

INFLUENCE OF CAREER SELF-EFFICACY BELIEFS ON  
CAREER EXPLORATION BEHAVIORS

A THESIS

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FOR THE DEGREE OF  
MASTER OF SCIENCE IN MENTAL HEALTH COUNSELING

By

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## ABSTRACT

The study involved 211 female and 47 male (259 total) college students from the State University of New York at New Paltz general population. All data were collected online. It was hypothesized that the sources of career self-efficacy would significantly correlate with and predict career exploration over and above career self-efficacy, and that past performance accomplishments would have the strongest influence. To measure the sources of career self-efficacy the *Career Self-Efficacy Sources Scale* was created. The *Career Decision Self-Efficacy Scale- Short Form* (Betz, Klein, & Taylor, 1996) was used to measure career self-efficacy. To measure career exploration a revised version of the *Career Exploration Survey* (Stumpf, Colarelli, & Hartman, 1983) was used. Results of the confirmatory factor analysis showed a five factor solution with the factors *Past Performance Accomplishments*, *Vicarious Learning*, *Verbal Persuasion*, *Emotional Arousal Negative*, and *Emotional Arousal Positive*, was a good fit for the data. The career self-efficacy sources scales also correlated significantly with career self-efficacy. Results of the bivariate correlations and multiple regression analyses supported the hypothesis that sources of career self-efficacy beliefs do in fact correlate with and predict career exploration. Performance accomplishments had the strongest influence on career self-efficacy, whereas verbal persuasion was the strongest predictor of career exploration. These results suggest that career counselors should incorporate verbal persuasion in their work with clients to enhance career self-efficacy and career exploration.

## INTRODUCTION

This study explored the sources of career self-efficacy beliefs and their influence on career exploration behaviors. The main research question asked whether a significant relationship exists between sources of career self-efficacy and career exploration, and looked at which of the four sources were related to higher career self-efficacy and more active career exploration. This research is important because it is beneficial to understand what motivates individuals to explore career opportunities. Furthermore, this research is based on the belief that possessing a high level of self-efficacy towards one's career and job search ability increases the likelihood an individual would be more motivated to actively explore and achieve successful career outcomes. Studies on these constructs are an important contribution since there is a lack of research available on the relationship between the various sources of career self efficacy beliefs on career exploration behaviors. In fact, Bandura's (1977) four sources of self-efficacy have not been previously explored in relation to career self-efficacy and career exploration. This paper will review the topics of self-efficacy beliefs, the four sources of self-efficacy, career self-efficacy, career exploration, and counseling applications.

### ***Self-Efficacy***

#### *Theories Behind Self-Efficacy (History of Bandura's Contributions)*

In 1977, Alfred Bandura developed a theory of self-efficacy, which has been widely recognized as a practical way of understanding the link between self-talk and behavior. Self-efficacy is defined as an individual's level of confidence in and beliefs about his/her capabilities to successfully carry out courses of action, perform given

behaviors, accomplish given tasks, and attain desired performance outcomes (Bandura, 1977, 1993, 1997; Buchmann, 1997; Betz & Hackett, 1981; Betz & Taylor, 2001; Lent, et al., 1994; Nesdale & Pinter, 2000). Self-efficacy can ultimately determine whether an individual will choose to perform or refrain from performing a task (Bandura, 1977, 1982). In fact, people's beliefs about their capabilities are often central to how they interact with the world (Sterrett, 1998). Self-efficacy is therefore an important factor in understanding how people develop confidence and perceive their abilities.

Self-efficacy beliefs influence how people feel, think, motivate themselves, and behave (Bandura, 1993). In Bandura's (1977, 1986) model of social learning he describes self-efficacy as a cognitive structure created by the cumulative learning experiences in a person's life. These experiences can lead an individual to develop the belief or expectation that they can or cannot successfully perform a specific task or activity (Bandura, 1977, 1986). People who have high self-efficacy are more likely to attempt and successfully execute tasks, whereas those with low self-efficacy find it difficult to achieve them because they are often fighting self doubt (Bandura, 1993, 1997). Thus, both positive and negative self-efficacy beliefs have a big influence on what activities people choose to participate in.

### ***Sources of Self-Efficacy***

Bandura's (1977, 1982) self-efficacy theory proposed that self-efficacy beliefs are developed and increased primarily through four major processes and sources of information. These are (a) past performance accomplishments and successful mastery experiences, (b) vicarious learning experiences through observing the performance of role models and modeling them, (c) verbal persuasion such as social influences in

response to one's abilities and encouragement from others, and (d) emotional arousal such as anxiety and other negative psychological states (Bandura, 1982). These sources are truly essential in understanding how self-efficacy beliefs develop, and are the foundation for the current research.

### *Past Performance Accomplishments*

Although self-efficacy is flexible, it usually comes from sources that are based primarily on past performance experiences (Lane, Jones, & Stevens, 2002). In fact, past performance accomplishments tend to be the most powerful and dependable predictors of self-efficacy beliefs (Bandura, 1977, 1986; Dawes, Horan, & Hackett, 2000; Lane et al., 2002). Research evidence showed that high self-efficacy beliefs from past experiences of success and mastery, and low self-efficacy based on poor experiences also generalize across different contexts and situations (Lane et al., 2002; Niles & Sowa, 1992; Sterrett, 1998). Based on this research we would predict that past performance accomplishments have the strongest influence on self-efficacy beliefs.

### *Verbal Persuasion*

A person's self-efficacy can also be increased when encouraged by others they are capable of successfully completing a task, especially regarding mastery in difficult situations (Bandura, 1977). Guidance and positive suggestions from others can assist in correcting performance in areas needing improvement, which are producing unsuccessful results (Bandura, 1977). This encouragement however, can be less influential than an individual's own accomplishment experiences, since it is not based on authentic personal experiences (Bandura, 1977). As a result, a person may not truly believe what they are

being told (Bandura, 1977). In response, it is important that people utilize verbal support and encouragement from others, to be motivated to create new opportunities to observe their own success.

### *Emotional Arousal*

Emotional arousal is another source of information that can impact self-efficacy (Bandura, 1977). People often rely to some extent on their emotional reactions to situations or tasks to help determine if they can cope and be successful at it (Bandura, 1977). High negative emotional arousal often debilitates performance, whereas positive emotional arousal can raise performance (Bandura, 1977). Negative emotional arousals are stressful reactions that often lead to fear, and cause people to doubt their competency (Bandura, 1977). Positive emotional arousals and anxiety towards a task can lead people to be more motivated to perform successfully and increase feelings of satisfaction from the task. It is essential therefore, that techniques to reduce negative and increase positive emotions be used to raise self-efficacy.

### *Vicarious Learning*

Many self-efficacy beliefs are also developed by learning from other people's experiences (Bandura, 1977). Observing others perform successfully can improve people's beliefs in their own capabilities to perform in similar ways, and helps encourage persistence in their own efforts (Bandura, 1977). People often compare themselves to others and become convinced that if someone else similar to them can do it, so can they (Bandura, 1977). The clearer the outcomes and the more determination expended in the face of obstacles by the model, the more likely the observer will be to model that

behavior in the future (Bandura, 1977). Since observing others is not a direct reflection on how someone will do personally though, its effect can be weaker than the other sources (Bandura, 1977). As a result, it is beneficial for people to observe the successes of others to help enhance their confidence in their own abilities to succeed.

### ***Career Self-Efficacy***

#### *Application of Self-Efficacy Theory to Careers*

In 1981, Hackett and Betz developed a theory of career self-efficacy by applying the concept of self-efficacy to career-related behaviors. A career can be defined as the combination and sequence of work roles that a person experiences throughout their lifetime (Super, 1980). Career self-efficacy on the other hand, can be defined as people's judgments of their abilities to perform career behaviors in relation to career development, choice, and adjustment (Anderson & Betz, 2001; Niles & Sowa, 1992). Career self-efficacy provides important information relevant to understanding the complex career development process (Niles & Sowa, 1992).

Career self-efficacy beliefs can lead to avoidance of or motivation toward career behaviors (Betz & Taylor, 2001). Low career self-efficacy can cause people to procrastinate making career decisions, and may delay them from following through with a decision once it has been made (Betz, 1992). Even if a low career self-efficacy belief is based on a realistic and accurate assessment of an individual's capabilities or past experiences, it often leads to a lack of full awareness of his or her potential to successfully pursue different careers (Betz & Hackett, 1981). On the other hand, those who have high career self-efficacy tend to visualize success for themselves and seek positive support and outcomes for their career ambitions (Bandura, 1993). In general, the

higher the career self-efficacy, the greater the career goals and challenges people will set for themselves, and the stronger their commitment will be to them (Bandura, 1993, 1997). As a result, low career self-efficacy beliefs should be challenged and improved, whereas high career self-efficacy should be supported and reinforced.

Additionally, career self-efficacy is considered essential to successful job performance, and can greatly influence work behaviors regardless of knowledge and skill (Bandura, 1977, 1986; Dawes, et al.; Giles & Rea, 1999; Niles & Sowa, 1992). Nesdale and Pinter (2000) found that across diverse cultures career self-efficacy was a significant predictor of an individual's ability to continually find employment. Career self-efficacy has also been found to be one of the best predictors of many beginning career behaviors, such as job searching (Niles & Sowa, 1992). Past research has found that career self-efficacy beliefs do indeed have a strong influence on career exploration and employment outcomes.

### ***Career Exploration***

#### *Theories Behind Career Exploration*

In the early 1960s, the original theory of career exploration was developed (Jordaan, 1963). The importance of career exploration has become more valued in recent years as interest has grown in this area due to its significance to the careers process, resulting in many new directions of theory and research (Bartley & Robitschek, 2000; Blustein, 1992; 1997). The historically based view of career exploration as being simply a form of information seeking to gain occupational knowledge has been widely reconsidered (Blustein, 1992, Taveira & Moreno, 2003). Career exploration is now

viewed as an essential part of career development, and an important element in career decision-making (Atkinson & Murrell, 1988; Blustein, 1997; Taveira & Moreno, 2003).

Career exploration can be defined as a complex process individuals' engage in to obtain and enhance self and environmental knowledge, and to ultimately attain career goals (Atkinson & Murrell, 1988; Blustein, 1992; Jordaan, 1963; Taveira & Moreno, 2003). Career exploration encompasses a wide range of activities including the gathering of information and knowledge about job searching, planning, opportunities, and career options (Levi & Ziegler, 1993). It involves career-related behaviors such as talking to people about opportunities, learning about necessary abilities and skills, and acquiring education for advancement (Betz & Voyten, 1997). Career exploration therefore is composed of many diverse activities used to promote career growth.

It is perceived however, that only through systematic and thorough career exploration can people adequately gather information that will help them make clear and successful career choices (Atkinson & Murrell, 1988). Nesdale and Pinter (2000) found in their study that as opposed to not participating in these activities, when people seek employment through job training, preparing resumes, answering advertisements, and interviewing, it increases their probability of obtaining employment. In addition, another study found that if people show persistence in their job search and establish letters of recommendation, their chances of success and obtaining satisfying jobs is also greater (Jepsen & Dickson, 2003). It is important then that career exploration has proper structure and involves various types of career seeking activities to find employment.

Furthermore, Blustein (1997) believed that the motivation to explore careers is mostly intrinsic and develops from natural curiosity, self-determination, and desire. If an individual is not provided with the appropriate resources to be properly prepared, and does not receive specific reinforcements and encouragements, the task of career exploring can turn out to be quite unpleasant and ineffective (Blustein, 1997). On the other hand, when individuals incorporate their own needs, wants, values, and aspirations in their career exploration, it enriches the career-learning experience (Atkinson & Murrell, 1988). Thus, people tend to explore careers in response to internal drives, but this motivation can be enhanced when the process becomes meaningful to them personally.

### ***Relationship Between Career Self-Efficacy and Career Exploration***

Research has shown a significant relationship exists between career self-efficacy beliefs and career exploration activities (Betz and Voyten, 1997; Blustein, 1989; Dawes et al, 2000; Foltz & Luzzo, 1998; Van Ryn & Vinokur, 1992). According to Sterrett (1998), just the basic career self-efficacy belief that one can successfully search for a job is needed for initiating the job search, obtaining employment, enduring rejection, and staying with a job once it is obtained. Similarly, Van Ryn and Vinokur (1992) found that the higher an individual's level of career self-efficacy, the more job search behaviors and positive employment outcomes will occur. In more recent research, Dawes et al., (2000) found that low career self-efficacy on the other hand can limit career exploration and development. Past studies support then, that career self-efficacy beliefs can in fact influence career exploration behaviors.

## ***Influence of Sources on Careers***

### *Career Self-efficacy*

The four sources of self-efficacy can have a strong influence on career self-efficacy beliefs. A lack of past performance accomplishments, insufficient vicarious learning opportunities, and/or the absence of verbal persuasion and encouragement from others in society such as teachers, parents, mentors, or counselors can all affect career self-efficacy negatively (Betz & Hackett, 1981). In addition, emotional arousal is theorized to impact career self-efficacy in both a positive and negative way (Bandura, 1982). In general, if an individual's background has involved successful and positive experiences, in which career self-efficacy has been raised and strengthened, he or she is more likely to develop a higher level of expectations, increased self-confidence, and enhanced performance towards that career domain (Sterrett, 1998; Super, 1963). Positive reinforcement is also important because it is not an individual's measured ability that is usually most influential, but more their beliefs regarding their competence that influences the career choices people make (Betz, 1994; Tuel & Betz, 1998). Therefore, since low career self-efficacy can result from negative experiences with the four sources of self-efficacy, it is essential that positive career experiences with the sources be encouraged to increase self-efficacy beliefs.

### *Exploration*

The sources of self-efficacy can also greatly impact career exploration in many ways. It is believed that past performance accomplishments influence career exploration because past successes in searching for and obtaining a job can impact motivation and beliefs towards being successful at that task again in the future (Bandura, 1982). On the

other hand, verbal persuasion from others can impact an individual's confidence in their ability to explore careers, as well as their knowledge that they should explore and how to do it effectively (Bandura, 1982). Vicarious learning through interactions with others can also increase the likelihood people will explore careers because people often compare themselves to those similar to them (Bandura, 1982). In addition, emotional arousal can be a factor because if anxiety is too high towards finding a job, an individual will usually procrastinate by putting off exploring and doing something less anxiety provoking instead (Bandura, 1982). Similar to career self-efficacy beliefs, using the sources in a positive way is necessary to promote career exploration.

### ***Support for the Need of New Career Measurements***

Past research has supported that there is a need for the development of new ways to measure career self-efficacy and career exploration. In particular, Hackett (1991) felt that a major issue in examining career self-efficacy was defining it in a clear and measurable way. Since an individual's career self-efficacy is based on many complex behaviors, it is more difficult to break them down (Hackett, 1991). Most measurements also evaluate career self-efficacy as being stable over time however it often changes as a result of different experiences (Hackett, 1991). Therefore, a new measurement of career self-efficacy is needed. In addition, although many studies have used the Career Exploration Survey by Stumpf, Colarelli, and Hartman (1983) to study career exploration, most research according to Taveira and Moreno (2003) have used revised versions. Many studies tend to use a more simple definition of career exploration, by using only the self and environment exploration scales (Taveira & Moreno, 2003). In response, Taveira and Moreno (2003) believed that future research and discussion on the

dimensionality and structure of this assessment was needed. This supports that improved definitions of career self-efficacy and career exploration are needed, and that new and updated career measurements would be beneficial.

Another point supporting the need for additional measurements is in reference to the Career Decision Self-Efficacy Scale- Short Form by Betz et al., (1996) and the Career Exploration Survey by Stumpf et al. (1983). A problem with these two well-known measurements is that neither clearly delineates career self-efficacy from career exploration. Both combine elements of career self-efficacy and career exploration into the same construct. For example, the Career Decision Self-Efficacy Scale question 5. “Accurately assess your abilities” and the Career Exploration Survey question 10. “Focused on my thoughts on me as a person in relation to my career” similarly measure self-efficacy. In addition, the Career Exploration Survey question 4. “Investigated career possibilities” and the Career Decision Self-Efficacy Scale question 1. “Find information in the library about occupations you are interested in” both measure exploration. The main fault with the two scales therefore, is that although they intend to measure two separate constructs their items clearly overlap. Past research has shown a correlation between career self-efficacy and career exploration, and this correlation may result simply because of common method variance. More specifically, while what the participants are asked to rate (career self-efficacy- confidence you can do these things and career exploration- do you do these things) may be different, the items being rated overlap considerably. As a result, participants may simply respond similarly to appear consistent. See Appendices E and F to view these scales.

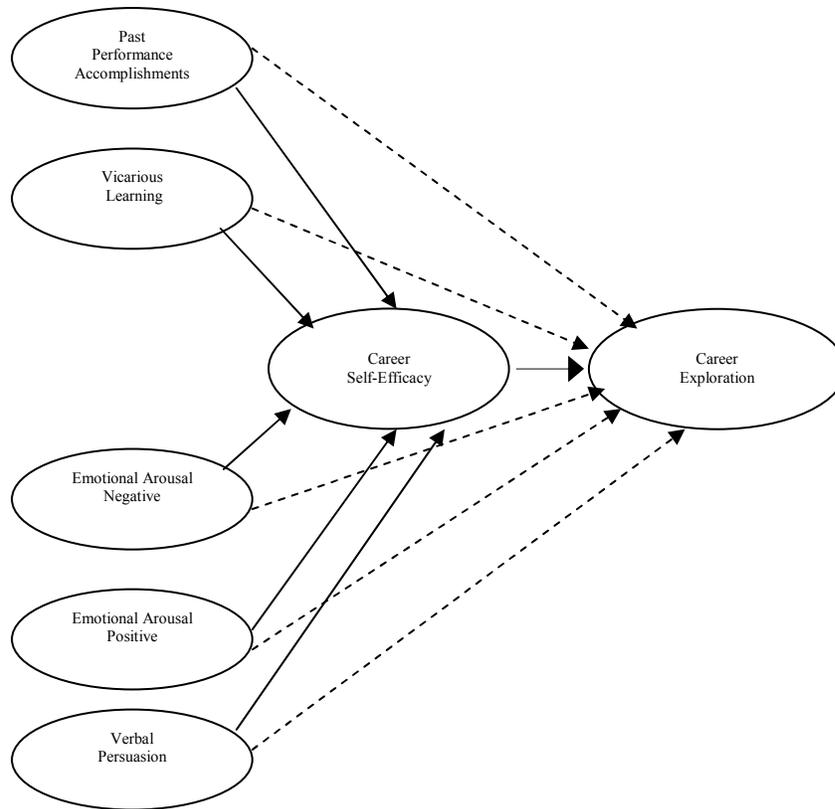
### ***Measurement Goals***

The above review supports that additional research examining new measures of these constructs is needed. The current research adds to this body of literature by exploring the sources behind the development of career self-efficacy beliefs in relation to career exploration, which has not been done before. This study also utilizes a new survey that measures the sources of career self-efficacy, and a revised version of the Career Exploration Survey. It is important to understand how the sources of self-efficacy relate to career self-efficacy beliefs and career exploration behaviors in order to comprehend, challenge, and change low self-efficacy beliefs.

**The following hypotheses were proposed for this study based on the literature reviewed.**

**Hypotheses 1: The sources of career self-efficacy beliefs would be significantly correlated with and predict career exploration over and above career self-efficacy.**

**Hypotheses 2: Past performance accomplishments would have a stronger relationship with career self-efficacy and career exploration than the other sources of self-efficacy.**



*Figure 1.* Model of predicted influence of the sources of career self-efficacy on career self-efficacy beliefs and career exploration behaviors.

## METHOD

### *Participants*

The participants consisted of 259<sup>1</sup> college students, who were (81.5%) female and (18.1%) male, and attended the State University of New York at New Paltz. Their ages ranged from 18 to 54 ( $M = 23$ ). The majority were Caucasian or White (81.5%), followed by Hispanic (7.3%), Other (5%), Asian (3.1%), and African American or Black (2.7%). These demographics are similar to the student population at the SUNY New Paltz which is Caucasian (79%), Hispanic (10%), African-American (7%), and Asian (4%). The majority of participants were Juniors (27.4%), followed more equally by Seniors (19.3%), Graduate Students (18.5%), Sophomores (17.4%), and Freshman (17%). In

regards to major school of study, the majority were enrolled in the College of Liberal Arts & Sciences (44.4%), School of Education (19.7%), School of Business (12 %), School of Science & Engineering (10.4%), School of Fine & Performing Arts (9.3 %), and Undecided (4.2%). In addition, it was the goal of this project to have a participant sample that included about 2%-5% of the 12,168 students accessible through the campus-wide email list. The 259 people that participated in the study thus satisfied the minimum 2% projected.

### *Design and Procedure*

Students were recruited through a SUNY New Paltz campus-wide student email service. A recruitment email was sent out to freshman, sophomores, juniors, seniors, and graduate students from diverse backgrounds and educational areas of study, inviting them to participate in the study (See Appendix A to view the recruitment email). The recruitment email included a link to the study which was posted on a SurveyMonkey.com website (See Appendix B to view introduction to surveys). All research and data collection took place on the internet over a two-week period of time. Participation was anonymous and voluntary, and participants did not receive any reimbursement or incentive to be in the study. After the study was complete, all data were statistically analyzed and interpreted using SPSS Version 14.0.

### *Materials*

*Demographic Information.* A questionnaire was used to collect demographic data including gender, age, race/ethnicity, year in school, and college major category (Appendix C).

*Career Self-Efficacy Sources Scale (CSESS)*. To measure the sources of career self-efficacy beliefs, the Career Self-Efficacy Sources Scale was created (Appendix D). The development of this scale was needed because there are no known measurements that study the sources of career self-efficacy. The Career Self-Efficacy Sources Scale is based on Bandura's (1977) four sources of self-efficacy information. It measures an individual's self-efficacy towards obtaining a job, and consists of 20 questions total. The responses were scored on an interval Likert Scale (1-5), with responses (1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often. The five sources subscales used for this study were Vicarious Learning, Verbal Persuasion, Emotional Arousal Positive, Emotional Arousal Negative, and Performance Accomplishments. The Social Sources Scale by Anderson and Betz (2001) which measures a persons' self-efficacy in relation to their career and social life, was used to provide ideas for creating the items on the Career Self-Efficacy Sources Scale. Similarly, the Self-Efficacy Source Scale by Citera and Combs (2002) which measures academic self-efficacy among college students was also used to assist in the development of the Career Self-Efficacy Sources Scale.

*Career Decision Self-Efficacy Scale- Short Form (CDMSE-SF)*. To study career self-efficacy beliefs and test the validity of the Career Self-Efficacy Sources Scale, the widely used Career Decision Self-Efficacy Scale- Short Form (CDMSE-SF; Betz, Klein, and Taylor, 1996) was used (Appendix E). This scale will be referred to in this study as measuring career self-efficacy. The Career Decision Self-Efficacy Scale measures an individual's confidence that they can successfully complete career tasks and consists of a total of 25 questions. The responses were scored on an interval Likert-type scale, and are (1) No Confidence At All (2) Very Little Confidence (3) Moderate Confidence (4) Much

Confidence (5) Complete Confidence. The Career Decision Self-Efficacy Scale contains five subscales which are 1) Accurate Self-Appraisal 2) Gathering Occupational Information 3) Goal Selection 4) Making Plans for The Future 5) Problem Solving. The short version of the Career Decision Self-Efficacy Scale was chosen for this study because research has shown that the 25-item scale is as highly reliable and valid as the longer 50-item scale (Betz et al., 1995; Betz & Luzzo, 1996; Betz & Taylor, 2001).

*Career Exploration Survey-Revised (CES-R)*. To measure career exploration behavior, a revised version of the *Career Exploration Survey* (CES; Stumpf et al., 1983) was developed, called the *Career Exploration Survey-Revised* (CES-R) (Appendix F). The original Career Exploration Survey measured the cognitive, behavioral, and affective aspects of career exploration, and consisted of a total of 62 questions. For this study, only thirteen questions were chosen from the original survey to use in the revised version. These thirteen questions fit under three subscales 1) Environment Exploration 2) Self-Exploration 3) Intended-Systematic Exploration. The other subscales were excluded because they did not clearly measure exploration behavior (i.e., Frequency, Amount of Information, Number of Occupations Considered, Focus, Satisfaction with Information, Explorational Stress, Decisional Stress, Employment Outlook, Certainty of Career Exploration Outcome, External Search Instrumentality, Internal Search Instrumentality, Method Instrumentality, and Importance of Obtaining Preferred Position). Past studies have supported that the Career Exploration Survey subscales demonstrate acceptable levels of reliability and construct validity (Stumpf et al., 1983).

The Career Exploration Survey-Revised consists of a total of 28 questions. Responses were scored on an interval Likert-type scale, and measured how much career

exploration a person had done over the past 3 months. The scales responses were (1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal. The survey included four minor revisions to the original survey questions 2, 7, 10, and 11, which were made more specific to career/work and updated methods of exploring careers. For example question 2. “Sought opportunities to demonstrate skills”, was revised to “Sought opportunities to demonstrate *work* skills”. Fifteen new questions (14-28) were also added that were relevant to current career exploration methods of college populations. The revised version also took into consideration changes over the past 20-30 years, such as the internet creating new ways of exploring careers and career opportunities. For example question 18. “*Done online searches to obtain career information*”, and 24. “*Taken coursework related to a career you are interested in*”. In addition, the response choices were revised in that *Little* was changed to *Never*, because some individuals may have never done the activity at all.

### *Analysis*

After the study data was collected, SPSS was used to run the statistical analyses and interpret the data. Data from participants who answered less than 10% of the survey were removed. For the remaining participants, missing continuous data values were replaced with the estimated mean value of nearby points (Tabachnick & Fidell, 2001). Since only a small number of randomly scattered missing values needed replacement, thus this method of replacing missing data had minor influence on the analysis outcome and therefore reduced concern for biased or problematic results (George & Mallery, 2005; Tabachnick & Fidell, 2001).

Next, a confirmatory factor analysis was run on the new Career Self-Efficacy Sources Scale to examine its validity and factor loadings. A correlation analysis was also run between the Career Self-Efficacy Sources Scale and Career Decision Self-Efficacy Scales to support the validity of the new scale. Scale scores representing the mean response for each measurement were calculated for all three scales, to obtain information on the descriptive statistics. In addition, bivariate correlations were run on all three scales to see if significant relationships were present between them, and multiple regressions analyses were conducted to test which source had the strongest influence.

## RESULTS

### *Descriptive Statistics*

See Table 1 to view the means and standard deviations for the Career Self-Efficacy Sources Scale, Career Decision Self-Efficacy Scale-Short Form, and Career Exploration Survey-Revised.

### *Career Self-Efficacy Sources Scale*

#### *Confirmatory Factor Analysis*

A confirmatory factor analysis was run on the Career Self-Efficacy Sources Scale to determine its validity and factor loadings. This was done to examine whether the scale reflected the five sources of career self-efficacy as anticipated, or as one overall measure of career self-efficacy. The confirmatory factor analysis was performed using AMOS (Analysis of Moment Structures) software program. Results supported the validity of the Career Self-Efficacy Sources Scale and showed a five factor model fit better than a one

factor model. Therefore, examining the separate sources of career self-efficacy instead of one overall construct of career self-efficacy was supported by the data.

Table 1

*Mean Scores for Participant Responses on Career Scales*

Scale Responses	Mean	Standard Deviation
Vicarious Learning	3.18	.58
Verbal Persuasion	3.09	.82
Emotional Arousal Positive	3.28	.71
Emotional Arousal Negative	2.69	.90
Performance Accomplishments	3.79	.63
Career Self-Efficacy	3.73	.58
Career Exploration	3.16	.73

Note: All means ranged from 1-5.

***Sources of Career Self-Efficacy and Career Self-Efficacy***

To examine further the validity of the five career self-efficacy sources scales, a bivariate correlation analysis was run between the Career Self-Efficacy Sources Scale and the Career Decision Self-Efficacy Scale to test for convergent validity. This was done to compare the participants' responses on the two scales to see if a significant relationship was present. Results showed that career self-efficacy correlated significantly with vicarious learning ( $r = .32, p < .05$ ), verbal persuasion ( $r = .48, p < .05$ ), emotional arousal

positive ( $r = .44, p < .05$ ), and performance accomplishments ( $r = .59, p < .05$ ), and negatively with emotional arousal negative ( $r = -.45, p < .05$ ). These results supported the validity of the new Career Self-Efficacy Sources Scale. See Table 2.

Table 2

*Pearson Correlations between Career Self-Efficacy, Career Exploration, and Sources of Career Self-Efficacy*

	1	2	3	4	5	6	7
1. Career Self-Efficacy	(.93) <sup>a</sup>						
2. Career Exploration	.56*	(.89) <sup>a</sup>					
3. Vicarious Learning	.32	.28	(.58) <sup>a</sup>				
4. Verbal Persuasion	.48	.46	.56*	(.65) <sup>a</sup>			
5. Emotional Arousal Positive	.44	.34	.42	.59*	(.73) <sup>a</sup>		
6. Emotional Arousal Negative	-.45	-.23	-.16	-.25	-.44	(.82) <sup>a</sup>	
7. Performance Accomplishments	.59*	.38	.46	.55*	.55*	-.50*	(.68) <sup>a</sup>

N = 235. \* $p < .05$

<sup>a</sup> coefficient alphas

In addition, it was hypothesized that past performance accomplishments would have a stronger relationship with career self-efficacy than the other sources of career self-efficacy. To test this hypothesis, a multiple linear regression analysis was performed to examine which if the five sources of career self-efficacy contributed significant unique variance above what the other sources predicted. The predictor variables were the five sources, and the criterion variable was career self-efficacy. Regressing career self-efficacy on the sources revealed that overall the model significantly predicted career self-efficacy,  $F(1, 257) = 56.75, p < .001$ , in which 18% of variance in career self-efficacy was accounted for by the sources.

Although the zero-order correlations indicated all five sources predicted career self-efficacy, when all the sources were included only three added unique variance. Those that added unique variance were verbal persuasion, emotional arousal negative and past performance accomplishments. Those that did not were vicarious learning, and emotional arousal positive. Furthermore, squared semipartial correlations showed that more variance was accounted for by performance accomplishments than the other sources. Performance accomplishments accounted for 6% of variance, emotional arousal negative 3%, and verbal persuasion 3%. As hypothesized performance accomplishments did have the strongest relationship with career self-efficacy, therefore supporting this hypothesis. Table 3 presents the regression analysis.

Table 3

*Summary Table of Multiple Regression Analysis for Sources of Career Self-Efficacy Variables Predicting Career Self-Efficacy (N=259)*

Variable	b	$\beta$	Partial Correlation	Semipartial Correlation
Vicarious Learning	-.015	-.015	-.016	-.012
Verbal Persuasion	-.156*	.220*	.199*	.155*
Emotional Arousal Positive	.029	.035	.033	.025
Emotional Arousal Negative	-.135*	-.209*	-.221*	-.173*
Performance Accomplishments	.323*	-.250*	.311*	.250*

\* $p < .05$

### ***Sources of Career Self-Efficacy and Career Exploration***

It was hypothesized that the sources of career self-efficacy beliefs would significantly predict career exploration behaviors. Past performance accomplishments were also predicted to have a stronger relationship with career exploration than the other sources of career self-efficacy. Bivariate correlations were conducted between the five Sources of Career Self-Efficacy Scales and the Career Exploration Survey. As hypothesized, the results showed that career exploration correlated significantly with vicarious learning ( $r = .28, p < .05$ ), verbal persuasion ( $r = .46, p < .05$ ), emotional arousal positive ( $r = .34, p < .05$ ), performance accomplishments ( $r = .38, p < .05$ ), and emotional arousal negative ( $r = -.23, p < .05$ ). See Table 2.

A multiple linear regression analysis was performed to see if any of the five sources of career self-efficacy explained significant variance above the other sources in predicting career exploration. The predictor variables were the five sources of career self-efficacy, and the criterion variable was career exploration. Regressing career exploration on the sources revealed that overall the model significantly predicted career exploration,  $F(5, 253) = 15.70, p < .001$ , in which 24% of variance in career exploration was accounted for by the sources.

Although zero-order correlations indicated all five sources predicted career exploration, when all of the sources were included only two added unique variance: verbal persuasion and performance accomplishments. Squared semipartial correlations showed that verbal persuasion accounted for more variance in career exploration than performance accomplishments. Variance accounted for by verbal persuasion was 6%, and by performance accomplishments was 1%. As hypothesized the sources did significantly predict career exploration. Results however, did not support the hypothesis that performance accomplishments would have the strongest relationship with career exploration, since verbal persuasion did. See Table 4 for regression analysis.

### ***Career Self-Efficacy and Career Exploration***

To examine the relationship between the Career Decision Self-Efficacy Scale and the Career Exploration Scale a bivariate correlation was calculated. Results showed a significant positive correlation between career self-efficacy and career exploration ( $r = .560, p < .05$ ). See Table 2.

Table 4

*Summary Table of Multiple Regression Analysis for Sources of Career Self-Efficacy Variables Predicting Career Exploration (N=235)*

Variable	b	$\beta$	Partial Correlation	Semipartial Correlation
Vicarious Learning	.006	.004	.004	.004
Verbal Persuasion	.304*	.341*	.266*	.241*
Emotional Arousal Positive	.031	.030	.025	.022
Emotional Arousal Negative	-.053*	-.066*	-.062*	-.054*
Performance Accomplishments	.165*	.142*	.116*	.102*

\* $p < .05$

### ***Career Exploration vs. Sources of Career Self-Efficacy and Career Self-Efficacy***

To examine whether the sources of career self-efficacy explained variance over and above career self-efficacy, a multiple linear regression analysis was performed. The predictor variables were the five sources of career self-efficacy and career self-efficacy, and the criterion variable was career exploration. Regressing career exploration on the sources and career self-efficacy revealed adding career self-efficacy to the model significantly increased the predicted variance from 24% to 36%,  $F(6, 252) = 23.67$ ,  $p < .001$ .

Results indicated that only two predictors were significant, career self-efficacy and verbal persuasion. Squared semipartial correlations indicated that career self-efficacy

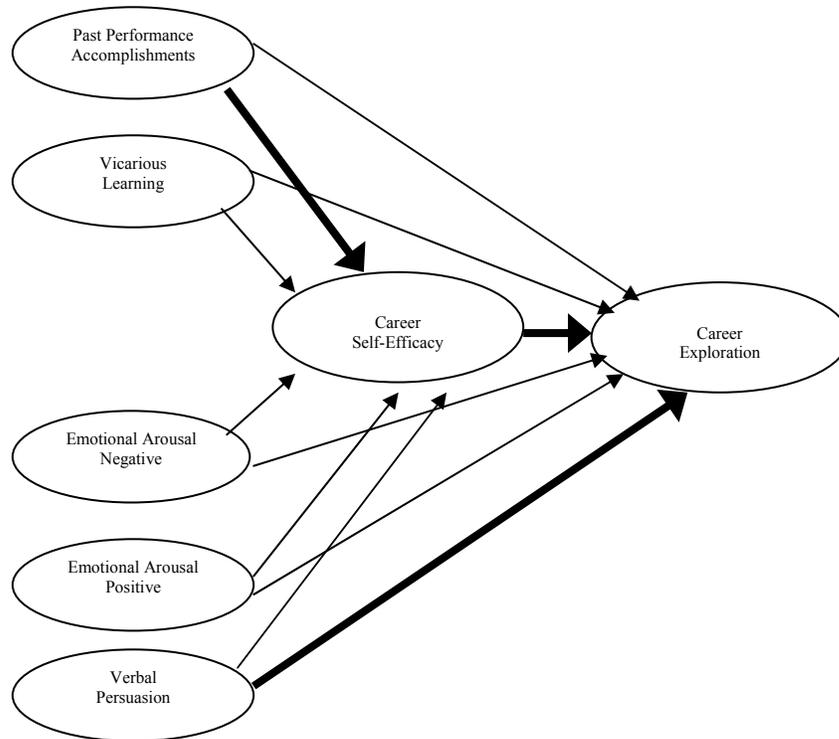
accounted for 12% of the variance and verbal persuasion 3%. As hypothesized results showed that the sources did in fact significantly predict career exploration. As anticipated career self-efficacy was found to be a significant predictor of career exploration. Results however, did not support the hypothesis that performance accomplishments would have the strongest relationship with career exploration, since verbal persuasion was the only source that explained unique variance over and above the other sources and career self-efficacy. Table 5 presents the regression analysis.

Table 5

*Summary Table of Multiple Regression Analysis for Sources of Career Self-Efficacy Variables and Career Self-Efficacy in Predicting Career Exploration (N=235)*

Variable	b	$\beta$	Partial Correlation	Semipartial Correlation
Career Self-Efficacy	.579*	.460*	.403*	.352*
Vicarious Learning	.014	.011	.011	.009
Verbal Persuasion	.214*	.240*	.203*	.166*
Emotional Arousal Positive	.014	.014	.013	.010
Emotional Arousal Negative	.025	.031	.031	.025
Performance Accomplishments	-.022	-.019	-.016	-.013

\* $p < .05$



*Figure 2.* Model of results implying influence of the sources of career self-efficacy on career self-efficacy beliefs and career exploration behaviors.

## DISCUSSION

This research examined the influence of the sources of career self-efficacy beliefs on career exploration behaviors. The results of this study supported the hypothesis that the sources of career self efficacy beliefs correlate with and predict career exploration. These results are consistent with past research which has also shown that a significant relationship exists between career self-efficacy and career exploration activities (Betz and Voyten, 1997; Blustein, 1989; Dawes et al., 2000; Foltz & Luzzo, 1998; Van Ryn & Vinokur, 1992). In addition, results of the current study supported the hypothesis that past performance accomplishments were the strongest predictor of career self-efficacy. These results are also similar to past research (Bandura, 1977, 1986; Dawes, et al., 2000; Lane

et al., 2002; Niles & Sowa, 1992; Sterrett, 1998) which found past performance accomplishments to be the strongest predictor of career self-efficacy. Results however, did not support the hypothesis that past performance accomplishments would be the strongest predictor of career exploration. Past research support was not available on which of the sources of career self-efficacy had the greatest influence on career exploration, however past research has supported that all four sources of self-efficacy in general can influence career exploration (Bandura, 1982).

When comparing the differences of the semipartial correlation results, in addition to career self-efficacy, the sources of career self-efficacy that were the strongest predictors of career exploration were verbal persuasion, performance accomplishments, and emotional arousal negative. Although all five source variables were shown to be significantly correlated to and predictive of career exploration, some accounted for more variance when all the sources were together. These seemingly significant variables were reported as unique variables to differentiate them from the other sources that did not stand out. It should be understood however, that multicollinearity was present in the analyses results due to items on Career Decision Self-Efficacy Scale and Career Exploration Survey overlapping. This may have caused some of the five sources to falsely appear insignificant when included in the models, when they were actually significant (Pedhazet, 1982).

Limitations of the study included that the participant sample was primarily Caucasian female college students in their early 20's, most likely looking for first time jobs. Due to the developmental career stage college students are typically in, they often lack experience with past performance accomplishments in a career. Past performance

accomplishments may tend to be a stronger source of career self-efficacy for later adults who have often more job experience. This could explain why results of the current study supported that verbal persuasion was the strongest source of career exploration for this population. Therefore, attention to the unique developmental characteristics of the student population is needed when studying them in relation to career constructs. The student population is also a critical population to study in terms of career self-efficacy and career exploration, since high levels of both are beneficial for students to secure desired employment after they graduate. As a result, caution should be used when generalizing these results to non college populations.

Another potential drawback of this study was that all surveys were given at one time which can have an effect on method variance and consistency. In spite of these above limitations, the results of this study contribute to the career psychology field because they provide knowledge about the sources self-efficacy beliefs and their influence on career exploration behaviors. An additional important issue arising from this research is that it emphasizes the need for supportive interventions to enhance the sources of career self-efficacy beliefs and career exploration. The need for counselor support is discussed further in the following sections.

### ***Counselor Support for the Career Development Process***

Results of the current study imply that external support to build career self-efficacy beliefs and exploration are truly beneficial to the career process. In fact, past research has shown that career counseling is very helpful in modifying career self-efficacy beliefs (Foltz & Luzzo, 1998), and increasing career exploration (Taveira & Moreno, 2003). Assisting individuals' in becoming more aware of their career

self-efficacy can increase these beliefs, and help avoid previous unsuccessful career behavior (Betz & Taylor, 2001). In fact, Taveira and Moreno (2003) believed it is essential that counselors know how career self-efficacy impacts career exploration in order to effectively assist with career growth. In addition, since career self-efficacy influences the career behaviors individuals pursue or avoid, it is important counselors that help clients differentiate between careers they are not interested in; from those they truly lack self-efficacy for (Betz & Hackett, 1981). Counselors should help clients' engage in active and self-determined career exploration, while minimizing biased information so that they do not prematurely rule out possible career options (Blustein, 1992). Individuals therefore should be encouraged to visit their local or school career counseling centers to address their career needs and obtain support for career development.

### ***Counseling Techniques to Modify Sources of Self-Efficacy Information***

The current study strongly suggests the need for counselors to utilize the sources of career self-efficacy when addressing and understanding career self-efficacy beliefs and exploration behaviors. Results of this study also suggest that in addition to career self-efficacy, past performance accomplishments, verbal persuasion, and negative emotional arousal are the strongest predictors of career exploration. In response, this implies that it is important for counselors to challenge clients' negative emotional arousal with positive verbal persuasion, to increase career self-efficacy and the possibility of future career performance accomplishments. Career counselors need to challenge client's low career self-efficacy expectations by using the sources career self-efficacy to increase their willingness to consider a wider range of career options (Rotberg et al., 1987, Bandura, 1977, 1982, 1986). With this in mind, counselors should learn and implement

appropriate techniques to address the sources behind career self-efficacy and career exploration, to increase the effectiveness of their treatment.

According to research, the first and most powerful career intervention can be structuring successful *past performance accomplishments* (Betz, 1992). Counselors can process with clients their past career mastery experiences and assist them in creating new ones (Sullivan & Mahalik, 2000). This can be done by setting clients up with courses or workshops that focus on the client's skills and success is guaranteed (Betz, 1992). Counselors can also encourage clients to seek performance accomplishment opportunities by getting involved with internships, school-to-work programs, or volunteer work (Sullivan & Mahalik, 2000). Counselors should also utilize *verbal persuasion* and encouragement, and seek to strengthen clients' career self-efficacy beliefs by expressing confidence in their capabilities (Betz, 1992). This kind of support from counselors around goal setting and reinforcing that they can meet those career goals can be very beneficial (Betz, 1992). By providing active verbal support, clients can learn to try on new career roles, explore more options, and overcome both internal and external career barriers (Sullivan & Mahalik, 2000). So, both past successes and verbal encouragement from others can ultimately have a big influence on individual's career outlook.

Counselors can also encourage positive *vicarious learning* by providing clients ways to hear other successful individuals share stories of how they overcame career obstacles and achieved successes (Sullivan & Mahalik, 2000). They can promote observational learning by finding "role models" in career areas client's fear pursuing (Betz, 1992). Films, videos, and books can all be used to provide alternatives to finding people to speak in person (Betz, 1992). Furthermore, counselors can help clients manage

their *emotional arousal* related to careers by teaching anxiety management, relaxation techniques, and more positive self-talk (Sullivan & Mahalik, 2000; Betz, 1992). Counselors should teach clients how to be more aware of negative self-talk, monitor these self-defeating thoughts, and consciously stop them (Sullivan & Mahalik, 2000; Betz, 1992). They should teach clients to replace negative thoughts with task-focused ones, so hopelessness associated with career tasks can be avoided (Sullivan & Mahalik, 2000; Betz, 1992). Enhancing vicarious learning and reducing negative emotional arousal are therefore important factors in furthering one's career in a positive direction.

In conclusion, this study makes a positive contribution to research and enhances awareness about how the sources of career self-efficacy beliefs can positively and negatively influence how active one is in seeking a career, therefore increasing chances for achieving career satisfaction. It is also important that individuals be assisted in understanding and improving their career self-efficacy beliefs, and in effectively exploring compatible career options to help them in the complex process of career development, planning, and preparation. The limitations of this study suggest that future research is needed on the influence of the sources of career self-efficacy on job seeking among culturally diverse populations and different age groups. Future research might also want to look at how the influence of the sources of career self-efficacy can differ for people based on the developmental stages they are in. Finally, more research is needed on the new Career Self-Efficacy Sources Scale.

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## Footnotes

<sup>1</sup> In total, 492 people viewed the study and/or attempted to participate in it, but only the 259 participants who answered questions beyond the demographics were included. Overall, 235 participants completed the whole study and answered all three surveys, whereas 24 participants completed the first two self-efficacy surveys but did not answer the third and final exploration survey. These 24 participants were still included in the study, but solely to measure and analyze their self-efficacy and not their exploration. An additional 233 students had attempted to participate in this study, but were excluded because they did not complete the whole study.

## Appendix A

### **Recruitment Email**

Hello, my name is Kristen Nasta and I am a SUNY New Paltz student who is conducting a research study. I am interested in your beliefs about your career search and would greatly like you to participate in it! It will only take 15-20 minutes of your time, so why not give it a try? You may just find it rewarding!

To begin this study, please follow the link below:

<http://www.surveymonkey.com/s.asp?u=468632245128>

## Appendix B

### **Introduction**

(First Page of Survey)

This is a research study to explore students' beliefs about career searches. There are three short surveys to be completed that should take about 15-20 minutes. I will not ask for your name on the surveys and your data will not be linked to you personally. Your participation is completely voluntary. You may stop participating at any time if you choose.

If you have any questions about the study, please contact Kristen Nasta at [nasta53@newpaltz.edu](mailto:nasta53@newpaltz.edu)

Appendix C

**Demographic Info**

*Please choose or fill in the correct answer.*

**Gender:** Male Female

**Age:**

**Race/Ethnicity:** African American or Black  
Caucasian or White  
Hispanic  
Asian  
Other

**Year in School:** Freshman Sophomore Junior Senior Graduate Student

**Major Category:** College of Liberal Arts & Sciences  
School of Science & Engineering  
School of Fine & Performing Arts  
School of Education  
School of Business  
Undecided

## Appendix D

### **Career Self-Efficacy Sources Scale (CSESS)**

*Please read each statement closely and respond by checking off how often if at all, each statement occurs for you:*

1. I see other students like me get good jobs after college.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

2. Based on my performance in college, I believe I'll be successful at searching for a job.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

3. I feel really great when I am doing things to find a career.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

4. People tell me that I should find a job easily.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

5. I get a sinking feeling when I think of working on my job search.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

6. I have done well in the past in finding jobs.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

7. I care about getting a good job, but I don't worry too much about it.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

8. People in my family have been successful in their job searches, and it has paid off for them in their careers.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

9. My teachers or advisors encouraged me to apply myself towards getting a job.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

10. Job searching always makes me nervous.

(1) Never    (2) Rarely    (3) Sometimes    (4) Often    (5) Very Often

11. I see people like me overcoming career challenges in getting jobs.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
12. People who know what it takes to get a good job, tell me they believe I will be successful.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
13. I feel a sense of satisfaction when I work on looking for a job.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
14. I see my peers doing well in their job searches.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
15. I get so anxious about my job search that my mind often goes blank or I am too distracted to think clearly.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
16. I believe I am bright enough to do what is necessary to find a job.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
17. When I am working on my job search my heart beats fast and my palms get sweaty.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
18. Parents of my friends have praised or recognized my job search efforts.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
19. I have strong positive feelings when I work on my job search.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often
20. Based on my past experience, I feel I have the necessary skills to find a good job.  
(1) Never (2) Rarely (3) Sometimes (4) Often (5) Very Often

### CSESS Subscales

#### **Vicarious Learning**

1. I see other students like me get good jobs after college.
8. People in my family have been successful in their job searches, and it has paid off for them in their careers.
11. I see people like me overcoming career challenges in getting jobs.
14. I see my peers doing well in their job searches.

#### **Verbal Persuasion**

4. People tell me that I should find a job easily.
9. My teachers or advisors encouraged me to apply myself towards getting a job.
12. People who know what it takes to get a good job, tell me that they believe I will be successful.
18. Parents of my friends have praised or recognized my job search efforts.

#### **Emotional Arousal (+)**

3. I feel really great when I am doing things to find a career.
7. I care about getting a good job, but I don't worry too much about it.
13. I feel a sense of satisfaction when I work on looking for a job.
19. I have strong positive feelings when I work on my job search.

#### **Emotional Arousal (-)**

5. I get a sinking feeling when I think of working on my job search.
10. Job searching always makes me nervous.
15. I get so anxious about my job search that my mind often goes blank or I am too distracted to think clearly.
17. When I am working on my job search my heart beats fast and my palms get sweaty.

#### **Performance Accomplishments**

2. Based on my past experience, I feel I have the necessary skills to find a good job.
6. I have done well in the past in finding jobs.
16. I believe I am bright enough to do what is necessary to find a job.
20. Based on my performance in college, I believe I will be successful at searching for a job.

## Appendix E

### **Career Decision Self-Efficacy Scale-Short Form (CDSE-SF)**

*For each statement below, please read carefully and indicate how much confidence you have that you could accomplish each of these tasks by marking your answer according to the key.*

NO CONFIDENCE AT ALL 1	VERY LITTLE CONFIDENCE 2	MODERATE CONFIDENCE 3	MUCH CONFIDENCE 4	COMPLETE CONFIDENCE 5
------------------------------	--------------------------------	-----------------------------	-------------------------	-----------------------------

Example: How much confidence do you have that you could:

- a. Summarize the skills you have developed in the jobs you have held?

If your response was "Moderate Confidence," you would fill out the number 3 on the answer sheet.

HOW MUCH CONFIDENCE DO YOU HAVE THAT YOU COULD:

1. Find information in the library about occupations you are interested in.
2. Select one major from a list of potential majors you are considering.
3. Make a plan of your goals for the next five years.
4. Determine the steps to take if you are having academic trouble with an aspect of your chosen major.
5. Accurately assess your abilities.
6. Select one occupation from a list of potential occupations you are considering.
7. Determine the steps you need to take to successfully complete your chosen major.
8. Persistently work at your major or career goal even when you get frustrated.
9. Determine what your ideal job would be.
10. Find out the employment trends for an occupation over the next ten years.
11. Choose a career that will fit your preferred lifestyle.
12. Prepare a good resume.
13. Change majors if you did not like your first choice.

14. Decide what you value most in an occupation.
15. Find out about the average yearly earnings of people in an occupation.
16. Make a career decision and then not worry whether it was right or wrong.
17. Change occupations if you are not satisfied with the one you enter.
18. Figure out what you are and are not ready to sacrifice to achieve your career goals.
19. Talk with a person already employed in a field you are interested in.
20. Choose a major or career that will fit your interests.
21. Identify employers, firms, and institutions relevant to your career possibilities.
22. Define the type of lifestyle you would like to live.
23. Find information about graduate or professional schools.
24. Successfully manage the job interview process.
25. Identify some reasonable major or career alternatives if you are unable to get your first choice.

CDMSE-SF Subscales

Scale 1: Self-Appraisal -- Items 5, 9, 14, 18, 22

Scale 2: Occupational Information -- Items 1, 10, 15, 19, 23

Scale 3: Goal Selection -- Items 2, 6, 11, 16, 20

Scale 4: Planning -- Items 3, 7, 12, 21, 24

Scale 5: Problem Solving -- Items 4, 8, 13, 17, 25

Appendix F

**Career Exploration Survey-Revised (CES-R)**

*To what extent have you behaved in the following ways over the last 3 months?*

1. Experimented with different career activities.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

2. Sought opportunities to demonstrate skills.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

3. Tried specific work roles just to see if I liked them.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

4. Investigated career possibilities.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

5. Went to various career orientation programs.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

6. Obtained information on specific jobs or companies.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

7. Gathered information on job trends, salaries, and general job opportunities in my career area.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

8. Sought information on specific areas of career interest.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

*To what extent have you done the following in the past 3 months?*

9. Reflected on how my past integrates with my future career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

10. Focused on my thoughts on me as a person in relation to my career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

11. Contemplated my past in relation to my career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

12. Been retrospective in thinking about my career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

13. Understood a new relevance of past behavior for my future career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

14. Participated in an internship, practicum, fieldwork, or volunteer opportunities in a career field I am interested in.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

15. Participated in practice interviews.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

16. Sought career advice from a teacher or Academic Advisor.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

17. Been to the Career Resource Center on campus to obtain career guidance and/or explore your career options.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

18. Done online searches to obtain career information.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

19. Sent out resumes to employers and/or posted them online.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

20. Attended job fairs or interviewed with employers on campus.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

21. Written and/or sent letters of inquiry, or telephoned potential employers to make employment contacts.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

22. Spoke to family, friends, or community about career advice.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

23. Gathered information regarding additional education or training needed for your career.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

24. Taken coursework related to a career you are interested in.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

25. Took career tests to analyze and assess your interests, abilities and/or values.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

26. Thought about what career would be best for me.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

27. Thought about how my major fits with my career goals.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

28. Established career plans for the future.

(1) Never (2) Somewhat (3) A Moderate Amount (4) A Substantial Amount (5) A Great Deal

## CES-R Subscales

### **Intended-Systematic Exploration**

1. Experimented with different career activities.
2. Sought opportunities to demonstrate work skills.
3. Tried specific work roles just to see if I liked them.
14. Participated in an internship, practicum, fieldwork, or volunteer opportunities in a career field I am interested in.
15. Participated in practice interviews.

### **Environment Exploration**

4. Investigated career possibilities.
5. Went to various career orientation programs.
6. Obtained information on specific jobs or companies.
7. Gathered information on job trends, salaries, and general job opportunities in my career area.
8. Sought information on specific areas of career interest.
16. Sought career advice from a teacher or Academic Advisor.
17. Been to the Career Resource Center on campus to obtain career guidance and/or explore
18. Done online searches to obtain career information.
19. Sent out resumes to employers and/or posted them online.
20. Attended job fairs or interviewed with employers on campus.
21. Written and/or sent out letters of inquiry, or telephoned potential employers to make employment contacts.
22. Spoke to family, friends, or community about career advice.
23. Gathered information regarding additional education or training needed for your career.
24. Taken coursework related to a career you are interested in

### **Self-Exploration**

9. Reflected on how my past integrates with my future career.
10. Focused on my thoughts on me as a person in relation to my career.
11. Contemplated my past in relation to my career.
12. Been retrospective in thinking about my career.
13. Understood a new relevance of past behavior for my future career.
25. Took career tests to analyze and assess your interests, abilities and/or values.
26. Thought about what career would be best for me.
27. Thought about how my major fits with my career goals.
28. Established career plans for the future.

## Appendix G

### **Concluding Statement:**

Thank you for participating in my Thesis!

Career Advising and exploration resources are available to you at the SUNY Career Resource Center if you are interested! It is located in the HAB 705 or you can reach them by phone at (845) 257-3265 or email at [www.newpaltz.edu/careers](http://www.newpaltz.edu/careers).

