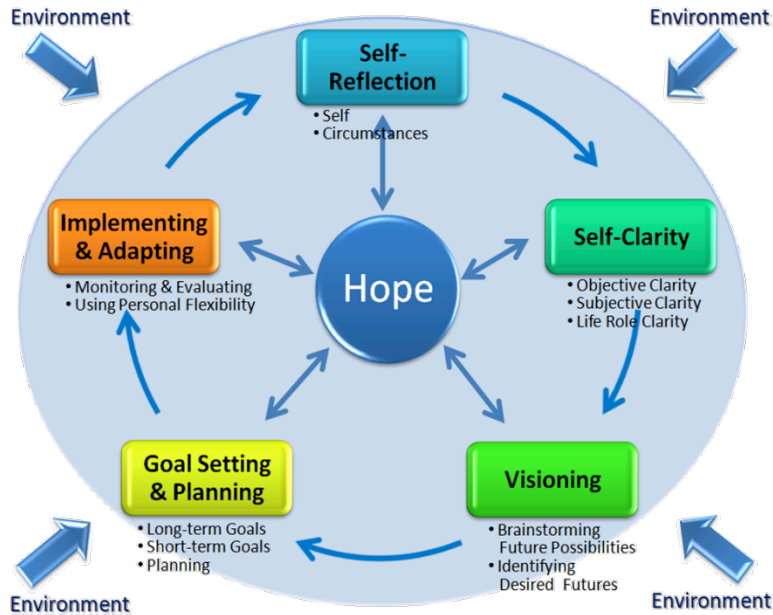


Hope-Centered Career Development for University/College Students



Final Project Report

The Hope-Centered Career Research Team Between the University of British Columbia and The Pennsylvania State University



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Table of Contents

Introduction.....	2
Project Goals and Objectives.....	2
Overview of Process.....	3
Phase I. Quantitative Research.....	4
Purpose and Research Questions.....	4
Method.....	5
Participants.....	5
Measures.....	6
Data analysis.....	7
Findings.....	8
RQ 1. Baseline measure of the HCCI.....	8
RQ 2. Role of hope in school engagement, vocational identity, and academic performance.....	9
Discussion.....	12
Phase II. Qualitative Research.....	14
Purpose.....	14
Method.....	14
Data Collection.....	14
Data Validation.....	14
Participants.....	15
Inclusion criteria.....	15
Response rate.....	15
Demographics.....	16
Barriers.....	16
Findings.....	16
Helping factors.....	17
Hindering incidents.....	20
Discussion.....	24
Project Challenges and Limitations.....	25
Project Challenges.....	25
Limitations.....	25
Conclusions.....	26
Acknowledgement.....	27
References.....	28
Appendix A: Phase I Survey Instrument.....	30
Appendix B: Phase II Interview Protocol.....	36

Introduction

Hope plays a central role in one's career as well as life. According to Snyder (2002), hope is defined as "the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways" (p.249). Niles and Amundson (in Niles, Amundson & Neault 2011) developed the Hope-Centered Model of Career Development (HCMCD) using hope as a central construct in the model. The HCMCD integrated and synthesized three theories based on Bandura's (2001) human agency theory, Hall's (1996) career metacompetencies, and Snyder's (2002) hope theory. Further development (Niles, Yoon, Balin & Amundson, 2010) focused on the creation of an inventory based on the model, the end result being the Hope-Centered Career Inventory (HCCI). The current research project is an attempt to explore the application of the model and the use of the HCCI with a university population. Research has indicated that highly hopeful individuals seem to achieve higher performance in their academic studies and their career, and in general are likely to be more satisfied with their life and career (Niles, In, Chen, Su, deShield, & Yoon, in press).

The central question for the quantitative part of this study was directed towards an exploration of how a sense of hopefulness (as measured by the HCCI) for college/university students intersects with critical variables such as student engagement, academic performance, and vocational identity. The qualitative part of the study was more specific and looked at students who scored very high on hope, but also indicated that they had some challenges in their life. The Enhanced Critical Incident Method (Butterfield, Maglio, Borgen & Amundson, 2009) was used as the methodology for the qualitative research interview.

Project Goals and Objectives

This project aimed to understand the role and contributors of career hope in college settings in Canada and the United States. Specifically, we used the Hope-Centered Career Inventory (HCCI) with a group of college students in both Canada and the US to get a baseline perspective with respect to how hope plays a part in their career development activity and how hope contributes to career outcomes, such as school engagement, grades, and career aspirations. The findings from this project will hopefully lay a foundation for better understanding the career intervention process for working with college/university students.

The specific objectives were:

- 1) To understand the baseline of college students' career hope using the Hope-Centered Career Inventory (HCCI) and create a career hope profile;
- 2) To understand the effects of having hope-centered competencies on school engagement, academic performance, and vocational identity; and
- 3) To understand coping and hindering factors for shaping students' hope through a series of in-depth interviews with students with high hope and high perceived barriers.

Overview of Process

We implemented this project in two phases. In Phase I, we first administered a survey consisting of the HCCI, student engagement, vocational identity, perception of barriers, and academic performance to college/university students from four institutions in British Columbia (Canada) and Pennsylvania (United States). After collecting data from the survey, we identified students with high hope and high perceived barriers who will be participants of our Phase II study. We explored the enablers and hindering factors of hope with 15 students using Enhanced Critical Incident Technique (Butterfield et al., 2005).

The following indicates tasks completed in each phase:

Phase I: Quantitative study.

1. Submitted institutional ethics review proposals (Consent forms, Questionnaire, interview protocol, etc.)
2. Ethics review approval
3. Finalized target institutions and methods of data collection
4. Collected data from 1765 students in four institutions in Canada and the United States
5. Coded and cleaned the data
6. Analyzed the data using SPSS and Lisrel
7. Provided incentives for participation
8. Wrote up findings

Phase II: Qualitative Study

9. Selected 46 students who met our inclusion criteria
10. Trained three interviewers for Phase II
11. Conducted one-on-one interviews with 15 participants
12. Provided incentives for participation
13. Transcribed the interviews
14. Analyzed the data
15. Cross-checked the findings with the participants
16. Wrote up findings

Follow-up

17. Presented findings at Cannexus 2013
18. Will present findings at the National Career Development Association (NCDA) conference
19. Will publish findings in the Canadian Journal of Career Development

Phase I. Quantitative Study

Purposes and Research Questions

We had two main purposes for Phase I. First, we aimed to establish the baseline scores of the Hope-Centered Career Inventory (HCCI) of college/university students in Canada and the US, in order to guide practitioners to use the HCCI effectively when working with students. It is critical to have such norm scores, as they can be used to determine where each student is positioned compared to a group of their peers in terms of the level of hope-centered career competencies. In turn, it will better enable for student to set up their personal developmental plan.

Second, we aimed to explore the role of hope in relation to variables such as school engagement, vocational identity, and academic performance. There have been studies showing that high hope is associated with positive outcomes of job and academic performance, engagement, job satisfaction, career development (Niles, In, Chen, Su, deShield, & Yoon, In Press). In this study we were specifically interested in whether hope positively affects student engagement, vocational identity, and academic performance in a college/university setting. In addition, we wanted to explore the mediating role of student engagement for hope as a predictor of vocational identity and academic performance.

Accordingly, we developed research questions and relevant hypotheses to guide this Phase I research.

Research question 1. What is the baseline measure of the HCCI in Canada and the United States?

Research question 2. What are the relationships among hope, school engagement, academic performance, and vocational identity?

H1. A more hopeful student is more likely to engage in school than a less hopeful student.

H2. Given the effect of hope, a more engaged student in school is more likely to achieve better academic performance than a less engaged student in school.

H3. Given the effect of hope, a more engaged student in school is more likely to develop a higher sense of vocational identity than a less engaged student in school.

H4. Hope is expected to affect academic performance and vocational identity through its effect on school engagement.

Method

Participants.

We gathered data from four institutions, two in Canada (The University of British Columbia and Thompson River University) and two in the United States (The Pennsylvania State University and The Pennsylvania College of Technology) using an electronic survey. Initially, we gathered an initial set of data with 1756 cases. Based on the patterns of correlations among variables according to groups divided by completion time, we deleted cases of participants who responded to the survey in 4.27 minutes (top 2%) and who took more than 63.10 minutes (bottom 2%). For example, the top 2% group in terms of completion time, exhibited .90 or higher correlations across all HCCI variables, which indicates that they might not have taken the survey seriously. After deleting 4% of the initial dataset (71 cases), we retained 1685 cases (see Table 1 for demographics information).

Table 1

Demographics of Participants

School	Total (n)	Gender (%)		Race (%)		Year in School (%)	
		Female	Male	Caucasian	Visible Minorities	1st, 2nd year	Above 2nd year
UBC(CA)	447	74.3	25.7	34.9	65.1	41.2	58.8
TRU(CA)	229	71.2	28.8	84.7	15.3	70.3	29.7
PSU(US)	643	64.1	35.9	79.8	20.2	94.6	5.4
PCT(US)	366	50.8	49.2	94.3	5.7	56.6	43.4
Total	1685	64.9	35.1	71.7s	28.3	68.8	31.2

Of the 1685 participants, 676 are from Canada, and 1009 are from the United States. Overall, the data consisted of 64.9% female and 35.1 % males, 71.9% were Caucasians and 28.3% were visible minorities; there were 68.8% first and second year students and 31.2% third year and above. It is noteworthy that the demographic mix of the institutions was very different from the one another. For example, UBC data had more visible minority students than Caucasian, PSU data was from mostly first and second year students (94.6%), and PCT data had a balanced gender ratio and there were primarily Caucasian students.

Measures.

The Hope-Centered Career Inventory (HCCI).

The HCCI (Niles, Yoon, Balin, & Amundson, 2010) is a 28-item self-report measure designed to assess the degrees of hope and hope-related career development competencies. The HCCI contains seven subscales that include hope, self-reflection, self-clarity, visioning, goal setting and planning, implementing, and adapting. Each subscale has four items that are rated on a 4-point Likert scale (1 = *definitely false*; 2 = *somewhat false*, 3 = *somewhat true*; 4 = *definitely true*). Higher scores indicate a greater degree of hope-centered career competencies. Sample items are as follows:

- Hope: I am hopeful when I think about my future.
- Self-reflection: I think about what is the common theme among the things I like.
- Self-clarity: I can list at least five things that I am good at.
- Visioning: I often vision my future 2, 5, or 10 years from now.
- Goal setting and planning: I set deadlines to complete my goals.
- Implementing: I work hard to meet my goals even when there are distractions.
- Adapting: I change my plans when needed in order to reach my goals.

Convergent validity was demonstrated by strong correlations between the HCCI and conceptually related constructs such as Bandura's human agency and Snyder's hope. The overall score of the HCCI showed correlation coefficients of .82 with the Assessment of Human Agency (Yoon, 2011), and .74 with the Adult Hope Scale (Snyder et al., 1991) with a sample of college students in a U.S. public university (Niles et al., 2010). With the same sample, the HCCI was also significantly correlated with the Vocational Identity scale (Holland, Daiger, & Power, 1980, $r = .445$) (Niles et al.). The overall pattern of the practical fit indices (for a first-order model) demonstrated a good fit to the data, NNFI=.97, CFI=.98, and RMSEA=.050. Niles et al. (2010) reported the coefficient alpha of .92 for the overall HCCI and .74 to .86 for each subscale.

In this study, the hope subscale was used to measure one's degree of general hope. Niles et al. (2010) reported the coefficient alpha of .82 for the hope subscale. Similar to the overall score of the HCCI, the hope subscale was significantly and positively correlated with the Adult Hope Scale (Snyder et al., 1991; $r = .65$), the Assessment of Human Agency (Yoon, 2009; $r = .55$), and the Vocational Identity Scale (Holland, Daiger, & Power, 1980; $r = .41$), as expected. For the current study, the coefficient alpha for the hope scale was .79.

Student Engagement.

We used common items between the National Survey of Student Engagement (NSSE; Kuh, 2003) and the Community College Survey of Student Engagement (CCSSE; Angell, 2009). NSSE focuses on four-year colleges, while CCSSE was intended for two-year colleges.

However, they share common items for comparisons between the two types of institutions in terms of student engagement. In this research we used 14 common items with behavioral indicators representing three domains, active and collaborative learning (ACL; 6 items), level of academic challenge (LAC; 3 items), and student-faculty interaction (SFI; 5 items) that met our criteria.

Vocational Identity Scale (VIS).

Participants' vocational identity was assessed using the Vocational Identity Scale of the My Vocational Situation (MVS; Holland, Daiger, & Power, 1980). Eighteen true/false items measures the extent to which individuals have a clear sense of their career goals, interests, and talents. Higher scores reflect higher vocational identity. Sample items include "I need to find out what kind of career I should follow," and " Making up my mind about a career has been a long and difficult problem for me." Holland et al. (1980) reported the coefficient alphas ranging from .86 to .89 for the VI scale. Other studies reported that coefficient alphas for the VIS were .84 to .86 for undergraduate students in a large Midwestern University (Scott & Ciani, 2008). Holland, Johnston, and Asama (1993) reported a 1- to 3-month test-retest reliability coefficient of about .75 for the VIS. Holland et al. (1993) summarized correlations between the VIS and various career outcomes (that are found in numerous studies). For example, the VI scale was correlated with career correlated negatively with the Indecision subscale ($r = -.78$) and positively with the Certainty subscale ($r = .60$) of the Career Indecision Scale (Osipow et al., 1976) in college students (Wanberg & Muchinsky, 1992). For the current study, the internal consistency using the Kuder-Richardson formula 20 (KR-20) was .89.

Students' self-reported GPA.

In order to measure students' academic performance, we asked students a question regarding their cumulative GPA on a 4-point scale ($1 = \text{mostly Ds or lower}$; $2 = \text{mostly Cs}$; $3 = \text{mostly Bs}$; $4 = \text{mostly As}$)

Data analysis.

For RQ1, we used SPSS 19.0 to generate descriptive statistics including mean, standard deviation, and percentile scores. In addition we conducted a t-test to see if there are significant statistical differences between Canadian and US data. For RQ2, we used Lisrel 8.80 to test a structural equation model that uses school engagement as a mediator of hope- predicting academic performance and vocational identity.

Findings

RQ 1. Baseline measure of the HCCI.

First, we generated percentile scores for each of hope-centered career competencies in each country (see Table 2 & 3). These tables will be useful for counsellors to interpret students' HCCI results. Second, we conducted a t-test to see if there are significant differences between the Canadian sample and the United States sample, after generating mean and standard deviation of the data set (see Table 4). Interestingly, the United States data demonstrated statistically higher scores in all hope-centered career competencies. Given that demographic characteristics are different between the Canada and the U.S. samples, and the data is collected from only two schools in each country, we should be cautious to draw too many conclusions about these mean score differences between Canada and the U.S. samples. There is a need for further investigation to expand the interpretation.

Mean score of each subscale and overall scores of the HCCI ranged from 3.08 (goal-setting and planning) to 3.39 (adapting) in the Canadian sample, and from 3.19 (goal setting and planning) to 3.52 (visioning) in the U.S. sample. These mean scores above 3.0 suggest that college/university students in both Canada and the United States reported positive views on their levels of hope and hope-centered career competencies on average. In addition, it appears that students are relatively low on setting specific goals and making plans toward goal achievement, compared to other career competencies.

Table 2
Percentile scores of HCCI in Canadian Institutions

	Hope	Self-reflection	Self-clarity	Visioning	Goal setting/ planning	Imple- menting	Adapting	Overall
Perce- ntiles								
10	2.50	2.75	2.50	2.50	2.25	2.43	2.75	2.75
25	3.00	3.00	2.75	3.00	2.75	2.75	3.00	2.96
50	3.25	3.25	3.25	3.50	3.00	3.00	3.50	3.25
75	3.75	3.50	3.50	3.75	3.50	3.50	3.75	3.50
90	4.00	3.75	4.00	4.00	3.75	3.75	4.00	3.75

Table 3
Percentile scores of HCCI in United States Institutions

	Hope	Self- reflection	Self- clarity	Visioning	Goal setting/ planning	Imple- menting	Adapting	Overall
Percentiles								
10	3.00	2.75	2.75	2.75	2.25	2.50	3.00	2.89
25	3.25	3.00	3.00	3.25	2.75	3.00	3.25	3.18
50	3.50	3.50	3.50	3.75	3.25	3.25	3.50	3.43
75	4.00	3.75	3.75	4.00	3.75	3.75	4.00	3.68
90	4.00	4.00	4.00	4.00	4.00	4.00	4.00	3.86

Table 4
Comparison between Canadian Sample and the United States Sample

	Canada (n = 676)		US (n = 1009)		T
	M	SD	M	SD	
HCCI (Overall)	3.23	.38	3.40	.36	-9.12
Hope	3.25	.59	3.50	.49	-8.95
Self-reflection	3.27	.46	3.35	.44	-3.39
Self-clarity	3.19	.55	3.43	.48	-9.18
Visioning	3.34	.55	3.52	.50	-6.66
Goal setting and planning	3.08	.59	3.19	.59	-3.76
Implementing	3.10	.53	3.32	.51	-8.58
Adapting	3.39	.45	3.50	.44	-4.78

RQ 2. Role of hope in school engagement, vocational identity, and academic performance.

In order to answer RQ2, we developed a hypothesized model as depicted in Figure 1. We hypothesized that higher hope, as a driving force, leads to higher GPA and clearer vocational identity through enhanced school engagement. More specifically, we postulated the following three hypotheses. First, we hypothesized that a more hopeful student is more likely to engage in meaningful school activities including collaborative learning, active interaction with instructors,

and hard work on classes than do a less hopeful student. Second, we hypothesized that enhanced engagement in school activities would lead to higher academic achievement represented by GPA. Third, we hypothesized that a student who actively engages in school activities is more likely to develop a higher degree of vocational identity.

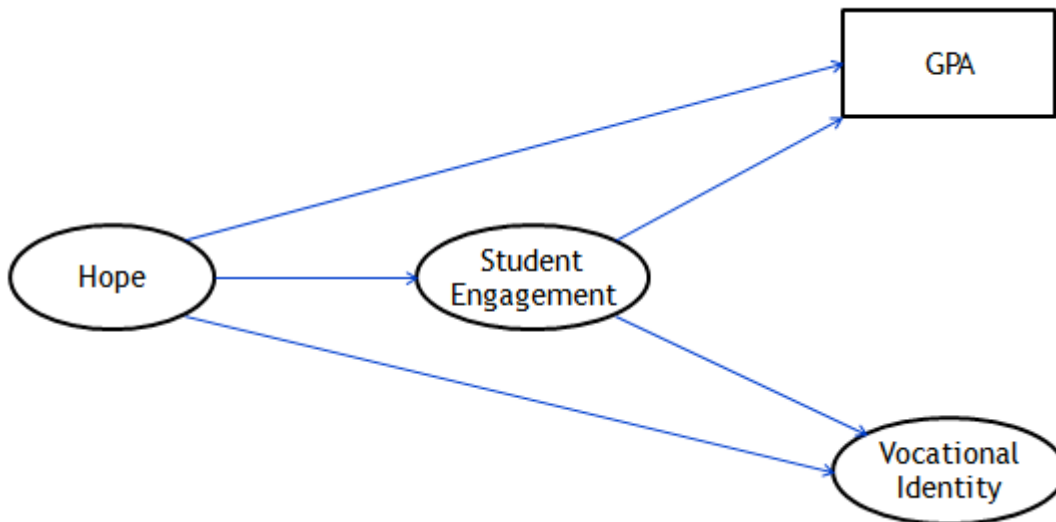


Figure 1. Hypothesized mediation model

The hypothesized mediation model was examined by Structural Equation Modeling (SEM). We controlled for country, age, race, and parental educational level in order to examine pure relationships among hope, student engagement, academic performance (GPA), and vocational identity. The hypothesized model was fitted to the data. The chi-square test was significant, $\chi^2 (df = 67) = 241.252$. The chi-square, however, is known to be sensitive to sample size (Hooper, Coughlan, & Mullen, 2008). That is, the large sample size such as that used in this study ($N = 1685$) yields a significant chi-square based on minor deviations from a perfect fit. Thus, three indices of practical fit were used to determine the quality of model fit: RMSEA (Browne & Cudeck, 1993), RHO (Tucker & Lewis, 1973), and CFI (Bentler, 1990). This hypothesized model produced fit indices of RMSEA = .056, NNFI = .960, CFI = .974. Based on the overall pattern of fit indices, this model was judged to be good (Hu & Bentler, 1999), indicating that the hypothesized model is well represented by the data that we gathered. This enabled us to take a look at regression coefficients, also called as b-weights, within the hypothesized mediation model.

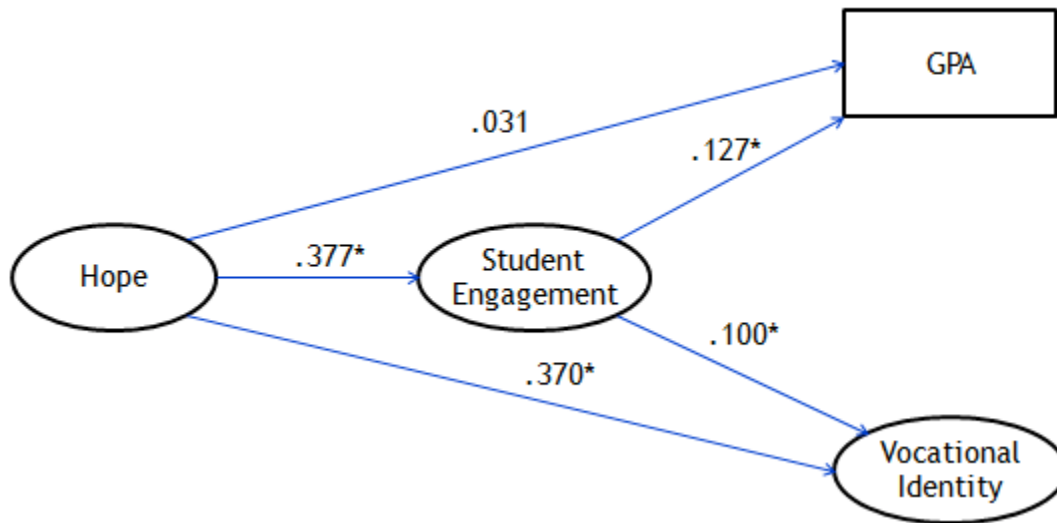


Figure 2. Standardized Parameter Estimates for Mediation Model

Hope predicts both GPA and vocational identity among college/university students.

As indicated in Table 5, the independent variable, hope had significant total effects on both of the dependent variables, vocational Identity and GPA. This indicates that hope had significant effects on vocational Identity and GPA when the mediator, school engagement, was excluded from the model.

Table 5
Total Effects for the Hypothesized Model

IV: Hope	B	SE	β	t
DV1: Vocational Identity	.490	.047	.407	10.498
DV2: GPA	.109	.053	.078	2.072

Note. b = unstandardized coefficient (b-weight), SE = standard error, β = standardized coefficient

Table 6
Regression Weights for the Hypothesized Model

DV \ IV	Hope				School Engagement			
	b	SE	β	T	b	SE	β	t
School Engagement	.360	.036	.377	9.146	-	-	-	-
Vocational Identity	.445	.050	.370	8.854	.126	.050	.100	2.532
GPA	.043	.058	.031	.737	.186	.060	.127	3.073

Note. b = unstandardized coefficient (b-weight), SE = standard error, β = standardized coefficient

School Engagement partially mediates the effect of hope on vocational identity.

Regression weights of the mediation model are presented in Table 6. Consistent with our hypothesis, the path from hope to the mediating variable, school engagement, was statistically significant ($b = .360$, $SE = .036$, $\beta = .377$, $p < .001$). After controlling for hope, the path from school engagement to vocational identity was also statistically significant ($b = .126$, $SE = .050$, $\beta = .100$, $p < .05$). Based on the joint significance rules for mediation (MacKinnon et al., 2002), these results indicate that school engagement was a significant mediator in the relationship between hope and vocational identity. The residual direct effects of hope on vocational identity ($b = .445$, $SE = .050$, $\beta = .370$, $p < .001$) were significant, indicating that school engagement partially mediated the effects of hope on vocational identity.

School Engagement fully mediates the effect of hope on GPA.

When controlling for hope, the path from school engagement to self-reported GPA was also statistically significant ($b = .186$, $SE = .060$, $\beta = .127$, $p < .05$), as expected in the hypothesis. Moreover, the residual direct effect of hope on GPA, not through school engagement, did not reach statistical significance when school engagement was taken into account ($b = .043$, $SE = .058$, $\beta = .031$, $p > .05$). This indicates that school engagement totally mediated the effect of hope on GPA.

Discussion

The norm scores obtained from RQ1 allows career practitioners to administer the Hope-Centered Career Index (HCCI) effectively. The mean scores of HCCI results of students in Canada and the United States differed from each other significantly. However, we are unsure about what accounts for the differences, it is too early to conclude that one country is better than the other in terms of hope-centered career competencies. We need to gather more data from across the countries, both in Canada and the United States to draw such conclusion more confidently and to establish norm scores that can be useful to many other regions in both countries.

The findings from RQ2 expand the hope-related research in the context of career development by examining a mechanism (i.e., school engagement) through which hope predicts vocational identity and GPA among college students. The results of this study confirmed the hypotheses of significant path from hope to school engagement, and significant paths from school engagement to both vocational identity and GPA.

The significant total effects of hope on both vocational identity and GPA suggests that high levels of hope are linked to clear vocational identity and high GPA. Specifically, each standard deviation increase in hope produced a 0.407 standard deviation increase in vocational

identity, showing modest association between the two. Each standard deviation increase in hope produced a 0.078 standard deviation increase in GPA, indicating a weak yet significant relationship between hope and GPA.

The results of the current study support a partial mediating role of school engagement between hope and vocational identity. This suggests that college/university students with higher hope are more likely to engage in meaningful school activities; they, in turn, are more likely to develop a clear understanding of their vocational interests, talents, or goals. More specifically, the results indicate that having hope about one's future motivates college/university students to intentionally interact with instructors, collaborate with peers on school work, and work hard on class preparation and assignments. As students engage in these meaningful school activities, they will likely learn more about their interests, abilities, and/or values, as well as the career opportunities, which eventually leads to the development of vocational identity.

On the other hand, after including school engagement in the model, the significant total effect of hope on vocational identity ($\beta = .407$) was reduced, but remained substantial and statistically significant ($\beta = .370$). In fact, only 9.1% of the total effect of hope on vocational identity was mediated by school engagement. This implies that there may be another process by which hope is linked to vocational identity. Accordingly, it warrants further study on other potential mediating variables. Another possible mediating variable is career exploration activities. Studies have supported that career exploration activities allow students to crystallize their vocational identity (Gushue et al., 2006; Robitschek & Cook, 1999). In demonstrating that more hopeful students are likely to engage in meaningful school activities, it is possible that being hopeful leads students to engage in career exploration activities such as participating in career fairs, doing internships, and taking vocational inventories. This, in turn, may enable the students to develop clear vocational identities.

With regard to the relationships between hope, school engagement, and GPA, the results of this study support a full mediating role of school engagement between hope and GPA. That is, more hopeful college/university students are more likely to engage in meaningful school activities; they, in turn, are more likely to achieve better academic performance. After including school engagement in the model, the significant total effect of hope on GPA ($\beta = .078$) was substantially reduced, not reaching statistical significance ($\beta = .031$). School engagement mediated 60.3% of the total effect of hope on GPA. This suggests that hope indirectly affects students' GPA through enhancing students' school engagement activities.

Taken together, hope seems to play an important role in vocational identity development and, to a lesser degree, academic performance among college/university students both in Canada and the United States. When hope is absent, students may be less likely to engage in diverse school activities; students with a lack of hope also may be less likely to have crystallized vocational identities and to achieve high GPAs. Thus, it is crucial for career practitioners and educators to promote hope in students. Career and school counsellors need to assess and address students' hope as an integral part of career counseling and education. It is necessary to find

strategies and resources in order to enhance hope in students. By fostering hope in students, they can help students engage in valuable school activities, which in turn, help students develop a sense of vocational identity and achieve successful academic performance.

Phase II. Qualitative Research

Purpose and Research Question

The purpose of the qualitative phase of the study was to understand how college and university students in Canada and the United States, in the face of challenges, experience high levels of hope. Specifically, we wanted to know what helps and hinders their experiences of hope?

Method

In this study, we used Enhanced Critical Incident Technique (ECIT), which consists of in-depth, semi-structured interviews that allow for open-ended, clarifying questions. Incidents include antecedent information, detailed description of experiences, and descriptions of the outcomes. ECIT enables researchers to investigate “effective and ineffective ways of doing something, looking at helping and hindering factors, collecting functional or behavioural descriptions of events or problems, examining success and failure, and determining characteristics that are critical to important aspects of an activity or event” (Butterfield et al., 2005, p.476).

Data Collection

All participants completed an informed consent process approved by the Ethics Boards of the respective educational institutions. The primary interviews ranged from 45 to 90 minutes in duration, depending on the responses of the participants. Fifteen interviews were completed with five conducted by telephone and ten conducted in-person. All interviews were audio recorded and handwritten notes were taken. After the preliminary analysis was complete, a second interview was conducted by email in order to provide participants with an opportunity to add, change, clarify or correct their responses.

Data Validation

ECIT involves a number of validation checks. All interviews were audiotaped and analysis was conducted from transcripts to attend to descriptive validity. Interview fidelity was ensured by having an ECIT expert review a select number of transcripts to ensure that the

methodology and interview protocol was followed. Interviews continued until no new items occurred to ensure exhaustion. Because no qualified American interviewer was available to conduct the interviews of Penn State and Penn College students, the U.S. based transcripts were analyzed by a member of the research team who is a U.S. citizen to ensure that an appropriate cultural lens was applied during analysis. A second interview by email was conducted with participants to confirm accuracy of the analysis and allow for additions, deletions or changes in order to attend to descriptive validity. Participation rates of the categories were calculated using the 25% criteria (Borgen & Amundson, 1984) except where items were included to more fully describe the participants' intent and experience. Two experts reviewed the categories to determine utility, surprise & identify any missing items.

Participants

Inclusion criteria.

Participants were selected from the quantitative study who were fluent in English and self-reported the highest level of barriers amongst those who reported the highest level of hope. All of the participants had a score of 4.0 on the HCCI, which is the highest score possible. Participants' self reported barriers using the Perceived Barriers Scale (McWhirter, 1992); scores ranged from 2.81-3.71 on a five-point Likert scale with 1=strongly agree and 5=strongly disagree. A sample of items of the Perceived Barriers Scale include:

- "Money problems are ..*"
 - "Family problems are ...*"
 - "Not being smart enough is ...*"
 - "Not being prepared enough is...*"
 - "My gender is...*"
 - "Relationship concerns are ...*"
- *currently a barrier to my educational aspirations."

Nineteen of 676 representing 2.8% of the Canadian portion of the quantitative sample met the inclusion criteria. From the U.S. portion of the quantitative sample, 27 of 1009 representing 2.6% of the potential qualitative participants met the inclusion criteria.

Response rate.

Fifteen participants were interviewed in total. Seven of the 19 people eligible to participate from the Canadian universities, representing 36.8% of the possible Canadian participants, were interviewed. Eight people in the United States, representing 29.6% of the

possible U.S. sample, chose to participate. It should be noted that these numbers represent a very high response rate relative to the size of the sample.

Demographics.

Amongst the fifteen participants, 5 were from UBC, 2 from TRU, 1 from Penn College, and 7 from Penn State. All were undergraduates in 1st & 2nd year of their current program at the time of the quantitative data collection although for some, they had more years of post-secondary study but had changed majors. Participants represented a diverse range of majors including music, social work, engineering, science, business, arts, geography, golf course management with students considering entering professional programs such as medicine, veterinary sciences, and architecture. Their ages ranged from 18-25 years of age with the average age and modal age being 20. In terms of their grades, 5 reported having mostly A's, 9 reported mostly B's, 1 reported mostly C's. There were 13 females and 2 males in this portion of the study.

During the interviews, participants self-reported the following additional information:

- 7 Canadian Citizens, 6 U.S. Citizens, 1 dual U.S. & another country, and 1 international student who had studied in Canada and the United States.
- 8 Caucasian, 3 Asian, 2 African American, 1 Asian & Caucasian, 1 Middle Eastern
- 14 spoke English as a first language; 1 spoke Mandarin as first language but spoke English fluently
- 1 was married, 14 single
- 2 people had completed careers: 1 military & 1 professional athlete
- 1 person identified as being a member of the LGBT community
- 1 person had step-children

Barriers.

During the interviews, participants identified a range of barriers including: physical and mental health, undiagnosed learning disabilities, sexual, physical, emotional and economic abuse, sexual harassment, financial and housing challenges, parents' divorces, neglect, death of loved ones, intergenerational conflict, body image concerns, and their own expectations and the expectations of others. It should be noted that the total scores on the Perceived Barrier Scale may underrepresent the level of barriers experienced by participants given the severity of some of the barriers they reported during the interviews.

Findings

Having examined all the data, 281 unique incidents were described by participants consisting of 194 helping incidents and 87 hindering incidents. The incidents were then organized into the following helping and hindering factors categories listed and described below. Some of the described incidents related to more than one factor.

Helping factors.

A total of 194 unique helping incidents were reported and separated into fourteen categories, all of which are reported. Eleven categories met the twenty-five percent participation rate established by Borgen and Amundson (1984) while three did not but are included for reasons that will be described in the discussion section. Also, it should be noted that in many examples, the incidents described involved two or more categories.

Table 7

Categories of Helping Factors

Helping Factors	# of participants	% of participants	# of incidents	% of incidents
1. Support	15	100.0	47	24.2
2. Future Goals	11	73.3	20	10.3
3. Role Models	10	66.7	31	16.0
4. Attitude	8	53.3	25	12.9
5. Passion	7	46.7	12	6.2
6. Possibilities and Opportunities	6	40.0	18	9.3
7. Self-efficacy	6	40.0	8	4.1
8. Social/Professional Contribution	5	33.3	10	5.2
9. School	5	33.3	9	4.6
10. Spirituality	4	26.7	5	2.6
11. Refocusing Activities	4	26.7	5	2.6
12. Recognition and Achievement	3	20.0	9	4.6
13. Supporting Significant Others	3	20.0	3	1.5
14. Family Expectations	2	13.3	2	1.0

Support.

Participants received support from family, partners, friends, organizations such as the university, and pets. These sources provided encouragement, financial, and emotional support. Participants also used social media and networking to receive support. One participant stated

"[mom's] just been that strong person for me. And I can call her ... any time. She is really just that voice of reasoning and hope for me."

Future goals.

Participants had future oriented goals including obtaining a degree or going to graduate school. They also had goals of starting careers, starting a family, and being independent. One participant said *"knowing I'm going to school and there will be a change and I can see my life hitting a major goal, that's what is inspiring and hopeful to me ..."*

Role models.

People in participants' lives who have inspired them, such as family, friends, professionals (counsellors) or public figures. One participant reported, *"seeing how positively [working with her] affected my own thoughts and person in life, it really made me want to have that influence on someone else. I really wanted to ... be able to say, 'hey, I helped that one person and I changed their life in some way ..."*

Attitude.

Participants described having beliefs or perspectives involving perseverance and gratitude, an ability to successfully overcome obstacles, and a trust that things will work out as they should. They reported sometimes using self-talk to strengthen their attitude. One participant described the attitude as *"it could be worse"*, while another said *"well there's nothing else you can do, right? You just have to keep going."*

Passion.

Participants talked about having an intense enthusiasm for an academic discipline, a future career, or an activity like caring for children or animals that is personally meaningful. One participant said, *"I really love learning, so ... right now ... I'm learning old English and learning ... different texts from ... the 18th century and all these things about ... linguistics ... I never knew there was so much that came with language and the technicalities ... it's amazing"*. This participant's current career goal is teaching English overseas.

Possibilities and opportunities.

Participants described feeling hopeful about opportunities that already exist such as

Co-operative Education. They also described possibilities as something that could happen in their lives if they tried. For example one participant was hopeful about the possibility travelling independently in Europe while another talked about the possibility of starting a business. One participant described the opportunity to take a university course while still in high school, *“I had hope that I had the grades to do it. I believed in myself that I could, that if I applied, I might as well apply because if you don’t apply you’ll never know. And having hope that it will turn out in the end.”*

Self-Efficacy.

Participants reported having an awareness and knowledge that enabled coping in addition to developing skills that enabled them to act and accomplish goals. One participant reported learning techniques to increase assertiveness and express her feelings and opinions, while another talked about being able to live independently and care for herself. One participant described *“[the counsellor] really helped me build up my confidence and taught me that I could tell people what they’re doing is not right and if I didn’t like it, I had a voice and I could ... voice my opinion.”*

School.

Participants’ experiences in high school or university helped them feel hopeful. Participants reported that these experiences provided them with a sense of belonging, a positive environment, a structured process leading to an outcome such as a degree, and the ability to participate in research and completing projects that are meaningful to them. One participant talked about school in the following way: *“the formality of having school there, the structure, that’s just another thing that keeps me hopeful... I know that there’s an outcome at the end of it.”*

Social and professional contribution.

Participants discussed either making or wanting to make small and large social or professional contributions to make an in the present or in the future. Examples of these contributions including seeing a need and wanting to fill it by pursuing a future career in healthcare, and presently using their skills and knowledge to help others by tutoring students or volunteering. One participant described how helping others by volunteering *“kind of keeps me going and just reminds me every day that I’m working with the girls, that ... this is what I want to be doing, and these are the type of people I want to be working with for the rest of my life.”*

Spirituality.

Participants described experiences involving organized religion that facilitated and maintained feelings of hopefulness. A participant discussed her, *“faith in God ... and knowing that He’s there with me every time ... I struggle or every time there’s something good. So in good times and bad times ... knowing He’s there ... assures me that my future is going to be full of hope”*

Refocusing activities.

Participants reported being able to refocus on themselves and the things that are important to them through activities such as sketching, exercise, or being in nature. These activities enabled them to distract themselves from difficult circumstances and provided opportunities to achieve clarity on direction and goals. One participant said, *“I’m really into photography right now as well.... In a sense it detaches you, your brain is focusing so much on what you’re doing, on that creative drive, that it takes away from anything [negative] that ... is going on... I’ve found it to be like a great escape, ... a great therapy I suppose you could say.”*

Recognition and achievement.

Participants discussed how their skills, talents and efforts were recognized by meaningful people or organizations, which helped them to feel hopeful. Examples include receiving an award, earning good grades, being noticed by teachers and appearing on television.

Supporting significant others.

Participants reported that providing support to significant others including family, intimate partners, and companion animals helped them to feel hopeful because they could see the impact of their care on their loved ones.

Family expectations.

Participants stated that expectations of their families motivated them to persevere and continue working to overcome challenges and achieve goals. One participant described how she wanted to uphold her family reputation, while another described how she wanted to satisfy her parents desire that she obtain a high quality and recognized degree from a respected university which prompted in part her family’s move to Canada.

Hindering incidents.

A total of 87 unique helping incidents were reported and separated into eleven categories, all of which are reported. Six categories met the twenty-five percent participation rate established by Borgen and Amundson (1984), while five did not but are included for reasons that will be described in the discussion section. Also, it should be noted that in many examples, the incidents described involved two or more categories.

Table 8
Categories of Hindering Factors

Hindering Factors	# of participants	% of participants	# of incidents	% of incidents
1. Negative or Unsupportive People	13	86.7	17	19.5
2. Negative Emotions & Cognitions	8	53.3	21	24.1
3. Situations Outside of One's Control	6	40.0	13	14.9
4. Economic and Financial Challenges	5	33.3	10	11.5
5. School	5	33.3	7	8.0
6. Health (mental and physical)	4	26.7	5	5.7
7. Cultural Conflicts	3	20.0	6	6.9
8. Workload	3	20.0	4	4.6
9. Failing	2	13.3	2	2.3
10. Multiple Roles	1	6.7	1	1.1
11. Relationship Breakups	1	6.7	1	1.1

Negative and unsupportive people.

Participants discussed how being around individuals who behave negatively as hindering their experiences of hope. For example they described family, friends, or other people who were ranging from critical or uninterested to absent, neglectful or abusive. They also described people who were disrespectful, cruel, manipulative, or jealous. Furthermore they also talked of individuals who were constantly complaining, wanting to see others fail or did not want or make effort to understand them. One participant describe how *“it was the hardest [when dad said something like] ‘you are definitely not going to get your college fund now.’”*

Negative emotions and cognitions.

Participants reported the following feelings and thoughts as hindering their experiences of hope: fear of failure, fear of disappointing others, pressure to please others, self doubt, negative self talk, rumination, unreasonably high expectations for themselves, uncertainty, reactions to conflicts in values, being overwhelmed, being intimidated by competition, and negative personal evaluations. These feelings and thoughts caused considerable inner turmoil.

One participant said, “I want to be the best I can. And if ... I just ... didn’t go to this thing ... if I prioritize this ... one night maybe I could have gotten this grade and it ... could have been the determining factor ... because you had a 1% higher in your average overall and then that got you into the program ... So many people say, ... ‘Dude, ... you have such a solid ... extracurricular life, you have ... a solid portfolio.’ I’m sure ... blah, blah, blah ... But I don’t know, there could be a dozen other people who have just as many extracurriculars, just as good a portfolio, but maybe have that one little factor, like maybe they had an 80 average versus a 75 average and that’s what made [the department] take them. And so ... I definitely discourage myself sometimes.”

Situations outside of one’s control.

Participants described negative and or unexpected situations that they could not control and hindered their experiences of hopefulness. Examples included: unexpected eviction from their home, the state of the environment, being bullied, social and political concerns including religious freedom and corruption, negative consequences of the NCAA ruling regarding the Penn State sexual abuse case, and parents’ divorces. One person said, “I’m a really planned, meticulous person, ... I usually have my life planned out three months in advance, so the entire idea of the uncertainty of the future definitely did add in to the removal of hope”.

Economic and financial challenges.

The state of the US Economy, tuition increases, and unexpected costs contributed to participants feeling less hopeful. Furthermore, participants from Penn State discussed how the financial impact as a result of the \$60 million US in fines, the ban from playing in football bowl games imposed by the NCAA, the loss of scholarships, other penalties and the anticipated loss of university and community revenue hindered their feelings of hopefulness. During one interview, a participant said,

Participant: “they just raised tuition and with everything that has ... been happening at Penn State, I can only imagine it’s going to go up more ... Plus it affects how many people will come into town and I’m a waitress. It actually affects my income...”

Interviewer: “because if they can’t play football, people don’t come to the football games ...”

Participant: “to the games, and that’s where I make all my money. Because I make \$2.80 an hour, I think, plus tips. Maybe \$2.83 or something. It’s minimum wage for waiters and waitresses, but it’s not nice if I don’t have any tables.

School.

Participants discussed the effect of poor instruction, disinterested, unhelpful and unempathic faculty, and grades as having a deleterious impact on their feelings of hopefulness. *“Sometimes when I go to talk to the professor and try to figure [something] out, it's like the professor doesn't quite get it either ... like with my biology class ... it felt like some professors in my science majors, there's a few of them that seem like they're not very personable. So when you're trying to talk to them it's like they can't get down to your level. And so it makes you ... frustrated.”*

Health.

Participants described issues related to mental and physical health including injuries and depression as negatively impacting their experiences of hope. One person stated, *“I used to be really active and then I got injured and I went into a depression and then I just started eating and I haven't been able to get back to what I was ...”* Another participant talked about how her multiple injuries negatively impacted her ability to attend classes: *“if I've been sitting in class for a long time they will start to hurt and everything and then I'll be concentrating more on the pain than class ... I have medicine for it but I can't take those otherwise I would be drooling and passed out in class.”*

Workload.

Participants who were attending university full time while also working, reported difficulties in maintaining their hopefulness in the face of significant levels of work and multiple, competing deadlines under time pressures.

Cultural conflicts.

Participants discussed how family intergenerational expectations and acculturation issues affected them. One participant reported difficulties in expressing and communicating accurately due to cultural and language differences. Another participant described how the differences between military and civilian culture hindered her feelings of hope.

Failing.

Participants reported that effort/reward mismatch negatively impacted their feelings of hope. Specifically they spoke about trying their best and still succeeding at their goals.

Multiple roles.

One person reported described how the different roles she plays in her and her family's life hinders her feelings of hopefulness. She said, *"I also have a lot going on in my home life with my husband and my husband's family...He has kids, so I'm a wife, I'm a step-mother and I'm a student. And it gets kind of frustrating sometimes...if I have a lot of homework and everything but we have the kids and stuff ... I have to try to separate ... homework and spending time with the kids."*

Relationship breakups.

One participant recounted how the end of a romantic relationship negatively impacted her feelings of hopefulness.

Discussion

As far as we know, there is no published research investigating what helps and hinders undergraduate students with high levels of hope relative to high levels of self-reported barriers. For this reason, it possible to consider most of the findings in Phase II as unique.

The strongest pattern that emerged from the findings is the positive and negative impact of relationships on experiences of hope. During the course of the interviews, every participant identified either receiving or giving support to others, role models, and/or positive school interactions as positively affecting their experiences of hope. Conversely, 87% of the participants cited negative relationships as having a deleterious impact on their experiences of hope based on interactions with either negative and unsupportive people, relationship breakups or unsupportive experiences with instructors.

Another significant theme that emerged was the influence of personal factors including internal states and external events on individual's experiences of hope. In this theme, the internal factors that affected hope were attitude, passion, self-efficacy, negative emotions and cognitions and mental health. While only eight participates endorsed "attitude" as a helping factor, we observed during the interviews that all participants demonstrated these attitudes and the ability to positively reframe negative experiences. The external factors that affected hope included activities that helped the participants refocus and redirect their energy in more positive directions, the participation in school activities which generated a sense of belonging, and physical injuries that limited their abilities to fully engage in desired activities and therefore hindered their feelings of hopefulness. A personal factor that could be considered both internal and external was spirituality which included being involved in organized religion and praying, along with upholding values and beliefs that were consistent with their spiritual practice.

Another theme that emerged was the role of the future on impacting participants' experiences of hope. Falling into this general theme includes future goals, possibilities and opportunities, social and professional contributions, and the uncertainty of the economy.

Finally, another theme that emerged was the impact of school and its interaction with different demands in participants' lives including workload and multiple roles

We included the factors that were reported by less than 25% of the participants to more fully and accurately reflect the experiences of the participants. It is possible that these factors would meet the required participation rate if there were more participants in the study who were older and/or more culturally diverse. For example, the participant who endorsed multiple roles was the only married participant and the only one with children. It is possible if the study was conducted again with an older cohort that included more married individuals or parents, we may see more individuals reporting more role conflicts. Additionally, had the sample been even more culturally diverse, we may have seen additional responses indicating cultural conflicts or family expectations impacting on the individuals' experiences of hope. Furthermore given that many participants cited factors that were related to parents divorcing, it may be possible that with an older cohort, we may find relationship breakups may have a higher frequency of responses. These outlier categories suggest a need for further research for had we interviewed more participants or different cohorts of participants, different overarching themes may have emerged.

A final observation of the findings was the impact of the situation at Penn State which impacted the students who attended that university. Research is a snap shot of a particular time at a particular location, and in this the NCAA made its announcement regarding the child sexual abuse case at Penn State on July 22, 2012. Five of the seven interviews of Penn State students were conducted July 26 -28. It was a very controversial and widely discussed topic of conversation. Three of the five participants interviewed during that three period identified the scandal and its impact as having a role on hindering their feelings of hopefulness.

Project Challenges and Limitations

Project Challenges

Setting too aggressive of a timeline

With not having direct access to the sample population in Canada and having to identify and work collaboratively with partners, more time was needed for the project. If we had had more time, we could have increased the sample sizes for both the quantitative and the qualitative components, potentially yielding more robust results.

Limitations and Recommendations

There are several limitations to this study. With regard to Phase I, it is important to acknowledge that this study used cross-sectional data, so it is difficult to draw causal

conclusions. Future research needs to draw upon causal research designs to rule out confounding factors and draw causal conclusions. There is also the need for longitudinal studies examining the roles of hope and school engagement in career and academic development among college/university students. Some studies have shown the reciprocal relationships between hope and school engagement (Van Ryzin, 2011) as well as hope and vocational competency (Wandeler & Matthew, 2011). The possibility of reciprocal relationships among hope, school engagement, and career/academic variables could be considered in future research.

In addition, the variables were measured using self-report measures; thus, this may introduce potential limitations of social desirability and mono-method bias. Future research could use methods of measurement other than self-report, such as actual GPA data, dropout rates, or observations. It is also necessary to explore a wider range of career and academic-related variables beyond the vocational identity and GPA.

With regard to Phase II, another possible limitation to consider is that some interviews were conducted in person and others were conducted by phone. It is difficult to know if this change in procedure affected the quality of the interviews and therefore the findings.

For both Phase I and Phase II, the participants were limited to the four institutions in Canada and the United States. For the Canadian portion of the samples, participants were recruited using a list of students who had previously accessed career services at their respective universities. For Phase I the majority of participants were Caucasian, and for both phases the majority were female, and first- and second- year students. As a result, the generalizability of the findings to other populations and institutions is limited. Replicating this study with diverse populations is necessary.

Our overall recommendation for both Phase I and Phase II is to replicate the study with more diverse populations, such as undergraduate students with high barriers and low hope, older workers, graduate students, and people who are unemployed. Although we obtained a diverse sample amongst the fifteen participants in Phase II, we suggest that future research might examine the impact of culture on experiences of hope. Thusly using more sites for data collection is recommended.

Conclusions

The quantitative data pointed to the following conclusions:

1. The results of this study confirmed the hypotheses of a significant pathway from hope to school engagement, and significant pathways from school engagement to both vocational identity and GPA.
2. The significant total effects of hope on both vocational identity and GPA suggests that high levels of hope are linked to clear vocational identity and high GPA.
3. The results also support a full mediating role of school engagement between hope and GPA.

The qualitative data pointed to the following conclusions:

1. The strongest pattern that emerged from the findings was the positive and negative impact of relationships on experiences of hope.
2. An important general theme that emerged was the influence of personal factors including internal states and external events on individual's experiences of hope. The internal factors that affected hope were attitude, passion, self-efficacy, negative emotions and cognitions and mental health. The external factors that affected hope included activities that helped the participants refocus and redirect their energy in more positive directions, the participation in school activities which generated a sense of belonging, and physical injuries that limited their abilities to fully engage in desired activities and therefore hindered their feelings of hopefulness.
3. Another theme that emerged was the role of the future on impacting participants' experiences of hope. Falling into this general theme includes future goals, possibilities and opportunities, social and professional contributions, and the uncertainty of the economy.
4. Finally, another theme that emerged was the impact of school and its interaction with different demands in participants' lives including workload and multiple roles

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Our Sponsor:

References

- Angell, L. R. (2009). Construct validity of the community college survey of student engagement (CCSSE). *Community College Journal of Research and Practice*, 33(7), 564–570. doi:10.1080/10668920801901217
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1–26. doi:10.1146/annurev.psych.52.1.1
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Borgen, W. A., & Amundson, N. E. (1984). *The experience of unemployment*. Scarborough, ON: Nelson.
- Browne, M.W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K.A. Bollen & J.S. Long (Eds.) *Testing structural equation models*. Newbury Park, CA: Sage, pp. 136-162.
- Butterfield, L. D., Borgen, W. A., Amundson, N. E., & Maglio, A. T. (2005). Fifty years of the Critical Incident Technique: 1954-2004 and beyond. *Qualitative Research*, 5, 475-497. doi: 10.1177/1468794105056924
- Butterfield, L., Maglio, A., Borgen, W., & Amundson, N. . (2009). Using the enhanced critical incident technique in counselling psychology research. *Canadian Journal of Counselling*, 44, 265-282.
- Gushue, G. V., Scanlan, K. R. L., Pantzer, K. M., & Clarke, C. P. (2006). The relationship among support, ethnic identity, career decision self-efficacy, and outcome expectations in African American high school students applying social cognitive career theory. *Journal of Career Development*, 33(2), 112-124. Doi: 10.1177/0894845306293416.
- Hall, D. T. (1996). Protean careers of the 21st century. *The Academy of Management Executive*, 10(4), 8–16.
- Holland, J. L., Daiger, D., & Power, P. G. (1980). *My vocational situation: Description of an experimental diagnostic form for the selection of vocational assistance*. Palo Alto, CA: Consulting Psychologists Press.
- Holland, J.L., Johnston, J.A., & Asama, N.F. (1993). The Vocational Identity Scale: A diagnostic and treatment tool. *Journal of Career Assessment*, 1, 1-12.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Kuh, G. D. (2003). What we're learning about student engagement from NSSE: Benchmarks for effective educational practices. *Change*, 35(2), 24-32.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G. & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7(1), 83-104.

- McWhirter, E. (1997). Perceived barriers to education and career: Ethnic and gender differences. *Journal of Vocational Behavior*, 50(1), 124-140.
- Niles, S. G., Amundson, N. E., & Neault, R. (2011). *Career flow: A hope-centered approach to career development*. Boston, MA: Pearson.
- Niles, S. G., In, H., Chen, F., Su, N., deShield, S., & Yoon, H.J., (In Press). Elevating hope in career development theory and practice. *Career Development Quarterly*.
- 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 & Guidance Journal*, 4(34), 101-108.
- Osipow, S. H., Carney, C. G., & Barak, A. (1976). A scale of educational-vocational undecidedness: A typological approach. *Journal of Vocational Behavior*, 9, 233–243. doi:10.1016/0001-8791(76)90081-6
- Robitschek, C., & Cook, S. W. (1999). The Influence of Personal Growth Initiative and Coping Styles on Career Exploration and Vocational Identity. *Journal of Vocational Behavior*, 54(1), 127-141. doi:10.1006/jvbe.1998.1650
- Scott, a. B., & Ciani, K. D. (2008). Effects of an Undergraduate Career Class on Men's and Women's Career Decision-Making Self-Efficacy and Vocational Identity. *Journal of Career Development*, 34(3), 263-285. doi:10.1177/0894845307311248
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13, 249-275. doi: 10.1207/S15327965PLI1304_01.
- Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, L. M., Sigmon, S. T., et al. (1991). The will and the ways: Development and validation of an individual-differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570–585.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10.
- Van Ryzin, M. J. (2011). Protective Factors at School: Reciprocal Effects Among Adolescents' Perceptions of the School Environment, Engagement in Learning, and Hope. *Journal of Youth and Adolescence*, 40(12), 1568-1580. doi:10.1007/s10964-011-9637-7
- Yoon, H. J. (2011). *The development and validation of the assessment of human agency employing Albert Bandura's human agency theory*. Unpublished doctoral dissertation, The Pennsylvania State University, University Park.
- Wanberg, C. R., & Muchinsky, P. M. (1992). A typology of career decision status: Validity extension of the vocational decision status model. *Journal of Counseling Psychology*, 39, 71–80.
- Wandeler, C. A. & Bundick, M. J. (2011). Hope and self-determination of young adults in the workplace. *The journal of positive psychology*, 6 (5), p. 341. Doi: 10.1080/17439760.2011.584547

Appendix A: Phase I Survey Instrument

Instructions

- This questionnaire asks you about your thoughts, feelings, and attitudes about yourself and school.
- There are NO right or wrong answers.
- We would like you to answer all the questions as *accurately* and as *honestly* as you can.
- Give *only one answer* for each question.
- If you find there is no answer exactly fitting you, please answer with the response that fits you best.
- Please *answer ALL items*, even if you are not sure.

Section I.

These questions are about you and your background.

1. How old are you? _____ years old
2. Are you: ₁ female ₂ male
3. Year in school
₁ Freshman
₂ Sophomore
₃ Junior
₄ Senior
₅ Other (Please Specify) _____
4. Which best describe you?
₁ Asian
₂ Hispanic, regardless of race
₃ Black, not of Hispanic origin
₄ White, not of Hispanic origin
₅ Pacific Islander
₆ Aboriginal/First Nations
₇ Other
5. My grades up to now at this institution have been ...
₁ Mostly Ds or lower ₂ Mostly Cs ₃ Mostly Bs ₄ Mostly As
6. What is the highest level of education that your parent(s) completed? (Mark one box per column.)
Father Mother

<input type="checkbox"/> ₁	<input type="checkbox"/> ₁	Did not finish high school
<input type="checkbox"/> ₂	<input type="checkbox"/> ₂	Graduated from high school
<input type="checkbox"/> ₃	<input type="checkbox"/> ₃	Attended university but did not complete degree
<input type="checkbox"/> ₄	<input type="checkbox"/> ₄	Completed an associate's degree (A.A., A.S., etc.)
<input type="checkbox"/> ₅	<input type="checkbox"/> ₅	Completed a bachelor's degree (B.A., B.S., etc.)
<input type="checkbox"/> ₆	<input type="checkbox"/> ₆	Completed a graduate degree (M.A., M.S., Ph.D., J.D., M.D., etc.)

Section II.

For each item, rate how true each of the statements is for you using the response scale shown below.
(CHECK ONE, ANSWER ALL ITEMS)

	Definitely False	Somewhat False	Somewhat True	Definitely True
7. I am hopeful when I think about my future.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
8. I take time to think about my thoughts and feelings.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
9. I can describe who I am.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
10. I often dream about my future.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
11. I set deadlines to complete my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
12. I keep myself focused so that I can complete my plans.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
13. I am willing to try new experiences that might help me to achieve my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
14. I believe my dreams will come true.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
	Definitely False	Somewhat False	Somewhat True	Definitely True
15. I think about what is the common theme among the things I like.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
16. I can list at least five things that I am good at.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
17. I often vision my future 2, 5, or 10 years from now.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
18. I often list things that I need to do to reach my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
19. I work hard to meet my goals even when there are distractions.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
20. I change my plans when needed in order to reach my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
21. I think positively about my future.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
22. I think about things that have happened to me.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
23. I understand what is expected of me in my life role (e.g., as a student, a son/daughter, a parent, a worker, etc.).	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
24. I often imagine possible future events in my life.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

	Definitely False	Somewhat False	Somewhat True	Definitely True
25. I make a list of things that I want to complete.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
26. I take the next steps to meet my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
27. I am open to change that might improve my chance to reach my goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
28. I try to stay hopeful even when I face difficulties in my life.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
29. I often think about how my situation affects me.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
30. I can clearly describe my strengths.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
31. I spend time thinking about what will happen in my future.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
32. I make a plan before taking action.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
33. I take action once I have clear goals.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
34. I am open to making changes to my plans when necessary.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

Section III.

In your experiences at this university during the current school year, about how often have you done each of the following?

	Very often	Often	Some- times	Never
35. Asked questions in class or contributed to class discussions.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
36. Made a class presentation.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
37. Prepared two or more drafts of a paper or assignment before turn it in.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
38. Worked on a paper or project that required integrating ideas or information from various sources.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
39. Come to class without completing readings or assignments.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
40. Worked with other students on projects during class.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
41. Worked with classmates outside of class to prepare class assignments.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
42. Tutored or taught other students (paid or voluntary)	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
43. Participated in a community-based project as a part of a regular course.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
	Very often	Often	Some- times	Never

44. Used the internet or instant messaging to work on an assignment	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
45. Discussed grades or assignments with an instructor.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
46. Talked about career plans with an instructor or advisor.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
47. Discussed ideas from your readings or classes with instructors outside of class.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
48. Received prompt feedback (written or oral) from instructors on your performance.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
49. Worked harder than you thought you could to meet an instructor's standards or expectations.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
50. Worked with instructors on activities other than coursework.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
51. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
52. Had serious conversations with students of a different race or ethnicity other than your own.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
53. Had serious conversations with students who differ from you in terms of their religious beliefs, political opinions, or personal values.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
54. Skipped class.	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁

Section IV.

Please indicate how much you desire to achieve the following in the future.

With regard to my career, I desire to...	Very Low	Low	About fifty-fifty	High	Very high
55. have a job that pays well.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
56. have a career that I enjoy doing.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
57. finish whatever education or training is necessary to get a job that I want.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
58. have a job that allows me to live the lifestyle that I want.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
59. have a career that is meaningful to me.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
60. do what I am passionate about at work.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
61. have a job that I can do exceptionally well.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Section V.

For each item below, finish the sentence with: "... **currently a barrier to my educational aspirations.**"
 For example, Item 62 would read: "**Money problems are ... currently a barrier to my educational aspirations.**"

	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
62. Money problems are ... "currently a barrier to my educational aspirations."	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
63. Family problems are ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
64. Not being smart enough is ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
65. Negative family attitudes about university are ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
66. Not fitting in at school is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
67. Lack of support from teachers is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
68. Not being prepared enough is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
69. Not knowing how to study well is ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
70. Not having enough confidence is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
71. Lack of support from friends to pursue my educational aspirations is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
72. My gender is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
	Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
73. People's attitudes about my gender are ... "currently a barrier to my educational aspirations."	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
74. My ethnic background is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
75. People's attitudes about my ethnic background are ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
76. Childcare concerns are ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
77. Lack of support from my "significant other" to pursue education is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
78. My desire to have children is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
79. Relationship concerns are ...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
80. Having to work while I go to school is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
81. Lack of role models or mentors is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅
82. Lack of financial support is...	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Section VI.

Try to answer all the following statements as mostly TRUE or mostly FALSE. Click the answer that best represents your present opinion.

In thinking about your present job or in planning for an occupation or career	True	False
83. I need reassurance that I have made the right choice of occupation.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
84. I am concerned that my present interests may change over the years.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
85. I am uncertain about the occupations I could perform well.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
86. I don't know what my major strengths and weaknesses are.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
87. The jobs I can do may not pay enough to live the kind of life I want.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
88. If I had to make an occupational choice right now, I am afraid I would make a bad choice.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
89. I need to find out what kind of career I should follow.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
90. Making up my mind about a career has been a long and difficult problem for me.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
91. I am confused about the whole problem of deciding on a career.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁

In thinking about your present job or in planning for an occupation or career	True	False
92. I am not sure that my present occupational choice or job is right for me.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
93. I don't know enough about what workers do in various occupations.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
94. No single occupation appeals strongly to me.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
95. I am uncertain about which occupation I would enjoy.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
96. I would like to increase the number of occupations I could consider.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
97. My estimates of my abilities and talents vary a lot from year to year.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
98. I am not sure of myself in many areas of life.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
99. I have known what occupation I want to follow for less than one year.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁
100. I can't understand how some people can be so set about what they want to do.	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁

Email Address

101. If you want to see your results or want to be considered for a drawing, please let us know your email address: _____

Thank you for completing this survey.

Appendix B: Phase II Interview Protocol
CIT Interview Guide:
Hope-Centered Career Development with University Students

Participant #: _____

Date: _____

Interview Start Time: _____

1. Contextual Component

Preamble: As you know, the hope-centered research team is exploring the ways in which students remain hopeful in challenging times. The purpose of this interview is to understand important contributors and hindering factors that make you remain hopeful or less hopeful under challenging situations.

a. As a way of getting started, perhaps you could tell me a little bit about your school situation (year in school, major, etc.).

b. You were chosen to participate in this study because you have a high level of hope despite of certain barriers. What does “hope” mean to you?

2. Critical Incident Component 1

Transition to Critical Incident questions: In the survey that you answered before, you indicated that you stay hopeful although you have some barriers to your career and/or education. Think about a time when you experienced a high level of challenge that involved multiple barriers to your education and/or career.

- a. Tell me what happened, step-by-step from the beginning, as completely as possible.

(Interviewer Note: based on participant's response, start with either b or c whichever makes sense to you. However, make sure that you ask the remaining question to see if the interviewee gives a different answer. It is totally okay if he/she says, "the same as before." You can stop there. This is to see whether or not contributors to global hope and career hope are different.)

- b. With this incident in mind, what has been most important to you in helping you feel hopeful in your life? (**Global hope**)
(Probes: What was the incident/factor? How did it impact you? What did it mean to you? Can you give me a specific example? In what ways did the incident/factor help you? What would have been different if you had not had that?)

- c. With this incident in mind, what has been most important to you in helping you feel hopeful in your career? (**Career hope**)
(Probes: What was the incident/factor? How did it impact you? What did it mean to you? Can you give me a specific example? In what ways did the incident/factor help you? What would have been different if you had not had that?)

4. Summary of the Incidents

Note to interviewer

Summarize the incidents that were reported. It is important to refocus the interview at the end to make sure that you have understood the factors that have been put forward. This will also help when it comes to transcribing and so on.

Interview End Time: _____ Length of interview: _____
Interviewer's Name: _____