

College Students' Career Exploration: The Impact of Social Networks and Individual Self-Efficacy

Stephanie Abbas, Miriam Brown, Kurt Hager, Victoria Heinonen, Rae Tamblyn,
and Tenzin Norzin Waleag

Abstract

Past studies have focused on the effect of social networks and self-efficacy (students' levels of comfort and confidence) on the transition from college to career. Our study examines the impact of these two variables on students' perception and use of career exploration resources, and it investigates students' perception of their preparedness for transitioning from college to the workforce. Using a random sample survey of students at a small, private, liberal arts college in the Midwest we test three hypotheses: (1) students who make greater use of career exploration resources tend to perceive themselves as better prepared to enter the workforce than do students who use career exploration resources less; (2) students' extra-familial social networks have a more significant impact on career exploration than does their use of on-campus resources such as a career counseling center; (3) students with higher levels of self-efficacy tend to be more involved with career exploration than do students with low levels of self-efficacy. We found a relationship between self-efficacy and the level of involvement with two of the three methods of career exploration. Our data suggest a relationship between use of resources and perception of preparation for transition to the workforce, as well as a statistically significant difference between the impact of social networks and of on-campus resources.

Introduction and Literature Review

College graduates' transition from school to the workforce has been the subject of much research (Brown 2004; Furstenberg 2006; Furstenberg, Kennedy, McLoyd, Rumbaut, and Settersten 2008; Wendlandt and Rochlen 2008). The results of this research are important for colleges and universities due to the important role these institutions play in students' post-graduate plans. Researchers frequently refer to graduates' movement from college into the workforce as the *transition to adulthood*. Furstenberg et al. (2008) note that 'adulthood' is increasingly defined by an individual's ability to obtain a job and become financially independent. Researchers have focused on factors that can ease or complicate the shift from college to post-college life (Furstenberg 2006; Wendlandt and Rochlen 2008). For example,

Furstenberg (2006) examined how the social inequality affects the obstacles individuals encounter during this transition.

Wendlandt and Rochlen (2008) reported that the college-to-work transition can be simplified by ensuring that students' expectations of the working world are realistic, and that students are prepared for the culture of the working environment. Other research that is relevant to understanding the college-to-work transition has focused on students' attitudes, beliefs, and plans regarding vocation and career (Dziuban, Tango, and Hynes 1994); the process of vocational and career discernment (Ware, Mark, and Matthews 1980); the impact of informal experience and skill-building; (Stanton 1978); the effect of formal career and job experience (Porfeli and Skorikov 2009); and the effect of the process of job- and career-seeking on the transition to adulthood (Murphy, Blustein, Bohlig, and Platt 2010).

We investigated the effect of career exploration on students' transition to the working world. Studies of career exploration have examined activities that influence students' potential career paths and solidify their interests and desires, including but not limited to researching various career types and specific jobs, participating in job shadowing, research and internships, attending workshops, completing personality and interest inventories, holding a job, and contacting people in various social networks. Specifically, researchers have focused on the role of social support (Murphy et al. 2010; Stringer and Kerpelman 2010), the different methods for career exploration (Reed 1984; Ware and Matthews 1980), and the role of career decision-making self-efficacy, defined as "a person's beliefs concerning his/her ability to successfully perform a given task or behavior" (Gushue, Clarke, Pantzer, and Scanlan 2006).

Previous studies have examined the impact of social support within the family on career exploration. Stringer and Kerpelman identified four dimensions of parental support that shape the career identity of a daughter or son: career-related exposure, verbal encouragement, instrumental assistance, and emotional support (2010). They found that high levels of parental support decreased the likelihood that a student would decide on a career without adequate

exploration (Stringer and Kerpelman 2010). The researchers also found a correlation between gender and types of helpful parental support. For example, males are more likely to show self-efficacy due to career-related modeling, or childhood exposure to one or both parents' work environment and role, while females are more likely to show self-efficacy due to emotional support from one or both parents (Springer and Kerpelman 2010). However, Murphy et al. (2010) found that maternal support enables the formation of flexible career goals and a strong work ethic in both genders. Murphy et al. (2010) also reported that students who have their parents' unconditional support are more likely to explore various career paths. Research has highlighted the importance of inter-family social support in influencing an individual's transition to adulthood, emphasizing the need for social support post-graduation (Murphy et al. 2010).

Other researchers have studied the importance of extra-familial social support networks on career exploration resources. Ware and Matthews (1980) studied students who (1) attended a series of presentations on careers offered by a psychology department (2) participated in an advising program and a course in career development, and (3) attended other meetings pertaining to career exploration. Most significantly, Ware and Matthews (1980) discovered that due to all three types of participation, students gained and improved upon their relationships with faculty. Faculty offered students' contacts for potential employment and career advice. The study demonstrates the interconnection between social support networks and career exploration methods.

In addition to the opportunities and benefits that social support networks may provide students, studies have shown that college students use other resources in career exploration, such as completing internships, utilizing career planning centers, taking career exploration courses, and choosing a major. Researchers have examined the effectiveness of other methods in encouraging students to explore careers. For example, Reed (1984) studied a course taught by a psychology department on career and life planning that was open only to sophomores and juniors. Students received a pre-test and post-test to assess their level of career planning

knowledge. Results suggested that the class improved students' career planning knowledge and helped them map their career path.

Other researchers have noted that self-efficacy is an important variable to consider when examining *why* students engage in career exploration. According to Nauta (2007), high levels of self-efficacy predicted engagement in career exploration activities such as internships, career research, or mock interviews. Most researchers studied the relationship between self-efficacy and engagement in career exploration within underrepresented populations. For example, Gushue et al. (2006) applied this theory to a southeastern Latino/a population of high school age students and Nevill and Schlecker (1988) studied females. Both of these studies concluded that their respective populations had lower self-efficacy concerning career-decision making than their Caucasian and male counterparts. Gushue et al. (2006) and Nevill and Schlecker (1988) suggest that teachers, career counselors, and advisers could ease the transition to the working world for students by increasing levels of self-efficacy. For example, teachers can show students how their skills transfer to different careers. This knowledge increases students' levels of self-efficacy and encourages students to view more careers as viable options. These studies link self-efficacy to both social support networks and career exploration. Increasing students' levels of self-efficacy through career counseling or exposure to more career-related knowledge increases students' participation in career exploration. Most importantly for students and their educational institutions, increased participation in exploratory activities can help ease graduates' transition to adulthood by forming realistic expectations of the work place and can help students discover what they want and/or do not want in a career.

Given that previous research has identified social networks, the different methods of career exploration, and levels of self-efficacy as important variables to consider when studying student participation in career exploration, we test the following hypotheses:

1. Students who make greater use of career exploration resources tend to perceive themselves as better prepared to enter the workforce than do students who use career exploration resources less.
2. Students' social networks have a more significant impact on career exploration than does their use of on-campus resources such as a career counseling center.
3. Students with higher levels of self-efficacy tend to be more involved with career exploration than do students with low levels of self-efficacy.

Methods

Our study examines the career exploration practices of students at a small, private liberal arts college in the Midwest in the fall of 2010. Our data were gathered as part of a larger applied study investigating the transition from college to the working world. After reviewing the literature, we conducted a focus group with a small sample of our target population, which included two freshmen, three juniors, and two seniors. Their comments helped us identify and define important variables for our study. We used a survey to measure the prevailing attitudes, perceptions and utilization of various career exploration resources.

Literature from previous studies suggested that high levels of self-efficacy are a prerequisite for effective career exploration (Nevill and Schlecker 1988; Gushue, Clarke, Pantzer, and Scanlan 2006; Nauta 2007). Therefore, we measured students' *levels of self-efficacy* by creating an index to generate a composite sum that assessed how comfortable and confident students were in using career exploration resources. Literature suggested that access to various social support networks impacts individuals' participation in career exploration, especially family-based social support networks (Murphy, Blustein, Bohlig, and Platt 2010; Stringer and Kerpelman 2010). Therefore, we focused on the role of *social networking* in career exploration and perception of preparedness for post-graduate life. Our survey explored facets of students' social networks used to find opportunities for career exploration. Additionally, we

measured the effectiveness of different *methods of career exploration*, such as academic advisors, professors, and an on-campus career planning center, as self-reported by students.

Our conceptual definitions of our variables of self-efficacy, social support, and methods of career exploration have face validity, and match conceptual definitions judged as accurate measures by the social science community and used in previous research (Neuman 2007; Ware and Matthews 1980; Reed 1984; Nevill and Schlecker 1988; Gushue et al. 2006; Nauta 2007; Murphy et al. 2010). Our measures also have face validity because they were approved by peers from other research groups that were part of our larger project. Our measures of self-efficacy and social support have content validity in that the indexes we used to measure them are composed of multiple indicators that address each aspect of our conceptual definitions.

Our survey needed to elicit consistent responses in order to ensure reliability as well as validity (Neuman 2007 116). We increased the reliability of our variables by subjecting our survey to a pre-test which helped us refine our definitions and clarify our questions. Other student research teams also examined our questions and concepts, which helped us to concisely conceptualize our constructs (116). We used multiple indicators to measure variables, which increased the reliability of our results (117). The indexes we used were composed of many questions to measure self-efficacy and skills gained from career exploration at the most precise level possible.

We utilized a software program called Form Creator to create two online surveys that were sent to two different simple random samples of 777 students in the fall of 2010. The samples were chosen randomly and excluded students who were under the age of eighteen, studying off-campus, not-full time, or had participated in our focus group session, along with the students in other research teams. From our first survey, Sample A, we received 389 responses yielding a response rate of 50.1%. Of the 381 respondents who identified their gender, 61.9% (236) were female and 38.1% (145) were male. Of the 382 students who identified their year in school, 24.3% (93) were seniors, 25.1% (96) were juniors, 27.5% (105)

were sophomores and 23.0% (88) were first years. Our second survey, Sample B, was distributed to a different simple random sample of 777 students, and had a response rate of 44.3% (344). Out of 344 respondents to our second survey, 64.8% (223) identified as female and 33.4% (115) identified as male. 21.8% (75) were seniors, 25.9% (89) were juniors, 23.0% (79) were sophomores, and 27.0% (93) were first-years. Our second survey specifically included Likert-scale questions about student perceptions of skills and assets gained from internships. From the responses to our second survey, we created an index of perceived skill and asset acquisition from on-campus jobs and internships. Note that this sample was used to test our first hypothesis only and Sample A was used for hypotheses two and three.

We paid special attention to the potential ethical concerns of our survey in order to meet our institution's review board's ethical requirements and to prevent any potential harm to our respondents. For the focus group, we verified that the participants knew that their participation was voluntary and that their answers, although not anonymous, would be kept confidential. For the survey, respondents were guaranteed privacy by using anonymity and confidentiality to address the potential issue; no names were linked to data, and data were presented only in aggregate form. We excluded students under the age of eighteen from our sample, as this demographic represents a "special population" and would have required us to obtain permission from guardians. We used a raffle drawing, which students could enter, for one of ten \$20 gift certificates to an on-campus bookstore as an incentive for participation. Additionally, we sent an e-mail to potential respondents which discussed the topic of our survey, the project's relevance, and the potential benefits to students. This e-mail also emphasized voluntary participation.

We limited the psychological stress respondents might have felt during participation by avoiding threatening questions. While some respondents might still have felt some stress due to the subject matter of the survey (some may have grown anxious about their own preparedness

for the transition out of college), this stress is relatively minor and the benefit of conducting this research for future students outweighs the potential psychological stress.

Results

Our Sample's Career Exploration Practices:

We first examined in what career exploration practices our sample had engaged. We asked respondents about their participation in three career exploration activities: research assistantships, internships, and job shadowing. Only 38.3% (147) of our sample had participated in at least one of these activities. Table 1 displays the percentages of our sample that had completed each activity. Note that the sum of the percentages is greater than 38.3% due to the fact that some students had participated in more than one of these three career exploration activities.

Table 1: Percent of Respondents Who Have Participated in Each of the Three Forms of Career Exploration Activities

Percent of Respondents Who Have Participated in Each of the Three Forms of Career Exploration Activities	
Research Assistant Experience	11.6% (45 out of 387)
Internship	20.8% (81 out of 389)
Job Shadowing	19.2% (74 out of 386)

We measured the extent of overlap in respondents' participation in these activities and found that the mean level of participation for the entire sample was .52, indicating that most respondents had not participated in career exploration. As shown in Table 2, we then controlled for the overlap in participation amongst the 38.3% (147) of students who had participated in career exploration and found that most respondents had only participated in one to two of the three career exploration activities.

Table 2: Student participation in none, one, or more of the three career exploration activities

Student Participation in None, One, or More of the Three Career Exploration Activities			
		Frequency	Valid Percent
Valid	0	237	61.7
	1	99	25.8
	2	44	11.5
	3	4	1.0
	Total	384	100.0
Missing (999)		5	
Total		389	

We then measured career exploration involvement as differentiated by year in school. Figure 1 shows the positive relationship between year in school and career exploration participation.

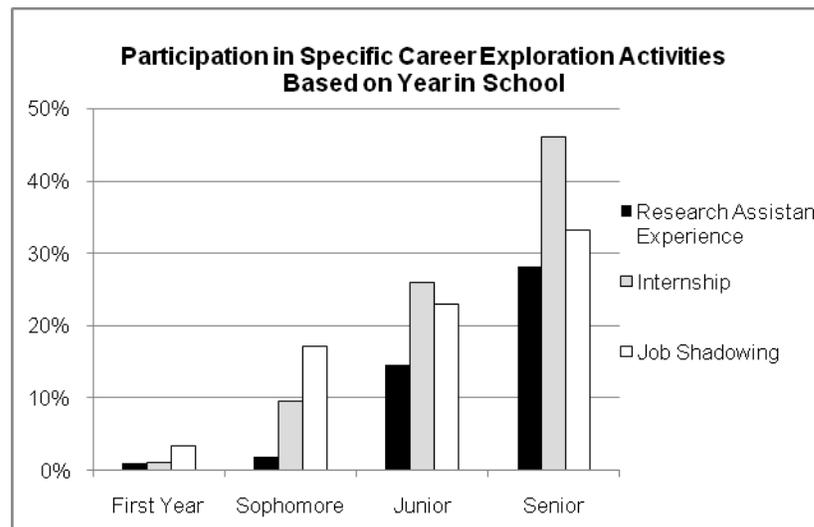


Figure 1: Participation in specific career exploration activities based on year in school.

Hypothesis 1: Students who make greater use of career exploration resources tend to perceive themselves as better prepared to enter the workforce than do students who use career exploration resources less.

To test our first hypothesis that students who make greater use of career exploration resources tend to perceive themselves as better prepared to enter the workforce than do students who use career exploration resources less, we created an index of perceived skills

and assets gained through participation in internships. The index included students' perceptions of the following skills and assets gained from their participation.

1. Better Prospects for Employment after Graduation
2. Written Communication Skills
3. Oral Communication Skills
4. Time-Management Skills
5. Leadership Skills
6. Technical Skills (e.g., computer skills)
7. Ability to work as part of a team
8. Ability to work more independently,
9. Decision Making Skills
10. Expansion of my Professional Network

Our index of skills and assets gained from internships was based on a scale from 0-40, with 20 as the midpoint. The mean was 32.5 and the median was 34.5, indicated that students mainly agreed that their participation in internships increased their skills. Scores above 20 indicated that students agreed that they had gained skills and assets (See Figure 2). On the other hand, scores below 20 indicated less agreement with our proposed skills and assets that could be gained from their participation in an internship.

One-Sample Test

	N	Mean	Std. Deviation	Std. Error Mean
Index of Student Perceived Skill and Asset Gain from Internships	84	32.51	7.133	.778

One-Sample Test

	Test Value = 20					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Index of Student Perceived Skill and Asset Gain from Internships	16.077	83	.000	12.512	10.96	14.06

Figure 2: One samples t-test of students' perceived skill and asset gains from internships

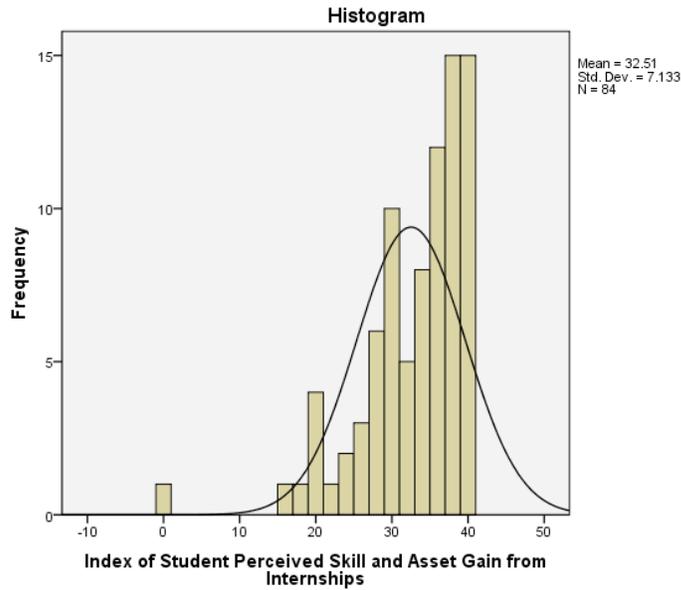


Figure 3: Levels of perceived skill and asset gain from internships

We reject the null hypothesis in favor of supporting our alternative hypothesis that students who make greater use of career exploration resources tend to perceive themselves as

better prepared to enter the workforce than do students who use career exploration resources less.

Hypothesis 2: Students' social networks have a more significant impact on career exploration than does their use of on-campus resources such as a career counseling center.

To test our second hypothesis which states that social networks have a more significant impact on career exploration than the use of an on-campus career counseling center, we asked students to report (1) their use of social networks and on-campus career counseling resources to find career exploration opportunities and (2) the perceived usefulness of these resources in exploring careers. Figure 4 and Table 3 illustrate the total reported usage of social networks and on-campus resources for career exploration and shows that social networks were used more than on-campus resources. 74.7% (287), 77.3% (297), and 78.3% (300) of the sample had used their social networks of academic advisors, professors, and peers, respectively, while only 15.7% (60), 24.9% (95), and 24.7% (94) had used on-campus career counseling resources of alumni panels, internship searches, and the alumni directory, respectively.

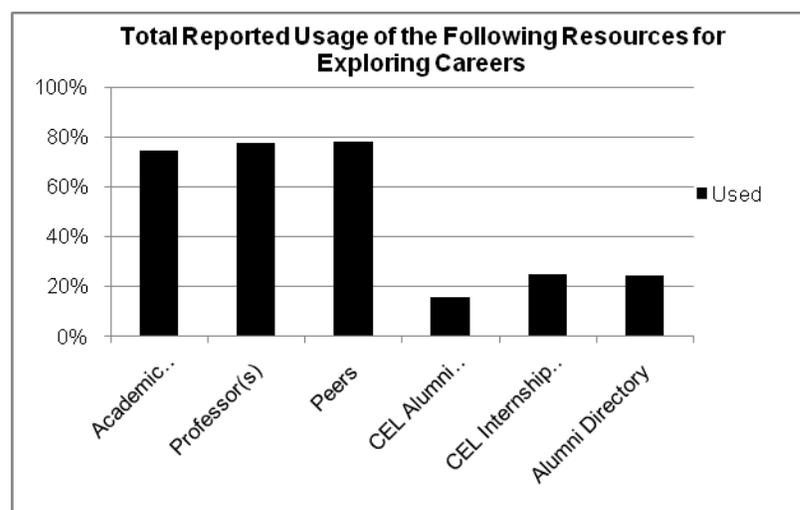


Figure 4: Total reported usage of the following resources for exploring careers

We then asked students who had used these resources to rate their helpfulness. Table 3 shows that although respondents perceived both social networks and on-campus career counseling resources to be helpful, social networks were perceived to be slightly more helpful than on-campus career counseling assistance. To test our hypothesis, we wanted to see whether there was a statistically significant difference in the reported helpfulness between social networks and on-campus career counseling resources. We separated the responses into two groups: social networks (academic advisors, professors, and peers) and on-campus career counseling resources (alumni directory, internships searches, and alumni panels), and calculated the mean helpfulness of each group (on a scale from 0-12, since we had three resources in each group rated on a scale 0-4 with 4 being “very helpful”). The mean helpfulness for on-campus resources was 4.54 and the mean helpfulness for social networks was 7.75. We ran a paired samples t-test to see if this difference was significant and obtained a p-value of less than .000, suggesting that social networks are more helpful to students than on-campus resources.

Table 3: Perception of helpfulness of general resources used

Perception of Helpfulness of General Resources Used	
Resources Used	Percent of Students who Found the Resource Helpful
Academic Advisor(s)	90.6% (260)
Professors(s)	96.3% (286)
Peers	86.7% (279)
Alumni Panels	86.7% (52)
Internship Searches	81.1% (77)
Alumni Directory	83% (78)

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
On-campus Resources & Social Networks	4.54	138	2.790	.237
	7.75	138	2.531	.215

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean Difference	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
On-campus Resources & Social Networks	-3.217	3.451	.294	-3.798	-2.637	-10.952	137	.000

Figure 5: Paired samples t-test comparing the mean levels of helpfulness between social networks and on-campus resources

We reject the null hypothesis in favor of supporting our alternative hypothesis that social networks have a more significant impact on career exploration than do on-campus resources such as a career counseling center.

Hypothesis 3: Students with higher levels of self-efficacy tend to be more involved with career exploration than do students with low levels of self-efficacy.

To test our third hypothesis that students with higher levels of self-efficacy are more involved in career exploration than students with low levels of self-efficacy, we created an index of eight indicators based on a four-point Likert Scale (0-3) with a midpoint of 12 and a range of 0-24. The index measured student levels of career-exploration self-efficacy. Our eight indicators measured students' confidence in transitioning to the working world, and assessed their comfort in exploring careers. Figure 6 shows the distribution of respondents' levels of self-efficacy as

measured by our index; this distribution is fairly normal. Scores above 12 indicate positive levels of self-efficacy and scores below 12 suggest negative levels of self-efficacy. The mean level of self-efficacy is 13.13 with a standard deviation of 4.219.

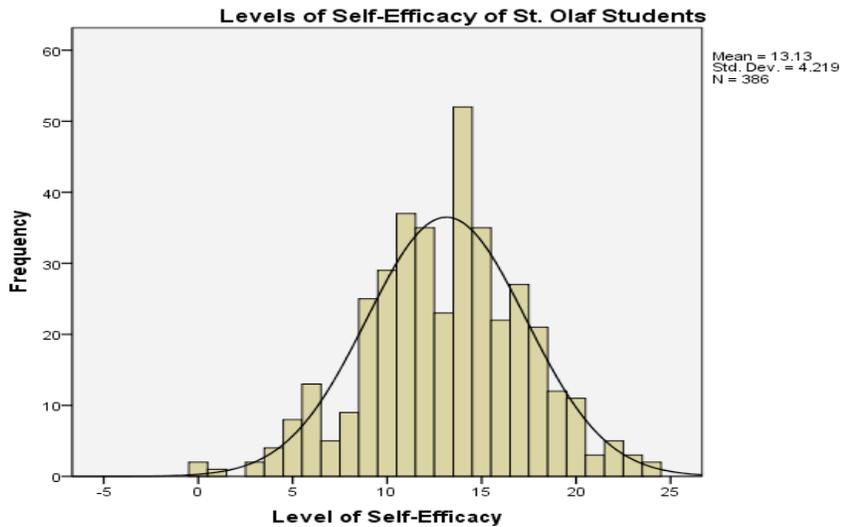


Figure 6: Levels of self-efficacy of St. Olaf students

Table 4 shows the mean levels of self-efficacy for students who engaged in internships, job shadowing, and research assistantships, as compared to those who did not engage in these activities. We ran an independent samples t-test to see if there was a statistically significant difference in means of students who had completed career exploration and those who had not.

Table 4: Average levels of self-efficacy for students who have and have not engaged in career exploration activities

Average Levels of Self-Efficacy for Students Who Have and Have Not Engaged in Career Exploration Activities		
Type of Career Exploration Activity	Level of self-efficacy for students who have completed this activity	Level of self-efficacy for students who have not completed this activity
Research Assistant	13.82	13.40
Internships	14.00	12.91
Job Shadowing	14.36	12.84

The outputs in Figure 7 show that there is a statistically significant difference at the .05 level in the levels of self-efficacy between students who engaged in either job shadowing or

internships as compared to respondents who had not. There was no statistical difference between the means of self-efficacy of students who had participated in research assistantships and those who had not.

Independent Samples Test For Research Assistant and Self-Efficacy

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.889	.346	1.169	382	.243	.784	.671	-.535	2.103
Equal variances not assumed			1.267	59.418	.210	.784	.618	-.453	2.021

Independent Samples Test for Internship and Self-Efficacy

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.653	.420	2.059	384	.040	1.091	.530	.049	2.133
Equal variances not assumed			2.065	121.726	.041	1.091	.528	.045	2.137

Independent Samples Test for Job Shadowing and Self-Efficacy

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.000	.998	2.785	381	.006	1.521	.546	.447	2.594

Figure 7: Outputs for independent samples t-test comparing levels of self-efficacy between students who engaged in career exploration and those who did not.

When mean levels of self-efficacy were differentiated by year, there was a statistically significant difference in the average level of self-efficacy of seniors as compared to first-years. Figure 8 suggests a positive relationship between year in school and career-exploration self-efficacy.

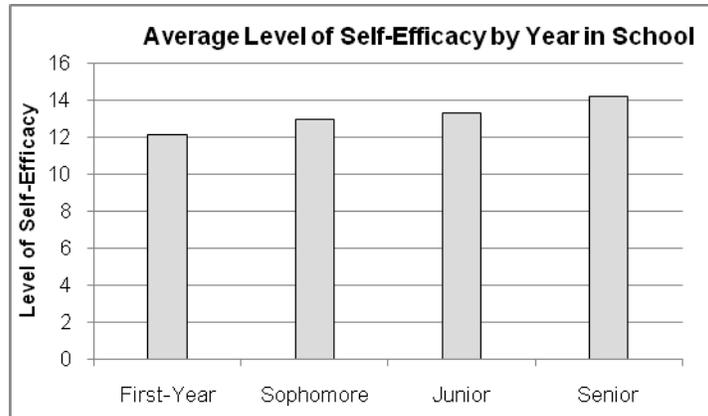


Figure 8: Average level of self-efficacy by year in school.

ANOVA of levels of self-efficacy between all years in school

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	198.137	3	66.046	3.764	.011
Within Groups	6580.728	375	17.549		
Total	6778.865	378			

Figure 9: Self-efficacy between all years in school.

Based on our data, we accept the null hypothesis that there is no relationship between self-efficacy and research assistant experiences. Our data suggest that for internships and job shadowing, there is a relationship between self-efficacy and career exploration, leading us to reject our null hypothesis. Note that Figures 8 and 9 present a statistically significant difference at the .001 level between years in school and levels of self-efficacy. Therefore, year in school presents a potentially confounding variable, discussed later in the paper.

Discussion

Our data from our first hypothesis show that the career exploration resources such as internships are perceived as helpful for gaining skills and assets. Our data suggest that students who participated in internships are better prepared to enter the workforce. One reason for the high mean of 34.5 on a 0-40 scale may be that those who attain internships already have some career-related skills needed for the workforce. For example, many companies require an

applicant to submit a resume (written communication skills) or to be interviewed (oral communication skills) before being hired. Our findings reflect research done by Porfeli and Skorikov (2009), who found that students who participated in career exploration activities based on their previously acquired skills are likely to be more confident about their career confidence and planning. Therefore, we suggest that career exploration activities, such as internships, should be promoted to college students. This may be done by granting general education credit for internships and by encouraging advisors to emphasize the importance of skills gained from internships for the transition from college to career.

In testing our second hypothesis, we discovered that the use of social networks in career exploration was perceived as more helpful than the use of on-campus career counseling resources. This may be a reflection of the fact that more students use their social networks than on-campus career counseling resources to find career exploration opportunities. Since students use their social network more often, they may know how to use these resources more efficiently and thus do not seek out on-campus resources. Additionally, our respondents may have used their social networks to a greater extent and perceived these networks as more helpful because they feel more comfortable exploring careers with people with whom they already have a relationship. Social networks are easily constructed through classroom and extra-curricular interaction. For example, students must meet with an academic advisor and interact with professors during classes. The ease of finding and developing social networks on campus may also explain why social networks are utilized more than on-campus career counseling resources. This is consistent with findings from Ware and Matthews (1980), who posit that students gained and improved their relationships with faculty through participation in faculty-sponsored career exploration events. Therefore, we propose that colleges keep professors and academic advisors informed on career exploration opportunities so that they can better assist students. We also encourage students to approach their professors, advisors, and peers for

assistance with career exploration since our data show that students found their social networks to be very helpful in finding career exploration opportunities.

The higher mean levels of self-efficacy of students who had participated in internships and job shadowing compared to those who had not suggested that students with higher self-efficacy are more involved with career exploration. Our data only support our third hypothesis that there is a mutual relationship between self-efficacy and participation in job shadowing and internships. There was no statistically significant difference in the mean levels of self-efficacy of students who had completed a research assistantship as compared to those who had not. It is possible that research assistantships may not be perceived as applicable to the working world when compared to the skills and knowledge gained in job shadowing and internships. Thus, participation in a research assistantship may not increase levels of career exploration self-efficacy even though Nauta (2007) suggested that high levels of self-efficacy predict engagement in career exploration activities such as internships, career research, or mock interviews. Higher levels of self-efficacy may predict involvement in career exploration in our sample, or they may be a cause of past participation. Additionally, as seen in Figure 1, Figure 8, and Figure 9, career exploration participation and mean level of self-efficacy increases with year, thus year in school may be a confounding variable in our analysis. Since our data suggest a positive relationship between year in school and level of self-efficacy and career exploration involvement, we suggest that colleges target underclassmen for career exploration.

Conclusion

We examined students' *perception* of their participation in career exploration, their use of various *career exploration resources* and levels of *self-efficacy* in relation to participation in career exploration. The majority of students did not participate in career exploration in the form of internships, job shadowing and research assistantships. However, participation in the activities resulted in higher self-reported gains such as increased awareness, knowledge and

skills. Students who participated in career exploration found *on-campus social networks* significantly more helpful than on-campus resources. Finally, our data suggest a mutual relationship between career exploration and self-efficacy, but the relationship is potential spurious, with year in school being a confounding variable. Further research is required to explore the role that year in school may play in relation to self-efficacy and career exploration.

Strengths of our research include the high response rate of 50.1% (389/777) to our survey, which increased the validity of our research and enabled us to reach a demographically representative sample of the college student body. Given the relatively homogenous population at the college of our study, we cannot generalize our results to the larger population, but our results are generalizable to the college's student body. Peer editing within our research team and outside statistic help from a consultant also increased the reliability and validity of our results. Limitations of our study that potentially influenced our data include the low number of questions we could ask on our survey due to length and time constraints.

We suggest that future research that focuses on student gains from career exploration should differentiate between perceived, self-reported gains (as our research studied) and actual, measurable gains from career exploration in the form of a longitudinal study. We also suggest that future research explore the role of year in school in relation to career exploration involvement and level of self-efficacy.

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