An Experientially-Mediated Career Development Group Increases Core Competencies and Career Readiness in University Students

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Abstract

University students (n = 26; M = 24.7 years) attended an experientially-mediated career development intervention in small groups. Programming was psychoeducational and process-oriented (i.e., presentation of career-related information, individual career-related assessment and interpretation, hands-on learning activities). Twice during the intervention, attendees completed measures of career-related dysfunctional thinking, hope, and self-awareness. The control group (n = 22; M = 22.3 years) twice completed the same measures approximately six weeks apart. Analyses of pre- to post-scores indicated that more attendees reported increased hope-action competency for career self-management, increased career-related self-awareness, and less career confusion relative to the control group (ps < .05). Our findings underscore the value of experiential learning (EL) as a career development tool as well as the cost-effectiveness of providing a limited number of small group career sessions. Moreover, our findings help validate our conceptual model of how experiential learning can support undergraduate students to develop the core competencies necessary for workplace success (Bowering et al., 2020).

Keywords: Career development group, experiential learning, model of core competency development, university student

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In recognition of the ever-increasing demands of today's workplace, we developed a theoretical model that argues that universities need to support the development of three core competencies in students: Self-awareness and regulation, cognitive and metacognitive processing, and social awareness and responsible citizenship (Bowering et al., 2020). Moreover, we recommended experiential learning (EL) as a pedagogical approach by which universities might effectively do so. As conceptualized by David Kolb (1984, p. 38), experiential learning is a pedagogical approach "whereby knowledge is created through the transformation of experience", thus helping students "develop skills, clarify values, and develop ... capacity to contribute to their communities" (Association for Experiential Education, n.d.). Here, learners engage in a cyclical process of concrete experience, reflective observation (What happened?), abstract conceptualization (What does it mean?), and active experimentation (i.e., testing/applying their understanding to make decisions).

The literature has shown that university students who participate in EL activities (e.g., work-integrated learning, service learning, internship, co-operative education, study abroad) benefit not only academically and socially but also gain soft skills (e.g., time management, communication, teamwork) that promote career success (e.g., de Villiers Scheepers et al., 2018; Yorio & Ye, 2012). As discussed in our previous paper (Bowering et al., 2020), most theories of career development recognize the influence of environmental factors (e.g., significant others, culture) in shaping career selection, pathways, and outcomes. For example, Happenstance Learning Theory claims that "human behaviour is the product of countless numbers of learning experiences made available by both planned and unplanned situations in which individuals find themselves. The learning outcomes include skills, interests, knowledge, beliefs, preferences, sensitivities, emotions and future actions" (Krumboltz, 2009, p. 135). Critical reflection helps individuals process and better understand how their experiences impact their career development (Kolb, 1984).

In the research study described here, we examine the process by which an educational intervention *situated within an EL framework* shaped career-related development in university students. Specifically, our multi-session, process-oriented career development support group experience included hands-on learning activities and critical reflection (i.e., an EL framework) and was intended to increase career-related self-awareness and hope while decreasing negative career thoughts (i.e., dysfunctional thinking). We conceptualized self-awareness as one's understanding of their personal values, beliefs, goals, thoughts, and

feelings and hope as "the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (Synder, 2002, p. 249). We agree with Synder that hope is "primarily a way of thinking, with feelings playing an important, albeit contributory role" (Synder, 2002, p. 249). As hypothesized, the university students who attended the psychoeducational career development group exhibited increased career-related self-awareness, hope, and positive career thoughts in comparison to a control group. Our results provide support for our theoretical model that advocates for "hands-on" experience combined with critical reflection in shaping the core competencies that are required for career development.

Career Development Theories

Post-secondary students have faced many pressures over the past few years including the rising cost of education as well as a shifting labour market that included remote learning and work resulting from the COVID-19 pandemic. These pressures have complicated student career planning and readiness to enter the labour market. Career Services professionals in post-secondary settings therefore have needed to find effective ways to support students experiencing uncertainty, anxiety, and doubt. Our career development intervention consisted of career education including self-assessment, EL activities, and critical reflection and utilized the career theories described below.

Cognitive Information Processing Theory posits that career development involves self and occupational knowledge, metacognitive processes (how individuals think about careers), affect (e.g., anxiety), as well as the ability to make decisions and take action (Peterson et al., 1996). The theory has lent itself to considerable research, as well as development of the Career Thoughts Inventory (Sampson et al, 2013) which was used in our study. Through career courses, participants have been shown to overcome negative career thoughts and career indecisiveness (Austin et al., 2004; Freeman et al., 2017; Reed et al., 2001; Osborn et al., 2007; Osborn et al., 2020; Prescod et al., 2019; Thrift et al., 2012). Our intervention drew upon Cognitive Information Processing Theory as we required participants to self-assess and critically reflect, identify their negative career thoughts and learn strategies to reframe these thoughts, and prepare to take goal-directed actions. We extended previous research in that participation in EL activities combined with critical reflection were woven throughout our sessions.

Hope Action Theory speaks to the essential competencies (i.e., hope, self-reflection, self-clarity, visioning, goal setting and planning, implementing, and adapting) necessary to create career-related hope (Niles et al., 2019) and to maintain hope despite an ever-changing work environment and world (Niles, 2011; Niles et al., 2010). In fact, Hope Action Theory has contributed to research with diverse populations that include retired military officers (Wood, 2022) and individuals with substance use challenges (Currie & Bedi, 2023; Currie et al., 2024) and provided the foundation for the creation of a career development framework for employees dealing with the unique challenges posed by the COVID-19 pandemic (Yoon et al., 2021). Research has also shown that both online and in-person groups using hope-centered career interventions increased employment center clients' hope and understanding of their career situation (Amundson et al., 2018). Moreover, undergraduate students who are hopeful participate in meaningful activities that support self and career knowledge (vocational identity) and academic grades (Yoon et al., 2015). In the current study, we used a Hope Action Theory framework to construct a hope-centered intervention. We targeted the hope competencies through exercises and group discussions. We held the intervention online during the COVID-19 pandemic and then face-to-face when learning returned to in-person settings.

Our intervention also drew on Happenstance Learning Theory (Krumboltz, 2009) in that university students were required to critically reflect on their past academic, work, and/or co-curricular experiences and what they learned from them. They also were asked to set new goals and participate in EL activities (i.e., mock interview, networking at a career fair) that could create additional learning and opportunities.

Finally, Holland's Theory of Career Choice (Holland, 1959) is an established career theory that helps people make career decisions based on their interest patterns. The Strong Interest Inventory (Donnay et al., 2005) was developed based on this theory and is widely used to help post-secondary students discover and take action toward their career goals. As described by Niles et al. (2010), while career assessments can be helpful, self-reflection activities prompt people to derive deeper meaning and foster self-clarity. In our study, after

participants had completed self-assessment and other activities, the Strong Interest Inventory was offered as an optional activity.

Methods

Participants

The Experimental Group was drawn from students who attended the Professional Career Development Group (PCDG) offered at the university at which the second author was employed. The sample (*M* age = 24.7 years, *SD* = 3.4, *R* = 21-32) was composed of 26 students (24 females, 2 males) who were primarily full-time (88.5%) and either in their fourth or fifth years of undergraduate study (53.8%) or at the graduate level (42.3%). Most were Asian (42.3%) or Caucasian (38.5%) although some identified as Black (11.5%), multiracial (3.9%), or "Other" (3.9%). Their motivations to attend the PCDG included to get a job after graduation (23.1%), to increase their confidence (23.1%), to address anxiety about the future (19.2%), to learn new things (15.4%), and to be prepared for the future (11.5%).

In contrast, the Control Group was composed of students who did not attend the PCDG. The Control Group (*M* age = 22.3 years, *SD* = 2.4, *R* = 19-29) consisted of 22 students (17 females, 5 males) who primarily were full-time (90.9%) and either in their fourth year of undergraduate study (54.6%) or at the graduate level (27.3%). Most were Caucasian (45.5%), while some identified as Asian (9.1%), Black (4.6%), multiracial (4.6%), "Other" (31.8%), or declined to disclose their ethnicity (4.6%). While most participants attended the same university as the Experimental Group, we also recruited at a second university in the same city in order to secure a Control Group of adequate size.

Procedure

In keeping with its mandate, Career Services at a local university offered a multi-session Professional Career Development Group (free of charge) to their students. The opportunity was advertised via their MyCareer site, social media blasts, campus-based digital TV screens, and via notices to departments and student societies. Interested students pre-registered online and later engaged in a pre-screening intake (via emails and/or telephone calls) with the career counsellor who described the program, gathered information relevant to program preparation, and confirmed that the student was in their graduating year. Eligible students were admitted to the PCDG on a first come, first served basis.

Once the PCDG began, and as part of the programming, the students completed the Career Thoughts Inventory (CTI), Hope Action Inventory (HAI), and the Self-Awareness Questionnaire (SAQ) at the first session (i.e., Time 1) and after the fourth session (i.e., Time 2), which occurred approximately 4.5 weeks apart. The career counsellor subsequently shared her interpretation of the responses with the attendees. Students provided feedback on the group experience after the fourth session.

The first author (who was the primary researcher (PI) and not involved in facilitating the PCDG) briefly attended two sessions to describe the research study, emphasizing that students were under no obligation to take part. Once the researcher left the session, willing students provided written informed consent which allowed the career counsellor to release their anonymized questionnaire data (i.e., CTI, HAI, and SAQ) to the first author.

To recruit a Control Group, the research study was advertised via social media at two universities in the same city. Students who had attended the PCDG were not eligible to participate. After providing informed consent, the participants twice completed (at a six week interval) and emailed their CTI, HAI, and SAQ questionnaires to the first author, and then received compensation of $25. This study received ethics approval from the Research Ethics Board, Mount St Vincent University, with Dalhousie University acknowledged as the Board of Record.

Description of the Professional Career Development Group

The Professional Career Development Group (PCDG) is a psycho-educational group that was created and facilitated by an experienced career counsellor to help graduating university students build self-awareness and hope and to manage career-related anxiety and dysfunctional thinking in setting and achieving career goals. Students met face-to-face or online once a week (for 90 minutes) for five weeks in small groups of less than 10. The group ran in an online format for four rounds in the 2020/21 academic year, two rounds during the 2021/22 academic year, and in-person for two rounds during the 2022/23 academic year. Students who attended all five sessions were eligible to receive recognition for professional development on their University Co-Curricular Record.

Sessions included a variety of Career Services offerings including experiential opportunities: Presentation of career-related information, including a presentation by a career advisor guest speaker, as well as hands-on learning activities that included questioning, peer-to-peer discussion, writing, and other reflective methods (see Table 1). A unique aspect of the group was the inclusion of individual career-related assessment (i.e., CTI, HAI, and SAQ) followed by interpretation by the career counsellor and the small group peer discussions.

Table 1

Description of the Professional Career Development Group

	Session Outcomes	Learning Activities
Session 1:	• Introduction to the group	• Introduction to the facilitator and to other group participants, pair share activity
	• Build participant connections	• Career inventories administered (Time 1): Hope Action Inventory, Career Thoughts Inventory, and the Self-Awareness Questionnaire
	• Understand how career theories and self-assessment connect to career goal setting	• Self-assessment: Values identification activity
	• Completion of career inventories	
	• Visit by PI	
Session 2:	• Recognize skills developed from experiences	• Continued self-assessment: Self-reflection and identification of learning and skills from experience exercise; consider rating of skills on Self-Awareness Questionnaire and set goals for learning/improving skills
	• Develop skills in visioning/imagining possibilities for the future	• Visioning the future: Your ideal work day activity (Sicoli & Steele Walters, 1997)
	• Learn strategies for overcoming career-related and networking anxiety in a changing labour market	• Homework: Attend career fair
	• Learn about the visible and hidden job market, how to prepare for career fair and employment programs for new graduates, mock interview process (Career Advisor guest speaker)	

	Session Outcomes	Learning Activities
Session 3:	• Learn strategies for overcoming negative career thoughts and managing interview anxiety	• Interpretation of Career Thoughts Inventory scores
		• Thinking more helpful thoughts activity (adapted from Carr, et al., 2004)
		• Practice responding to behavioural interview questions in small groups with feedback
		• Mock interview (held separately outside of sessions)
Session 4:	• Learn strategies to overcome decision making and other barriers	• Interpretation of Hope Action Inventory scores
	• Learn how to set effective goals	• Viewed and reflected on Amundson's 'Walking the problem' activity via video (Amundson & Goddard, 2017)
	• Deal more effectively with rejection and build resilience during the career/job search	• Goal setting activity: Write out long-term goal and sub-goals/steps
	• Learn about Holland's themes and optional Strong Interest Inventory (Donnay et al., 2005).	• Staying afloat (adapted from Amundson, 2010; CERIC, 2018)
		• Description of Holland's themes and party activity (adapted from Bolles, 2014)
Session 5:	• Understand changes between Time 1 and Time 2 career inventory results	• Career inventories re-administered (prior to session) and interpreted (Time 2): Hope Action Inventory, Career Thoughts Inventory, and the Self-Awareness Questionnaire
	• Understand Strong Interest Inventory results	• Interpretation of the Strong Interest Inventory
	• Learn how to build support networks, self-care plan, other available resources and set goals for next steps	• Build a self-care plan
	• Visit by PI	• Set goals for next steps
		• Evaluation and wrap-up

Measures

Career Thoughts Inventory

The Career Thoughts Inventory (CTI) (Sampson et al., 2013) measures negative career thoughts that interfere with career decision-making. The respondent answers 48 items using a 4-point Likert scale (i.e., Strongly disagree, Disagree, Agree, Strongly agree). The Total Score is a global indicator of dysfunctional career decision-making thinking. The three subscales include Decision-Making Confusion (e.g., I'm so confused, I'll never be able to choose a field of study or occupation.), Commitment Anxiety (e.g., I worry a great deal about choosing the right field of study or occupation.), and External Conflict (e.g., Whenever I've become interested in something, important people in my life disapprove.).

Hope Action Inventory

The Hope Action Inventory (HAI) (Niles et al., 2010) measures hope-related career competencies. The respondent answers 28 items using a 4-point Likert scale (i.e., Definitely false, Somewhat false, Somewhat true,

Definitely true). The Total Score is a global indicator of hope-related career competencies. The seven subscales include Hope (e.g., I am hopeful when I think about my future.), Self-Reflection (e.g., I think about things that have happened to me.), Self-Clarity (e.g., I can describe who I am.), Visioning (e.g., I often dream about my future.), Goal Setting and Planning (e.g., I set deadlines to complete my goals.), Implementing (e.g., I keep myself focused so that I can complete my plans.), and Adapting (e.g., I am willing to try new experiences that might help me to achieve my goals.).

Self-Awareness Questionnaire

The Self-Awareness Questionnaire (SAQ) was developed by the authors to measure self-awareness (knowing how interests and values affect career choices), skill, and confidence in setting career goals and taking actions toward a career, as well as the skills needed in the working world (e.g., ability to apply skills, organization, social self-confidence, ability to work with others, communication, problem-solving,). The respondent answers nine items using a 7-point Likert score (i.e., ranging from Not at all to Very much so). The Total Score is a global indicator of career-related self-awareness.

The SAQ at Time 2 requested feedback on the PCDG. The respondent rated the PCDG quality on a 4-point Likert scale and answered open-ended questions about the intervention's impact on their career goals and future employment plans.

Data Analysis

1. The feedback from the participants who attended the PCDG was summarized as percentage scores.
2. As each participant twice completed the HAI, SAQ, and CTI, we counted the number of participants who demonstrated an improved performance from Time 1 to Time 2, with a difference greater than 0 indicating improvement. (The CTI scores were reverse coded.) We then used a chi-square test to analyze a series of 2 X 2 contingency tables, with the variables being "improvement" versus "no improvement" for the Experimental Group versus the Control Group. We report the analyses for the HAI and the seven subscales, CTI and the three subscales, and the SAQ and the nine items.

Results

Participant Feedback on the PCDG

The Experimental Group provided overwhelmingly positive feedback on the PCDG at Session 5, rating the intervention as either excellent (73.1%) or good (26.9%) but not fair (0%) or poor (0%). Additionally, 92.3% (n = 24) of the Experimental Group reported that the career group changed the way that they saw themself. Specifically, respondents indicated that the PCDG helped them to increase their confidence for entering the workforce (46.2%), to self-reflect so as to understand themselves better (34.6%), to work on identifying their career goals (11.5%), to face challenges entering their desired work field (3.9%), and to feel less stressed for their future (3.9%). Additionally, 73.1% (n = 19) of the Experimental Group reported that the PCDG impacted their career goals and plans. Specifically, the PCDG helped the students to develop clearer career goals (38.5%), change their career goals (15.4%), consider other career options (7.7%), encouraged them to put in more work and effort to achieving their career goals (7.7%), increase confidence (7.7%), and allowed them to network with others (7.7%). Finally, the PCDG helped students to plan ahead/organize their future employment (7.7%), and to be more confident (34.6%), including being better prepared for interviews (11.5%).

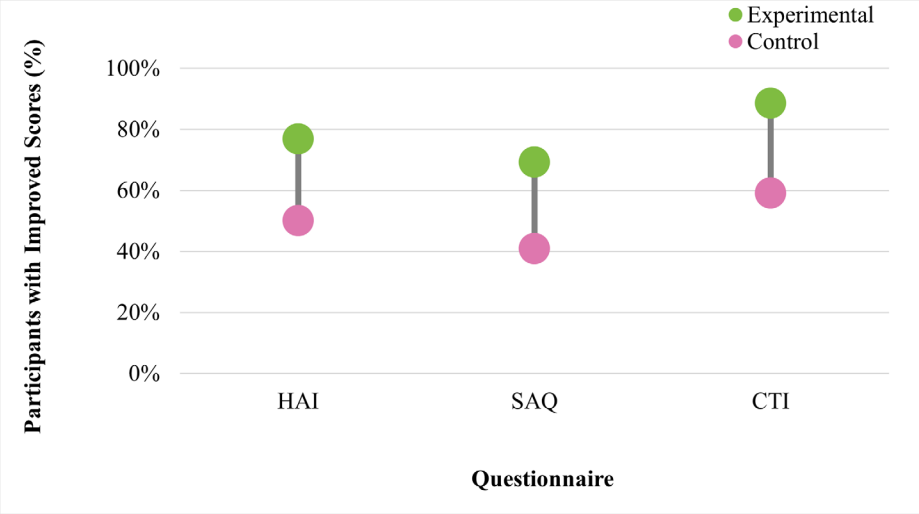
Impact of Career Intervention on Hope-Action Competency (HAI)

A Chi-square test revealed a statistically significant association between participating in the intervention and the HAI Total score (χ^2 (1, N = 48) = 3.78, p = .052) and the HAI Self-Clarity score (χ^2 (1, N = 48) = 4.48, p = .034). Approximately 76.9% of the Experimental Group demonstrated improved hope-

action competency and 57.6% demonstrated improved self-clarity compared to 50.0% and 27.3% respectively for the Control Group (see Figure 1). In contrast, there were non-significant associations for the Hope, Self-Reflection, Goal Setting and Planning, Implementing, and Adapting subscale scores (respectively, χ^2 (1, N = 48) = .80, p = .37; χ^2 (1, N = 48) = 2.57, p = .11; χ^2 (1, N = 48) = 2.03, p = .15; χ^2 (1, N = 48) = .13, p = .72; χ^2 (1, N = 48) = .40, p = .53), with a trend observed for the Visioning subscale score (χ^2 (1, N = 48) = 2.86, p = .09).

Figure 1

Percentages of the Experimental Group and Control Group with improved HAI, SAQ, and CTI Total scores



Impact of Career Intervention on Self-Awareness (SAQ)

A Chi-square test revealed a statistically significant association between participating in the intervention and the SAQ Total score (χ^2 (1, N = 48) = 3.88, p = .049), Self-awareness item score (i.e., knowing my interests, values, strengths and how they affect my career choices; χ^2 (1, N = 48) = 23.03, p < .001), and Applying skills in the work world item score (χ^2 (1, N = 48) = 12.31, p <.001). Approximately 69.2% of the Experimental Group demonstrated improved overall self-awareness, 73.1% demonstrated improved self-awareness in knowing their interests, and 57.7% demonstrated improved application of skills compared to 40.9%, 4.5%, and 9.1% respectively of the Control Group (see Figure 1).

In contrast, there were non-significant associations for Skill in setting goals and taking action toward my career (χ^2 (1, N = 48) = 2.71, p = .10) and Confidence in setting goals and taking action toward my career (χ^2 (1, N = 48) = 2.35, p = .13). Similarly, non-significant associations were observed for working world organizational skills, social self-confidence, ability to work with others, communication skills, and problem solving skills (respectively, χ^2 (1, N = 48) = 1.01, p = .32; χ^2 (1, N = 48) = 1.61, p = .21; χ^2 (1, N = 48) = .44, p = .51; χ^2 (1, N = 48) = .56, p = .45; χ^2 (1, N = 48) = 1.86 p = .17).

Impact of Career Intervention on Career Confusion (CTI)

A Chi-square test revealed a statistically significant association between participating in the intervention and the CTI Total score (χ^2 (1, N = 48) = 5.48, p = .019), Decision-Making Confusion subscale score (χ^2 (1, N = 48) = 3.93, p = .047), and the Commitment Anxiety subscale score (χ^2 (1, N = 48) = 9.95, p = .002) but not the External Conflict subscale score (χ^2 (1, N = 48) = 1.18, p = .28). Approximately 88.5% of the Experimental Group demonstrated less career confusion, 84.6% less decision-making confusion, and 84.6% decreased commitment anxiety compared to 59.1%, 59.1%, and 40.9% respectively of the Control Group (see Figure 1).

Discussion

The current study was a collaborative partnership across two universities between a Psychology faculty member and a career counsellor that resulted in the creation, implementation, and research evaluation of an experientially-mediated career support group for university students. Created within the context of an EL framework, the PCDG emphasized hands-on learning experiences combined with critical reflection (e.g.,

participation in Career Services offerings). Completion of standardized questionnaires combined with their interpretation by the career counsellor offered further opportunity to gain self-knowledge, which is central to career development.

In 2020, we published a theoretical model of core competencies that undergraduate students can develop as a result of experiential learning (EL) opportunities (Bowering et al., 2020). These competencies include self-awareness and regulation, cognitive and metacognitive processing, and social awareness and responsible citizenship. In keeping with our theoretical model, we predicted that our experientially-mediated career group would support core competency development, and specifically measured the PCDG's impact on self-awareness, hope, and career-related anxiety, which fall within the domains of self-awareness and cognitive and metacognitive processing. One strength of the PCDG was that completion of the questionnaires provided participants with concrete self-knowledge of their career thoughts, hope action competencies, and skill level, thereby highlighting potential areas that would benefit from reflection and growth. Through small and broader group discussions, participants examined their ways of thinking and past experiences, thus enabling peers to support each other's career development. This process of critical reflection combined with feedback supports the development of self-awareness and hope, without which meaningful career planning and identification of suitable options for oneself cannot come about. As the intervention was not designed to strengthen the competencies of responsible citizenship and social awareness, we did not assess these areas in our study.

Analysis of the pre- and post-questionnaires of attendees compared to a control group supported the effectiveness of the group in increasing career-related development in university students. Specifically, the group increased hope-action competency (including self-clarity), increased career-related self-awareness (including knowing your own values and interests and being able to apply your skills in the working world), and decreased dysfunctional career decision-making (including career decision-making confusion and commitment anxiety). We were gratified to see these improvements given that the participants were motivated to attend the group to increase their confidence and to address anxiety about the future. These research findings help validate our theoretical model of the role that experiential learning can play in facilitating these core competencies in university students.

While we saw significant improvements in self-clarity, perhaps because the group intervention heavily emphasized gaining insight into the self, the PCDG intervention did not increase some aspects of hope competency (e.g., implementing, adapting) and self-awareness (e.g., organization, problem-solving). We were not surprised by this. As pointed out by Castillo-Cifuentes et al. (2024), since 2020, young people are less likely to take part in work-integrated learning (WIL) opportunities (and we did not directly question our participants about WIL experiences). Our time-limited intervention was not designed to practice and test out certain skill sets (e.g., organization, teamwork). Perhaps students need to begin their post-graduation careers and take part in the work world before they have confidence in new self-awareness skills. In other words, the specific nature of the experiential opportunity may bring about some skill sets more than others.

As predicted, we also observed decreased decision-making confusion and commitment anxiety (as measured by the CTI), which fall within the domain of cognitive and metacognitive processing. As is well known, students report that their primary motivation to attend university is to identify a career and commit tremendous financial resources to their degree program. Perhaps not surprisingly, many post-secondary students fear making mistakes and are looking for the "perfect" career choice. Consequently, these types of career-related worries were specifically targeted in the group intervention. Participants engaged in exercises with peers to analyze and re-frame negative career thoughts to more positive and hopeful ways of thinking. Finally, and not surprisingly, participants did not report changes in External Conflict on the CTI (which measures whether external factors, including others, affect your career decisions). Our group intervention was psychoeducational in nature and did not counsel participants about individual concerns such as family and peer relations and cultural influences. All students were made aware, however, of the availability of personal counselling if they wished to process specific concerns. Counsellors need to remain aware that family members can be heavily influential in career planning, perhaps especially for international students from collectivist cultures (Arthur & Popadiuk, 2010; Shen & Herr, 2004; Singaravelu et al., 2005).

Study Design and Future Research

Evaluation of career support groups often rely on methods that speak more to student satisfaction with their experience than with the effectiveness of the program per se. A strength of our study is that it was quasi-experimental in nature, used a pre- and post-test design to measure program effectiveness, and included a control group. Additionally, the treatment was theoretically robust as it utilized evidence-based career development and experiential learning theoretical orientations. Because of practical constraints, however, the treatment group was self-selected and non-randomized.

Future research could consider a longitudinal-experimental design that follows treatment participants over time as they begin their careers, examining factors such as time taken to find employment in their chosen field and career satisfaction. Additionally, as our treatment included online and in-person options, future research should consider evaluating whether there is a differential impact of session type.

Related to that, different types of experiential activities (e.g., work-integrated learning, service learning, internship, cooperative learning, study abroad) and settings (e.g., classroom, workplace, community) are likely to bring about distinct learning outcomes, core competencies, and benefits. Research must continue to study how educators and employers can harness the experiential learning pedagogy to realize learner-employee potential.

Conclusion

Our findings underscore the usefulness of experiential learning as a career development tool and the cost-effectiveness of providing a limited number of small group career development sessions to post-secondary students. More broadly, our findings provide evidence to support our theoretical model of how experiential learning can contribute to career-related core competency development. Our observation that the greatest impact lay in the domains of self-awareness and regulation as well as cognitive and metacognitive processing likely reflects our specific EL format and intervention components (i.e., a career support group). We suspect that social awareness and responsible citizenship are more likely to be strengthened in a service learning or WIL placement. This is an area for future research. Given today's emphasis on implementing EL in post-secondary education as well as interest by employers in attracting candidates with appropriate career-related competencies, our findings are significant and timely.

References

Amundson, N., & Goddard, T. (2017). *Hope-centred career interventions with Dr. Norman Amundson & Tannis Goddard*. CERIC. https://www.youtube.com/watch?v=KRU2YqXEDpg&t=1887s

Amundson, N., Goddard, T., Yoon, H. J., & Niles, S. (2018). Hope-centred interventions with unemployed clients. *Canadian Journal of Career Development*, *17*(2), 87-98. https://doi.org/10.53379/cjcd.2018.81

Amundson, N. E. (2010). *Metaphor making: Your career, your life, your way*. Ergon Communications.

Arthur, N., & Popadiuk, N. (2010). A cultural formulation approach to career counseling with international students. *Journal of Career Development*, *37*(1), 423-440. https://doi.org/10.1177/0894845309345845

Association for Experiential Education. (n.d.). *What is experiential education?* http:www.aee.org/what-is-ee

Austin, K., Wagner, B., & Dahl, D. (2004). Reducing career indecisiveness in adults. *International Journal of Disability, Community & Rehabilitation*, *3*(2). https://www.ucalgary.ca/uofc/Others/ijdcr/VOL03_02_CAN/articles/austin.shtml

Bolles, R. N. (2014). *What color is your parachute? A practical manual for job-hunters and career-changers*. Ten Speed Press.

Bowering, E., Frigault, C., & Yue, A. R. (2020). Preparing undergraduate students for tomorrow's workplace: Core competency development through experiential learning opportunities. *Canadian Journal of Career Development*, *19*(1), 56-68. https://doi.org/10.53379/cjcd.2020.25

Carr, D., Sampson, J. P., Lenz, J., Peterson, G., Reardon, R., & Saunders, D. (2004).*Thinking more helpful thoughts about career decision making*. In Carr, D. L. (2004). A model for evaluating the effectiveness

of cognitive reframes of dysfunctional career thoughts (Technical Report 36 Revised). Tallahassee, FL: Center for the Study of Technology in Counseling and Career Development, Florida State University. https://career.fsu.edu/sites/g/files/imported/storage/original/application/9816c15ba3cdee3a302be136ba47575f.pdf

Castillo-Cifuentes, V., Ferrer, A., Jolin, M., Dougherty, I., & Clarke, A. (2024). *Facing challenges, finding opportunity: Young people in Canada navigating a new employment reality. Initial insights from the RBC Young People & Economic Inclusion Longitudinal Study*. Youth & Innovation Project. University of Waterloo. https://uwaterloo.ca/youth-and-innovation/sites/default/files/uploads/documents/facing-challenges-finding-opportunity-report_english.pdf

CERIC. (2018, May 17). *Hope-centered career interventions research project*. https://ceric.ca/wpdm-package/hope-centred-career-interventions-research-project

Currie, L. N., & Bedi, R. P. (2023). Developing norms for the Hope-Action Inventory with a substance misuse sample. *Canadian Journal of Career Development*, *22*(2), 94-103. https://doi.org/10.53379/cjcd.2023.362

Currie, L. N., Bedi, R. P., & Hubley, A. M. (2024). Psychometric evaluation of the Hope-Action Inventory in individuals with substance use issues. *Measurement and Evaluation in Counseling and Development*, *57*(1), 30-46. https://doi.org/10.1080/07481756.2023.2185157

de Villiers Scheepers, M. J., Barnes, R., Clements, M., & Stubbs, A. J. (2018). Preparing future-ready graduates through experiential entrepreneurship. *Education & Training*, *60*(4), 303-317. https://doi.org/10.1108/ET-11-2017-0167

Donnay, D. A. C., Morris, M. L., Schaubhut, N. A., & Thompson, R. C. (2005). *Strong Interest Inventory Manual: Research, Development, and Strategies for Interpretation*. CPP Inc.

Freeman, V. F., Lenz, J. G., & Reardon, R. C. (2017). Career course impact on college students' career decision and affective states. *Vistas Online*, *32*(1), 1-14. (Closed Journal) https://manifold.counseling.org/read/career-course-impact-on-college-students-career-decision-and-affective-states/section/99302fbb-f27c-4b53-8c1d-e618d6d71901

Holland, J. L. (1959). A theory of vocational choice. *Journal of Counseling Psychology*, *6*, 35-44. https://doi.org/10.1037/h0040767

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Prentice-Hall.

Krumboltz, J. D. (2009). The Happenstance Learning Theory. *Journal of Career Assessment*, *17*(2), 135-154. https://doi.org/10.1177/1069072708328861

Niles, S. G. (2011). Career flow: A hope-centered model of career development. *Journal of Employment Counseling*, *48*(4), 173-175. https://doi.org/10.1002/j.2161-1920.2011.tb01107.x

Niles, S. G., Amundson, N. E., & Yoon, H. J. (2019). *Hope-action theory: Creating and sustaining hope in career development*. In N. Arthur, R. Neault, & M. McMahon (Eds.), Career theories and models at work: Ideas for practice (pp. 283-294). CERIC. https://ceric.ca/publications/career-theories-and-models-at-work-ideas-for-practice/

Niles, S. G., Yoon, H. J., & Amundson, N. E. (2010). *Career flow index: Hope-centered career development competencies* [Unpublished manuscript]. University Park, PA.

Niles, S. G., Yoon, H. J., Balin, E., & Amundson, N. E. (2010). Using a hope-centered model of career development in challenging times. *Turkish Psychological Counseling and Guidance Journal*, *4*(34), 101-108. https://www.researchgate.net/publication/334432521_Using_A_Hope-Centered_Model_of_Career_Development_in_Challenging_Times

Osborn, D. S., Howard, D. K., & Leierer, S. J. (2007). The effect of a career development course on the dysfunctional career thoughts of racially and ethnically diverse college freshman. *Career Development Quarterly*, *55*(4), 365-377. https://doi.org/10.1002/j.2161-0045.2007.tb00091.x

Osborn, D. S., Sides, R. D., & Brown, C. A. (2020). Comparing career development outcomes among undergraduate students in Cognitive Information Processing Theory-based versus Human Relations courses. *Career Development Quarterly*, *68*(1), 32-47. https://doi.org/10.1002/cdq.12211

Peterson, G. W., Sampson, J. P., Jr., Reardon, R. C., & Lenz, J. G. (1996). *A cognitive information processing approach to career problem solving and decision making*. In D. Brown, L. Brooks, & Associates (Eds.), Career choice & development (3rd ed., pp. 473-475). Jossey-Bass.

Prescod, D., Gilfillan, B., Belser, C., Orndorff, R., & Ishler, M. (2019). Career decision-making for undergraduates enrolled in career planning courses. *College Quarterly*, *22*(2). https://files.eric.ed.gov/fulltext/EJ1221402.pdf

Reed, C. A., Reardon, R. C., Lenz J. G., & Leierer S. J. (2001). A cognitive career course: From theory to practice. *Career Development Quarterly*, *50*, 158-167. http://doi.org/10.1002/j.2161-0045.2001.tb00980.x

Sampson, J. P., Jr., Peterson, G. W., Lenz, J. G., Reardon, R. C., & Saunders, D. E. (2013). *Career Thoughts Inventory*. Odessa, FL: Psychological Assessment Resources.

Shen, Y-J., & Herr, E. L. (2004). Career placement concerns of international graduate students: A qualitative study. *Journal of Career Development*, *31*(1), 15-29. https://doi.org/10.1023/B:JOCD.0000036703.83885.5d

Sicoli, L. A., & Steele Walters, J. (1997). *Career choices: A step-by-step career decision making workbook*. London, ON: Student Development Centre, University of Western Ontario.

Singaravelu, H. D., White, L. J., & Bringaze, T. B. (2005). Factors influencing international students' career choice: A comparative study. *Journal of Career Development*, *32*(1), 46-59. http://doi.org/10.1177/0894845305277043

Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(4), 249-275. https://doi.org/10.1207/S15327965PLI1304_01

Thrift, M. M., Ulloa-Heath, J., Reardon, R. C., & Peterson, G. W. (2012). Career interventions and the career thoughts of Pacific Island college students. *Journal of Counseling & Development*, *90*(2), 169-176. https://doi.org/10.1111/j.1556-6676.2012.00022.x

Wood, S. E. (2022). *Exploring hope and its impact on the career success of senior military officers* [Unpublished doctoral dissertation]. Grand Canyon University.

Yoon, H. J., Chang, Y.-L., Sadique, F., & Al Balushi, I. (2021). Mechanisms for hopeful employee career development in COVID-19: A Hope-action theory perspective. *Advances in Developing Human Resources*, *23*(3), 203-221. https://doi.org/10.1177/15234223211017848

Yoon, H. J., In, H., Niles, S. G., Amundson, N. E., Smith, B. A., & Mills, L. (2015). The effects of hope on student engagement, academic performance, and vocational identity. *Canadian Journal of Career Development*, *14*(1), 34-45. https://doi.org/10.53379/cjcd.2015.176

Yorio, P. L., & Ye, F. (2012). A meta-analysis on the effects of service-learning on the social, personal, and cognitive outcomes of learning. *Academy of Management Learning and Education*, *11*(1), 9-27. https://doi.org/10.5465/amle.2010.0072