.
- Candy, P. C., Crebert, R. G., & O'leary, J. (1994). *Developing lifelong learners through undergraduate education*. Australian Government Publishing Service.
- Chao, G. T., O'Leary-Kelly, A. M., Wolf, S., Klein, H. J., & Gardner, P. D. (1994). Organizational socialization: Its content and consequences. *Journal of Applied Psychology*, 79(5), 730-743.
- Deakin Crick, R., Broadfoot, P., & Claxton, G. (2004). Developing an effective lifelong learning inventory: The ELLI project. *Assessment in Education: Principles, Policy & Practice*, 11(3), 247-272.
- Drewery, D., Nevison, C., Pretti, T. J., & Pennaforte, A. (2017). Lifelong learning characteristics, adjustment and extra-role performance in cooperative education. *Journal of Education and Work*, 30(3), 299-313.
- Drewery, D. W., & Pretti, T. J. (2021). Number of work experiences and student employability. In A. Stirling, & T. J. Pretti, (Eds.), *The practice of co-op and work-integrated learning in the Canadian context* (pp. 48-57). Co-operative Education and Work-Integrated Learning Canada.
- Drewery, D. W., Pretti, T. J., & Sproule, R. (2022). A rubric for assessing lifelong learning mindsets in work-integrated learning. In J. C. Hughes, J. Mighty & D. Stockley (Eds.), *Taking stock 2.0: Transforming teaching and learning in higher education* (pp. 294-309). Society for Teaching and Learning in Higher Education
- Drewery, D. W., Sproule, R., & Pretti, T. J. (2020). Lifelong learning mindset and career success: Evidence from the field of accounting and finance. *Higher Education, Skills and Work-Based Learning, 10*(3), 567-580.
- Entwistle, N., & Ramsden, P. (1983). Understanding student learning. Beckenham
- Entwistle, N. J. (1991). Approaches to learning and perceptions of the learning environment: Introduction to the special issue. *Higher Education*, 22(3), 201-204.
- Evans, C. J., Kirby, J. R., & Fabrigar, L. R. (2003). Approaches to learning, need for cognition, and strategic flexibility among university students. *British Journal of Educational Psychology*, 73, 507-528.
- Faure, E., Herrera, F., Kaddoura, A. R., Lopes, H., Petrovsky, A. V., Rahnema, M., & Ward, F. C. (1972). Learning to be: The world of education today and tomorrow. UNESCO
- Fewtrell, M. S., Kennedy, K., Singhal, A., Martin, R. M., Ness, A., Hadders-Algra, M., Koletzko, B., & Lucas, A. (2008). How much loss to follow-up is acceptable in long-term randomised trials and prospective studies? *Archives of Disease in Childhood*, 93(6), 458-461.
- Froehlich, D., Segers, M., & Van den Bossche, P. (2014). Informal workplace learning in Austrian banks: The influence of learning approach, leadership style, and organizational learning culture on managers' learning outcomes. *Human Resource Development Quarterly*, 25(1), 29-57.
- Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. Adult Education Quarterly, 48(1), 18-33.
- Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford Publications.
- Hojat, M., Veloski, J., Nasca, T. J., Erdmann, J. B., & Gonnella, J. S. (2006). Assessing physicians' orientation toward lifelong learning. *Journal of General Internal Medicine*, 21(9), 931-936.
- Hojat, M., Veloski, J. J., & Gonnella, J. S. (2009). Measurement and correlates of physicians' lifelong learning. *Academic Medicine*, 84(8), 1066-1074.
- Jackson, D., Fleming, J., & Rowe, A. (2019). Enabling the transfer of skills and knowledge across classroom and work contexts. *Vocation and Learning*, 12, 459-478.
- Kirby, J. R., Knapper, C., Lamon, P., & Egnatoff, W. J. (2010). Development of a scale to measure lifelong learning. *International Journal of Lifelong Education*, 29(3), 291-302.
- Kirby, J. R., Knapper, C. K., Evans, C. J., Carty, A. E., & Gadula, C. (2003). Approaches to learning at work and workplace climate. *International Journal of Training and Development*, 7(1), 31-52.
- Knapper, C. K., & Cropley, A. (2000). Lifelong learning in higher education (3rd ed.). Kogan Page.

- Kyndt, E., Dochy, F., Struyven, K., & Cascallar, E. (2011a). The direct and indirect effect of motivation for learning on students' approaches to learning through the perceptions of workload and task complexity. *Higher Education Research & Development*, 30(2), 135-150.
- Kyndt, E., Dochy, F., Struyven, K., & Cascallar, E. (2011b). The perception of workload and task complexity and its influence on students' approaches to learning: A study in higher education. *European Journal of Psychology of Education*, 26(3), 393-415.
- Kyndt, E., Raes, E., Dochy, F., & Janssens, E. (2013). Approaches to learning at work: Investigating work motivation, perceived workload, and choice independence. *Journal of Career Development*, 40(4), 271-291.
- Marsick, V. J., & Watkins, K. E. (2003). Demonstrating the value of an organization's learning culture: the dimensions of the learning organization questionnaire. *Advances in Developing Human Resources*, 5(2), 132-151.
- McRae, N., Church, D., Woodside, J. M., Drewery, D., Fannon, A., & Pretti, J. (2019). Toward a future-ready talent framework for co-operative and work-integrated learning. *Proceedings 5th International Conference on Higher Education Advances*, 1255-1262.
- Pennaforte, A. (2016). The influence of proactive socialization behaviors and team socialization on individual performance in the team. *Asia-Pacific Journal of Cooperative Education*, 17(4), 413-421.
- Pilling-Cormick, J., & Garrison, D. R. (2007). Self-directed and self-regulated learning: Conceptual links. *Canadian Journal of University Continuing Education*, 33(2), 13-33.
- Rose, P. (2016). Interns proactively shaping their organizational experience: The mediating role of leader member exchange. Asia-Pacific Journal of Cooperative Education, 17(3), 309-323.
- Rowe, A. D., & Winchester-Seeto, T. (2022). Support for student learning in work-integrated learning: A holistic framework. In S. J. Ferns, A. D. Rowe & K. E. Zegwaard (Eds.), *Advances in research, theory and practice in work-integrated learning:*Enhancing employability for a sustainable future (pp. 96–106). Routledge.
- Watkins, K. E., & Marsick, V. J. (2003). Summing up: Demonstrating the value of an organization's learning culture. *Advances in Developing Human Resources*, 5(2), 129-131.
- Watkins, K. E., Marsick, V. J., Wofford, M. G., & Ellinger, A. D. (2018). The evolving Marsick and Watkins (1990) theory of informal and incidental learning. *New Directions for Adult and Continuing Education*, 159, 21-36.
- Wielkiewicz, R. M., & Meuwissen, A. S. (2014). A lifelong learning scale for research and evaluation of teaching and curricular effectiveness. *Teaching of Psychology*, 41(3), 220-227.
- Zhu, J., Wanberg, C. R., Harrison, D. A., & Diehn, E. W. (2016). Ups and downs of the expatriate experience? Understanding work adjustment trajectories and career outcomes. *Journal of Applied Psychology*, 101(4), 549-568.

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.

The Journal is financially supported by the Work-Integrated Learning New Zealand (WILNZ; www.wilnz.nz), and the University of Waikato, New Zealand, and receives periodic sponsorship from the Australian Collaborative Education Network (ACEN), University of Waterloo, and the World Association of Cooperative Education (WACE).

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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