EXPLORING THE RELATIONSHIP
BETWEEN SELF-EFFICACY BELIEFS
AND PURPOSE IN LIFE

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

S. Joseph DeWitz, M.A.

*****

The Ohio State University
2004

Dissertation Committee:

Professor W. Bruce Walsh, Adviser
Professor Don M. Dell
Professor Richard K. Russell

Approved by

Adviser
Department of Psychology
ABSTRACT

Viktor Frankl’s (1985, 1988) system of logotherapy is used by professionals in diverse settings for helping individuals with a wide range of concerns experience more meaningful lives. Frankl (1988) was clear regarding the types of behavior necessary for gaining and maintaining purpose in life (e.g., encountering people, dealing with suffering). However, Frankl and other practitioners of logotherapy are less explicit concerning how individuals actually go about engaging in the necessary behaviors for improving their subjective sense of purpose in life. On the other hand, other researchers have utilized Bandura’s (1977, 1997) theory of self-efficacy for understanding the dynamics of various behaviors. At this time, there is virtually no empirical research looking at the association between self-efficacy and purpose in life. The following research initiates the exploration of the direct relationships between several forms of self-efficacy beliefs relevant to a college student population (i.e., college, social, and general) and purpose in life. The introduction begins by detailing Frankl’s logotherapy with emphasis on the construct of purpose in life followed by a basic overview of Bandura’s theory of self-efficacy. Following the introduction is a review of the empirical literature concerning purpose in life and self-efficacy theory. Lastly, the method, results and discussion chapters explore the association between self-efficacy and purpose in life.
Results supported significantly positive associations between self-efficacy beliefs and purpose in life. Furthermore, hierarchical regression revealed that the measure of general self-efficacy accounted for the greatest amount of variance in reports of purpose in life. Regression analyses also revealed that after general self-efficacy, college and social self-efficacy accounted for modest, but significant, additional, unique variance in participants’ reports of purpose in life. Implications, limitations and directions for future research of the study are discussed.
Dedicated to my mother, R. Layne DeWitz, and family and to my beautiful wife, Rebekah
ACKNOWLEDGMENTS

I wish to first express gratitude to my advisor, Dr. W. Bruce Walsh, for his guidance and support on this research. His kindness, experience and knowledge were central throughout the process.

I thank the members of my dissertation committee, Dr. Don M. Dell and Dr. Richard K. Russell, for their time and patience during this project.

I also want to express my appreciation to my research assistants, Cristian Shofar and Nathan Jones. Their efforts were central to the data collection phase of this project.

I am indebted to Mark Sampson and Daniela Linnebach for their support, feedback and humor throughout the dissertation process. Their presence during the many weekends at the library made the endeavor far more easy and enjoyable.

I wish to thank my mother, my wonderful family and Shirley Burnett for their love, support and wisdom; without them I never could have made it this far.

Finally, I am grateful for the love, encouragement and support of my best friend, Dr. Tina Harrison.
VITA

October 19, 1969…………………………………………Born – Bellingham, Washington

1993……………………………………….B.A., Business Administration, University of Washington

1995-1996………………………………………………………………Research Assistant
Department of Psychiatry
Oregon Health Sciences University

1996…………………………………………………………M.A., Counseling Psychology, Lewis and Clark College

1996-1998……………………………………………………………..Counselor/Case Manager
Tualatin Valley Centers
Portland, Oregon

1998-1999…………………………………………………………….Counselor/Case Manager
Columbia Community Mental Health
St. Helens, Oregon

2000…………………………………………………………………..Counselor Trainee
Psychological Services Center
The Ohio State University

2000-2001………………………………………………………Graduate Teaching Associate
Department of Psychology
The Ohio State University

2000-2001………………………………………………………Graduate Research Assistant
Department of Psychiatry
The Ohio State University

2002…………………………………………………………………..Clinical Supervisor
Department of Psychology
The Ohio State University

2000-2003…………………………………………………………Psychology Trainee
Counseling and Consultation Service
The Ohio State University
PUBLICATION


FIELD OF STUDY

Major Field: Psychology
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>ii</td>
</tr>
<tr>
<td>Dedication</td>
<td>iv</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>v</td>
</tr>
<tr>
<td>Vita</td>
<td>vi</td>
</tr>
<tr>
<td>List of Figures</td>
<td>x</td>
</tr>
<tr>
<td>List of Tables</td>
<td>xi</td>
</tr>
<tr>
<td>Chapters:</td>
<td></td>
</tr>
<tr>
<td>1. Introduction</td>
<td>1</td>
</tr>
<tr>
<td>2. Literature Review</td>
<td>12</td>
</tr>
<tr>
<td>3. Method</td>
<td>31</td>
</tr>
<tr>
<td>4. Results</td>
<td>38</td>
</tr>
<tr>
<td>5. Discussion</td>
<td>44</td>
</tr>
<tr>
<td>List of References</td>
<td>52</td>
</tr>
<tr>
<td>Appendices</td>
<td></td>
</tr>
<tr>
<td>A. Purpose In Life Test</td>
<td>60</td>
</tr>
<tr>
<td>B. College Self-Efficacy Inventory</td>
<td>63</td>
</tr>
<tr>
<td>C. Scale of Perceived Social Self-Efficacy</td>
<td>65</td>
</tr>
</tbody>
</table>
D. General Self-Efficacy Subscale ......................................................... 67
E. Marlowe-Crowne Social Desirability Scale ........................................... 69
F. Written Instructions to Participants ......................................................... 71
G. Demographic Questionnaire ................................................................. 73
H. Debriefing Sheet for Research Participants .............................................. 74
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>6</td>
</tr>
<tr>
<td>1.2</td>
<td>9</td>
</tr>
</tbody>
</table>

1.1 Illustration of Frankl’s (1985, 1988) purpose in life concept

1.2 A depiction of Bandura’s (1977, 1997) perceived self-efficacy theory; as adapted from Betz (2000)
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>The Means, Standard Deviations and t-Values For Males and Females on the Measures</td>
</tr>
<tr>
<td>4.2</td>
<td>Intercorrelations Between Self-Efficacy Scores, Purpose in Life and Social Desirability</td>
</tr>
<tr>
<td>4.3</td>
<td>Model Summary of Hierarchical Regression Analysis for the Prediction of Purpose in Life</td>
</tr>
<tr>
<td>4.4</td>
<td>ANOVA Results for Upper and Lower Self-Efficacy Groups for Purpose in Life</td>
</tr>
<tr>
<td>4.5</td>
<td>ANOVA Results for Upper and Lower Self-Efficacy Groups for Social Desirability</td>
</tr>
</tbody>
</table>
CHAPTER 1

INTRODUCTION

Victor Frankl (1985, 1988) theoretically posited that the search for meaning, or *will to meaning*, is the primary motivating force in the lives of all individuals. Healthy individuals are those who find and maintain meaning or purpose in their lives (meaning and purpose are used interchangeably throughout this paper). Based on Frankl’s (1985) theory, meaningfulness (i.e., a life with purpose) is an individual’s belief that his or her life is significant. A sense of significance could come from any area or combination of areas in an individual’s life (e.g., work/school, relationships, spirituality, how a person deals with suffering). Frankl (1985) put forth that without a sense of meaning, an individual would experience *existential vacuum*. Existential vacuum, according to Frankl, is primarily manifested as boredom, and to a slightly lesser extent, distress or anxiety. Existential vacuum is particularly problematic in modern times as values and traditions become less clear (Frankl, 1988). If left unexamined or untreated, existential vacuum is likely to worsen and become a more chronic problem Frankl (1985) referred to as *noogenic neurosis*. Frankl made the point that noogenic neurosis is primarily an existential problem, specifically, a problem with meaning or lack of meaning. An individual experiencing existential vacuum or noogenic neurosis is best served utilizing
logotherapy. Frankl (1985, 1988) developed logotherapy as a system for understanding how people develop and maintain meaning in their lives. Logotherapy has been used over the past 40 years by a variety of mental health practitioners from diverse disciplines in a wide range of settings.

Logotherapy assumes that gaining a sense of meaning or purpose in life is a vital process whether an individual is seeking it on his or her own or with the help of a mental health professional (Frankl, 1985, 1988). Individuals can actively work to imbue their lives with meaning through the behaviors in which they engage daily. Based on logotherapy (Frankl, 1985), there are three primary ways individuals find meaning. First, individuals can find meaning while engaging in work or school or other daily activities. Therefore, simply by performing the behaviors of a routine day it is possible, although not guaranteed, that an individual will gain and maintain some sense of meaning. An example of gaining a sense of purpose from daily activities is the effect that being a part of a job has on an individual’s identity (e.g., I am a fireman, I am a psychologist, my life has purpose because I save people from fires or I help people with their emotional problems). Of course it is a given that an activity should have some significance or importance for an individual in order for that individual to gain some sense of meaning from it. Many activities of daily living (e.g., eating, driving) usually do not greatly influence an individual’s sense of purpose, although it is possible that the most mundane activities could contribute to someone’s meaning structure under the right circumstances. For example, most individuals take driving a car for granted; however, when they first learned to drive, it was a significant activity that likely had importance for them.
Individuals may also find meaning by experiencing or encountering something or someone. Based on logotherapy (Frankl, 1985), this second means of finding meaning has two aspects. The first aspect is the *experiencing* of something, that is, face-to-face contact with an object or situation in the environment (e.g., music, art, nature). Experiencing a thing, such as music, may subtly alter and add to an individual’s sense of meaning by influencing his or her thoughts and/or emotions. The other aspect of this second approach is the *encountering* of people, that is, coming in contact and interacting with other individuals (e.g., family, friends, coworkers). Therefore, an individual must engage in behaviors that bring him or her in contact with things and/or people. As with the first domain of behavior (i.e., activities of daily living), the second means of gaining purpose depends on the significance of the experience or encounter for the individual. As one might expect, sitting next to a stranger at a bus stop is less likely to generate a sense of meaning for an individual than having an important conversation with a member of one’s family.

The third, and possibly more obscure, approach for finding meaning addresses how individuals cope with suffering. According to Frankl (1985), when individuals are confronted with difficult or even tragic events in their lives, they could overcome those situations mentally and/or physically or they may fail to overcome those situations. Overcoming a challenging situation would likely lead to a greater sense of meaning while failing to overcome a difficult situation is unlikely to increase an individual’s sense of purpose in life (Frankl; Lantz, 1993). As a matter of fact, individuals who fall short in overcoming suffering may even experience a loss of purpose in life. For example,
parents who lose a child may feel that life is purposeless, or, conversely, they may deepen their spirituality and create greater meaning in their lives (note: purpose in life is not automatically equated with happiness, even tragedy could lead to a greater sense of meaning). Frankl made the point that these three ways, or domains of behaviors, for developing and maintaining purpose in life may influence different individuals in different ways at different times.

At certain times the experiences of a day may have a subtle effect on an individual (e.g., routine, daily behaviors) and may only serve to maintain a certain level of meaning. A police officer is likely to develop an identity as a police officer, which in turn gives his or her life a degree of purpose. At times, his or her day may seem routine to the point of boredom, such as when there is a lot of paperwork, and at these times the purpose he or she feels in life may be subtle. At other times, the police officer’s day may include unusual experiences, such as being shot at or stabbed in the line of duty, and this may cause a more significant shift in his or her sense of purpose in life. An individual who comes close to dying by being shot at, even a police officer, may experience the need to reevaluate his or her priorities, which in turn will likely affect his or her sense of purpose.

The three behavioral domains formulated by Frankl (1985) for gaining and maintaining meaning are usually not mutually exclusive. It could be understood that being shot at is significant as an activity and is an opportunity to deal with tragedy (especially if the individual is wounded). However, dividing behaviors into certain
categories is helpful for focusing in on the particular aspects of those behaviors significant for developing purpose in life (e.g., interacting with people v. listening to music).

Logotherapy has been utilized in a wide variety of settings with diverse populations for over 40 years. For example, Lantz and Lantz (2001) have used logotherapy in their practice for dealing with various kinds of trauma (e.g., chronic health issues). Similarly, logotherapy has been used for helping Vietnam Veterans deal with the traumatic experiences of war (Lantz & Gregorie, 2000) as well as helping other individuals deal with post-traumatic stress disorder (Lantz, 1992). The concepts of logotherapy have recently been applied to diverse issues such as headache pain (van Pelt, 2001), pathological Internet use (Schulenberg, 2001), grief and mourning (Haines, 2000), therapist self-care (Ungar, Mackey, Guest, & Bernard, 2000), drug and alcohol abuse (Noblejas de la Flor, 1997; Haines, 1997), and even student school avoidance in Japan (Kanahara, 2001). In each of the above articles, developing and maintaining a sense of purpose in life was a central focus. Empirical research exploring and supporting the significance of purpose in life is presented in the following chapter, the literature review.

In summary to this point, individuals could actively increase their purpose in life whether they are, 1) going about their daily activities, 2) experiencing things or encountering people, and/or 3) dealing with suffering (see Figure 1.1). It is likely that most individuals gain and maintain meaning through some combination of the aforementioned types of activities. After all, a person would find it difficult avoiding all activities, things, people, and suffering. Although there is no guarantee that participating
Domains of Behavior

- Meaningful Activities of Daily Living
- Experiencing Things/Encountering People
- Overcoming v. Not Overcoming Suffering

Purpose In Life

Figure 1.1: Illustration of Frankl’s (1985, 1988) purpose in life concept
in the necessary behaviors will increase purpose in life, it is unlikely an individual could find meaning without those behaviors. Logotherapy is explicit about the behavioral domains by which individuals gain and maintain meaning. However, logotherapy is considerably less clear with regards to understanding whether individuals are likely to approach, persist at, or perform those behaviors. On the other hand, Bandura’s (1977, 1997) theory of self-efficacy has proven to be a powerful construct for better understanding the dynamics of human behavior.

Researchers have explored the utility of Bandura’s (1977, 1997) theory of self-efficacy in a wide range of settings for understanding behavior for over 20 years. Self-efficacy is essentially an individual’s belief in his or her ability to perform a specific task or behavior. Bandura (1997) emphasized that self-efficacy is not a general quality possessed by individuals, but rather specific beliefs an individual may have around particular tasks or behaviors. For example, an individual with higher social self-efficacy is said to have greater confidence in his or her ability to interact with others socially. Self-efficacy beliefs come from several different informational sources and influence certain behavioral outcomes.

According to Bandura (1977, 1997), an individual may gain a greater sense of self-efficacy from four informational sources, they are: 1) performance accomplishments, 2) vicarious learning, 3) social persuasion, and 4) emotional arousal. Performance accomplishment is based on an individual’s past success in performing a task or behavior. If an individual has already performed a certain behavior well, then he or she is likely to have stronger self-efficacy beliefs with regards to that behavior. Bandura (1997) posited
that performance accomplishment, or *enactive mastery*, is the most influential source for self-efficacy beliefs. A second source of self-efficacy is *vicarious learning*. Vicarious learning takes place when an individual observes and learns from the behaviors of others. If an individual observes someone else doing well at a particular task of interest, he or she is more likely to engage in that same task. Vicarious learning is usually more effective if the other individual modeling the behavior is similar to the observer and if the other individual is rewarded for his or her efforts. *Social persuasion* is the third primary informational source for self-efficacy beliefs. If others give an individual reinforcement for a behavior, then he or she is likely to have higher self-efficacy for that behavior. Therefore, encouragement is a powerful tool for increasing self-efficacy beliefs in others. A final source influencing self-efficacy beliefs is physiological and affective states. Bandura (1997) indicated that emotional/somatic information is especially significant for behaviors involving health functioning, coping with stressors, and physical accomplishments. Individuals utilize both their moods and their bodily sensations when formulating their self-efficacy beliefs for certain behaviors. If an individual engages in a particular behavior and experiences distressing sensations, for example anxiety, he or she is usually less likely to participate in that behavior again. These four sources of self-efficacy beliefs directly impact several behavioral outcomes.

The three primary behavioral outcomes influenced by self-efficacy beliefs are: 1) approach versus avoidance, 2) performance, and 3) persistence (Bandura, 1977, 1997). An individual with high self-efficacy for a particular behavior is more likely to approach, better perform, and persist at that behavior. On the other hand, an individual with low
Figure 1.2. A depiction of Bandura’s (1977, 1997) perceived self-efficacy theory; as adapted from Betz (2000).
self-efficacy for a specific behavior is less likely to approach, perform well and/or persist at that behavior. Figure 1.2 gives a visual representation of the interactions between the sources and outcomes of self-efficacy beliefs.

**Purposes of the Study**

Logotherapy has great potential for helping individuals live happier, more productive lives. Frankl’s (1985, 1988) concept of purpose in life is particularly important for understanding how individuals might gain and maintain a greater sense of well-being. Frankl (1985) made clear the necessary domains of behavior for developing an increased sense of purpose in life (e.g., encountering people, dealing with suffering). Evidence supports that the behavioral domains Frankl (1985) described are significantly associated with purpose in life (e.g., Barnes, 1994; Crumbaugh & Maholick, 1964; Debats, Drost, & Hansen, 1995; Pearson & Sheffield, 1974; Shantall, 1999).

Additionally, other researchers have utilized Bandura’s (1977, 1997) theory of self-efficacy for understanding the dynamics of behavior (e.g., Betz, 2000; Hackett & Betz, 1981; Lent, Brown, & Hackett, 1994).

Bandura (1997) has accumulated data substantiating a significant association between self-efficacy beliefs and the likelihood that individuals will engage in, persist at, and perform well a multitude of specific behaviors (see pp. 36-78). However, there is virtually no research looking at the direct association between self-efficacy beliefs and purpose in life. The present study was designed for initial exploration regarding the relationship between various kinds of self-efficacy beliefs and purpose in life in a college student population. It was hypothesized that self-efficacy beliefs are significantly
associated with purpose in life. Individuals reporting higher self-efficacy, especially beliefs relative to a college population (e.g., college, social, and general self-efficacy), would likely report greater purpose in life. The next chapter is a review of the literature related to purpose in life and self-efficacy.
CHAPTER 2

LITERATURE REVIEW

Introduction

The present chapter begins by focusing on the literature regarding purpose in life, with emphasis on research utilizing the Purpose-In-Life Test (Crumbaugh & Maholick, 1964). Additionally, the literature related to vocational and academic self-efficacy is reviewed.

Purpose In Life

In the mid-sixties Crumbaugh and Maholick developed the Purpose-In-Life Test (PIL Test) as an attitude scale based on Frankl’s (1955, 1959) system of logotherapy. The main purpose of the PIL Test was the quantification of individuals’ will to meaning or purpose in life (Crumbaugh & Henrion, 1988; Hutzell, 1988). Frankl (1985) posited that existential vacuum is not in itself a neurosis or abnormality, but rather a human condition, characteristic of the machine age and loss of individual initiative. Phillips (1980) stated, “an operational definition of existential vacuum to be employed in the clinic would be expected to be both related to the level of psychological functioning of the individual and to discriminate meaningfully between those who have found an experienced purpose or meaning and those who have not yet made this discovery”
Present day psychologists may have caseloads where 20% of their patients are suffering from noogenic neurosis, but over half of the population in general suffers from some degree of existential vacuum (Crumbaugh & Henrion, 1988). The aim of the PIL Test is detecting the level of existential vacuum in an individual’s life, whether large or small.

As Hutzell (1988) pointed out in his extensive review of the measure, the PIL Test was developed for empirically supporting Frankl’s (1985, 1988) concept that the central human motive is finding purpose in life. The scale consists of three parts. The first part is 20 items asking the reader to rate whether he or she agrees with various statements on a Likert-type scale from one to seven. According to Hutzell, the first part is the objective portion of the test, and total scores range from 20 to 140, representing low to extremely high purpose in life. The second part of the scale is a 13-item incomplete sentences test, the third part asks the respondent to write a paragraph detailing his or her aims, ambitions, goals in life, and the progress he or she feels is being made on each. The last two parts are subject to clinical interpretation, while the first part is objectively scored. The first part, or part A, can be used alone and is typically the only part used in the research literature due to its quantitative, objective nature (Crumbaugh & Henrion, 1988, Hutzell, 1988). Ebersole, Levinson and Svensson (1987) have advocated for greater use of the second and third parts of the PIL Test, however, part A remains the almost exclusive section used in empirical research. Most of the following studies have utilized the objective portion of the PIL Test unless otherwise specified.
Hutzell (1988) reported that as a research tool, the PIL Test has been employed “in a wide variety of settings, particularly in studies emphasizing existential, humanistic, and theological ideas” (p. 90). Most of the research has been conducted for master’s theses and doctoral dissertations (Crumbaugh & Henrion, 1988; Hutzell, 1988). However, the empirical journal literature utilizing the PIL Test is slowly building. One of the primary sources for research related to logotherapy and purpose in life outside of theses and dissertations is the journal *The International Forum for Logotherapy*, which began publication in 1978. A recent article by Hutzell (2000) reviewed the nature of the research published in the journal for logotherapy since its beginnings. Slightly less than 10% (42) of the 440 articles published in the journal up until the year 2000 utilized more rigorous correlational or experimental research methods (Hutzell, 2000). This in turn means that any review of the empirical literature is fairly restricted by the limited quantity of empirical studies. However, the literature that is available supports the validity of the PIL Test and consequently lends greater validity to the construct of purpose in life. Any review of the research on purpose in life is necessarily intertwined with the PIL Test itself. In other words, in order to review the validity of the construct of purpose in life it is necessary to review the nature and validity of the PIL Test in particular.

In the original study for creating a measure of purpose in life Crumbaugh and Maholick (1964) utilized a development sample of 225 participants from five subpopulations, including: 1) 30 non-patients, 2) 75 college undergraduate, non-patients, 3) 49 outpatients with mixed diagnoses, 4) 50 outpatients from a private, non-profit
psychiatric facility, and 5) 21 hospitalized alcoholic patients. The reasoning behind this process was that, based on Frankl’s (1955, 1959) concepts, participants in varying levels of pathology are likely to vary in their reported levels of purpose in life. Crumbaugh and Maholick hypothesized that individuals diagnosed with greater pathology would likely report lower levels of purpose in life. Twenty-five items were originally created in the development of the PIL Test, eventually half were rewritten and 22 were used in Crumbaugh and Maholick’s study. Crumbaugh and Maholick found that the PIL Test significantly discriminated between patients and non-patients. Furthermore, there was a progressive decline in mean scores from the non-patients through to group five, the hospitalized alcoholics. Individuals experiencing greater levels of psychological distress reported significantly less purpose in life.

Crumbaugh and Maholick (1964) also compared scores on the PIL Test with participants’ scores on the Frankl Questionnaire, which was developed by Frankl (1960, cf., Crumbaugh & Maholick) for clinicians to assess individuals’ “existential frustration”. The PIL Test significantly and positively correlated with scores on the Frankl Questionnaire. Individuals reporting high purpose in life also indicated lower existential frustration. As there is virtually no empirical research on the validity or reliability of the Frankl Questionnaire, it is difficult to fully interpret the significance of this particular result; however, it demonstrated the likelihood that the PIL Test closely represented Frankl’s (1955, 1959) own conception of the purpose in life construct. Not only was it important for the PIL Test to have good reliability and validity, it was also important that it assessed the construct as defined by Frankl.
Crumbaugh (1968) later conducted a study using 1151 participants for further establishing construct validity and concurrent validity for the PIL Test. In turn, the purpose of Crumbaugh’s follow up study was to further validate Frankl’s (1955, 1959) basic conception of purpose in life. A little over half were males (n = 602), with participants represented by four “normal” groups (i.e., successful business and professional personnel, Protestant parishioners, college undergraduates, and indigent hospital patients) and six psychiatric groups (i.e., outpatient neurotics, hospitalized neurotics, hospitalized alcoholics, hospitalized African American schizophrenics, hospitalized Caucasian schizophrenics, and hospitalized psychotics). The predictions were that normal groups would score higher than psychiatric groups, and within the separate categories, successful professionals and less chronic psychiatric patients would score higher than their respective counterparts.

As predicted, “normal” participants scored significantly higher on the PIL Test than psychiatric patients overall (Crumbaugh, 1968). Furthermore, for those within the normal groups, successful professionals scored higher than Protestant parishioners who scored higher than college undergraduates who in turn scored higher than indigent hospital patients. Individuals identified by the researcher as having greater success in life reported higher purpose in life. In the psychiatric category, schizophrenic participants scored higher than expected. This result was probably not unusual according to Frankl (1966, cf., Crumbaugh, 1968), due to the fact schizophrenics often create their own
realities that may be very meaningful to them, even if not based in everyday reality. The general success of these predictions further supported an argument for the construct validity of the PIL Test.

A more recent study by Chamberlain and Zika (1988) compared three scales, including the PIL Test, Life Regard Index (LRI) and the Sense of Coherence Scale (SOC). The LRI and the SOC are purported to measure aspects of well-being, specifically, beliefs that life is a positive and coherent experience respectively. Participants’ (N=194) total scores on the three scales inter-correlated at significant levels (.63 to .74), suggesting they related to different aspects of meaning in life. Furthermore, a clear one-factor solution emerged accounting for 64% of the variance. All of the measures had high loading on this one factor, which according to the researchers suggested an underlying dimension of general meaning in life. Chamberlain and Zika reported that the PIL Test appeared the most useful measure for assessing meaning out of the three scales examined. Furthermore, the results suggested that a general sense of purpose in life could be identified (Chamberlain and Zika). In a similar study, Ebersole and Humphreys (1991) compared participants’ (N=46) scores on the PIL Test with the Short Index of Self-Actualization and found they correlated significantly at .49. Individuals reporting higher purpose in life were also likely to report more elements of self-actualization. Not only did these results further support the validity of the PIL Test, they also supported the validity and usefulness of the purpose in life construct for better understanding psychological well-being.
Walters and Klein (1980) found that the PIL Test was also a useful measure for assessing adolescents’ (N=1082) general attitudes toward life. Their results further supported the construct of purpose in life as well as cross-validating the PIL Test for use with adolescents. Using factor analysis, Walters and Klein demonstrated an association between low purpose in life and the factor of despair; conversely, high purpose in life was associated with a second factor labeled enthusiasm. Walters and Klein concluded that the PIL Test was an “excellent measure of an adolescent’s general attitude toward life” (p. 1070).

In general, there is significant evidence supporting reliability and validity for the PIL Test as well as the construct of purpose in life with adolescents and adults. Phillips (1980) emphasized that the PIL Test has gained increasing validity and acceptance as a clinical measure of Frankl’s concept of existential vacuum. However, one of the primary ways the measure and the underlying construct of purpose in life continue building acceptance and demonstrating utility is by being implemented with a variety of participant populations in empirical research. The following studies further supported the versatility and significance of purpose in life for understanding the well-being of individuals.

After its creation the PIL Test continued being used with a wide range of participants in regards to various constructs and issues. Martin and Martin (1977) looked at the relationship between purpose in life and several other variables, including grade point average (GPA) and mental ability, among high school juniors and seniors (N=24). Results indicated that purpose in life is significantly related to GPA and mental ability.
High school students with higher GPA’s and greater mental ability reported more purpose in life. Phillips (1980) used college students (N=134), but looked at how PIL Test scores correlated with depression and locus of control. Students reporting a greater sense of meaning in their lives also indicated an internal locus of control and less depression. Furthermore, Sappington and Kelly (1995) conducted three studies looking at the association between purpose in life and anger problems in college students (N=67, 117, 69). The results from Sappington and Kelly’s studies demonstrated a significantly negative correlation between anger problems and purpose in life. Individuals reporting greater purpose in life experienced fewer problems with anger. The results of the above studies support an association between purpose in life as measured by the PIL Test and various elements of well-being among high school and college students. It may be that purpose in life contributes to better academic performance as well as provides protection against depression and anger problems. However, as Sappington and Kelly pointed out, these studies are correlational in nature and prevent conclusions of causality. Experimental research is needed to support the potential causal effects purpose in life may have on certain elements of well-being.

Meier and Edwards (1974) analyzed age and sex differences in PIL Test scores for participants (N=200) as young as 13 and over the age of 65. Their results found no significant sex differences for purpose in life. However, they did find significant differences in reported purpose in life between younger and older participant groups. Older participants tended to report greater purpose in life than younger participants. The difference between older and younger participants on purpose in life is consistent with
Frankl’s (1985, 1988) theoretical ideas. As individuals age, they are increasingly exposed to the domains of behavior necessary for building a sense of purpose (refer to Figure 1.1). Meier and Edwards also found no significant differences between participants from different educational levels on reported levels of purpose in life. This last result supported that, like gender, educational level may not be a significant factor when assessing purpose in life.

Coffield and Buckalew (1986) also ran a study on 230 college students looking at, among other things, sex and academic class variables. In general, there were no significant differences between males and female or between different academic class levels on purpose in life. These results further supported that gender and educational level are less significant factors when looking at degrees of meaningful living. In an earlier study by Coffield and Buckalew (1985), it was also found there were no significant differences between white Caucasians and African Americans on purpose in life. African Americans and white Caucasian Americans reported similar levels of purpose in life. Not only have various age ranges, educational levels and gender variables been researched, cross-national studies are also becoming more prevalent regarding purpose in life.

Chang and Dodder (1983-84) compared 177 retirees from the Payne County, Oklahoma school system with 202 retired teachers in Taipei, Taiwan on a modified version of the PIL Test. Results supported that the modified PIL Test was a satisfactory measure with a cross-national sample. However, these results should be interpreted cautiously in terms of the validity of the original PIL Test for use with cross-national
samples. On the other hand, Shek (1988; 1993; 1994) did look at a variety of variables with Chinese and Chinese-American participants using the Chinese version of the original PIL Test. In his first study, Shek (1988) analyzed the PIL Test scores of 2140 secondary school children in China and found the measure to have good reliability. He also compared the reports of Chinese college students on purpose in life, quality of existence and purpose of existence (Shek, 1993). Chinese students reporting higher purpose in life also indicated a greater quality of existence and greater purpose to their existence. In addition to reliability, the results of Shek’s (1993) second study supported the validity of the PIL Test and the construct of purpose in life with Chinese college students. In a third study by Shek (1994), he compared, among other variables, purpose in life, psychological well-being, parent-child relationship, and marriage quality among 90 midlife Chinese parents. Shek found that parents with a greater sense of purpose in life also reported greater psychological well-being, better relationships with their children and happier marriages. The results of Chang and Dodder (1983-84) and Shek (1988, 1993, 1994) have supported the potential utility and validity of using the purpose in life construct with cross-national samples. Unfortunately, it is hard to find a wide range of cross-national studies using the PIL Test. However, according to Crumbaugh and Henrion (1988), by the time of their review, the scale had been translated into six languages. Additional multicultural research is needed for further cross-validating the PIL Test and the construct of purpose in life with other cultural groups. Some studies have repeated and built on Crumbaugh and Maholick’s (1964) initial study.
In addition to Crumbaugh’s (1968) study including Protestant parishioners, Dufton and Perlman (1986) looked at the relationship between religiosity and PIL Test scores in greater depth. Results supported a significant association between spirituality and purpose in life. Individuals (N=232) indicating stronger spiritual or religious beliefs, especially conservative beliefs, reported a greater sense of purpose in life. Gerwood, LeBlanc and Piazza (1998) compared scores on the PIL Test between elderly Protestant and Catholic participants (N=118) and found no significant differences between those denominations. However, Gerwood and his colleagues did find that participants scoring higher on an index of spirituality reported a greater sense purpose in life. In other words, those participants reporting greater satisfaction with their spirituality also indicated a higher sense of purpose in life. In a related study, Durlak (1972) compared students’ (N=120) reported levels of purpose in life with their fear of death. Durlak found a significantly negative relationship between purpose in life and fear of death. Students reporting a greater sense of purpose in life were more accepting and positive toward the concept of death. In the same study, Durlak replicated his results with another sample of 94 students, finding again that higher purpose in life was negatively associated with a fear of death. The above results supported that, in terms of purpose in life, the quality of spirituality is a more important variable as opposed to the specific religion. Individuals reporting higher purpose in life were less fearful of death and indicated they were more satisfied with their spiritual experiences. Although there is clearly a significant relationship between purpose in life and certain variables related to spirituality, further research is required for better understanding the exact nature of these findings.
Crumbaugh and others have also looked directly and indirectly at the relationship between alcohol abuse and PIL Test scores (Crumbaugh, 1968; Crumbaugh & Maholick, 1964; Noblejas de la Flor, 1997; Waisberg & Porter, 1994), as well as the associations between purpose in life and other forms of drug abuse (Padelford, 1974; Shean & Fechtmann, 1971). The empirical evidence has supported a significant association between purpose in life and individuals struggling with substance abuse problems. Individuals abusing drugs or alcohol reported significantly lower levels of purpose in life than those without substance abuse problems. Furthermore, reported levels of purpose in life increased after individuals received treatment for their substance abuse problems (Noblejas de la Flor, 1997; Waisberg & Porter, 1994). Waisberg and Porter also found that individuals who experienced an increase of purpose in life were less likely to have abused substances at a three-month follow-up. The research seems to suggest that individuals with lower purpose in life are at greater risk for drug and alcohol abuse. Further empirical research is needed before drawing any strong conclusions regarding purpose in life and substance abuse. It is promising, however, that there is a significant association between purpose in life and substance abuse as well as various levels of recovery and treatment. There may be further opportunities for integrating the construct of purpose in life into the areas of treatment and recovery.

In addition to the above populations, Reker (1977) used the PIL Test with a prison inmate sample. His research uncovered a significant association between inmates and non-inmates regarding purpose in life. Inmates reported significantly lower levels of purpose in life than non-inmates. Furthermore, Reker also found a significant association
between purpose in life and self-esteem. Participants reporting lower purpose in life also reported lower self-esteem. Finally, lower purpose in life was associated with lower internal locus of control. As Reker pointed out, inmates with a greater sense of purpose perceived themselves as having greater control of their environment. The results of Reker’s study would seem to indicate that purpose in life may provide a buffer against a negative self-image or feelings of being ruled by chance or luck, even in an environment where freedom and positive experiences are in short supply. However, additional research is needed to support any definitive conclusions regarding the protective qualities of purpose in life.

Self-Efficacy

Bandura’s (1977, 1997) theory of self-efficacy has proven especially useful for researchers in the field of counseling psychology. Specifically, research in the areas of vocational and academic behavior has been productive over the past 20 years. As the body of literature related directly and indirectly to self-efficacy theory is so vast, the following review will focus primarily on the literature directly relevant to the field of counseling psychology, namely vocational and academic behavior. The application of self-efficacy theory to vocational behavior and career counseling primarily originated with the research of Hackett & Betz (1981; Betz & Hackett, 1981). Hackett and Betz addressed that women were significantly underrepresented in many managerial and professional occupations (e.g., lawyer, physician, engineer, professor). The model proposed by Hackett and Betz, based on Bandura’s (1977) self-efficacy theory, was created for better understanding the influences of women’s socialization on their career
development patterns. The argument is made that self-efficacy beliefs are significant for determining whether more women will begin choosing nontraditional careers for females. Therefore, if counselors want to be effective in supporting women toward more nontraditional careers, they need to focus attention on the necessary sources of self-efficacy information outlined by Bandura (1997; refer to Figure 1.2).

In a follow up study to Hackett and Betz (1981), Betz and Hackett (1981) used a university sample of 134 females and 101 males for exploring the validity of their model for women’s career development. Betz and Hackett were interested in whether males and females differed in the degree of their self-efficacy beliefs for jobs that were traditional or nontraditional for women. The results showed significant differences between males’ and females’ self-efficacy beliefs toward five of the ten nontraditional careers for women (i.e., accountant, drafter, engineer, highway patrol officer, and mathematician). Women indicated significantly less confidence in their ability to perform the duties required for those nontraditional jobs. Conversely, women indicated significantly more self-efficacy with regards to four of the ten traditionally female jobs (i.e., dental hygienist, home economist, secretary, and social worker). Self-efficacy beliefs were also significantly associated with career interests, that is, high self-efficacy was predictive of women’s interests in traditional careers (Betz & Hackett). The work of Hackett and Betz helped pave the way for additional research focused on self-efficacy beliefs and vocational/academic behaviors of women and other underrepresented populations (e.g., Betz, 1993; Betz & Hackett, 1983; Betz & Hackett, 1997; Betz & Schifano, 2000; Hackett, 1985; Hackett, Betz, Casas, & Rocha-Singh, 1992; Solberg & Villarreal, 1997).
Several other articles have examined how self-efficacy beliefs influence vocational and academic interests and choices, as well as how these beliefs affect outcome expectations and performance.

Lent, Brown and Larking (1984, 1986, 1987) conducted several such studies looking at the associations between self-efficacy beliefs and multiple variables of academic achievement. In one study, Lent and his colleagues (1984) examined participants’ (N=42) self-efficacy beliefs and their success in persisting at majors in science and engineering. Participants completed a 10-week career-planning course focused on science and engineering fields, then completed measures regarding their abilities to complete the academic requirements for those fields. Participants reporting higher self-efficacy beliefs also achieved higher grades and persisted longer at the educational requirements for their fields. In a later study, Lent et al. (1986) explored the association between participants’ (N=105) self-efficacy beliefs and their academic performance as measured by grades, persistence and perceived career options. Participants with stronger self-efficacy beliefs performed significantly better than those with weaker self-efficacy beliefs. Finally, using their 1986 sample, Lent and his colleagues (1987) compared the relationships of self-efficacy beliefs, interest congruence and consequence thinking with participants’ academic performance in technical/scientific majors. The results supported that self-efficacy beliefs were the most useful of the three variables for predicting students’ performance in a one-year follow-up to their 1986 study. In each study, self-efficacy beliefs were significantly associated with academic
performance and persistence. Furthermore, when compared to other variables, self-efficacy beliefs were better able to predict future academic performance (Lent et al., 1987).

In addition to the comprehensive research of Lent and his colleagues (1984, 1986, 1987), many other researchers have explored the associations between self-efficacy beliefs and variables of academic performance and persistence with a variety of samples in various settings (e.g., Bouffard-Bouchard, Parent, & Larivee, 1991; Brown, Lent, & Larking, 1989; Locke, Frederick, Lee, & Bobko, 1984; Shunk, 1985; Wood & Locke, 1987). In each study, self-efficacy beliefs were significantly associated with persistence and performance. Individuals reporting stronger self-efficacy beliefs persisted longer at and performed better a variety of behaviors necessary for academic success. Not only were self-efficacy beliefs directly related to performance and persistence, but also indirectly. Undergraduates with stronger self-efficacy beliefs tended to set more difficult, specific goals and were more committed to their goals (Locke et al., 1984; Wood & Locke, 1987), which in turn led to better performance. Shunk (1983) found that grade school children with stronger academic self-efficacy beliefs were also likely to set more difficult learning goals than those with weaker self-efficacy beliefs. Furthermore, self-efficacy beliefs were significantly associated with performance and persistence, in some cases, regardless of school grade level or cognitive ability (Bouffard-Bouchard et al., 1991). Students with stronger self-efficacy beliefs from different grade levels with varying cognitive abilities performed better and persisted longer at tasks than student with lower self-efficacy beliefs. In addition, students with stronger self-efficacy beliefs
regarding learning were more motivated to acquire knowledge and skills (Schunk, 1985). The results of these studies support that self-efficacy beliefs are significantly related to a wide variety of variables necessary for academic success.

Ten years after Hackett and Betz (1981) introduced self-efficacy into the career literature, Multon, Brown and Lent (1991) performed a meta-analytic investigation of the relationship between self-efficacy beliefs and academic outcomes. Multon and his colleagues found strong evidence for a significant association between self-efficacy beliefs and academic performance and persistence across a wide range of diverse samples. Overall, individuals with stronger self-efficacy beliefs performed better and persisted longer at a variety of academic behaviors. Not only are these results useful for understanding the academic and career success of individuals in general, but also for understanding the choices and performance of women and minorities in particular.

It is widely acknowledged that women and minorities continue being underrepresented in the sciences and engineering as well as other traditionally white male dominated jobs (e.g., politician, manager/executive, college professor, lawyer). Self-efficacy interventions may provide a means for achieving greater gender and ethnic parity in the world of work. Interventions focused on improving self-efficacy have already proven successful (e.g., Betz & Schifano, 2000; Gist, Schoerer, & Rosen, 1989). In addition to the research focused more generally on academic performance and persistence, studies have also supported significant associations between self-efficacy beliefs and a variety of specific tasks related to academic and intellectual success.
Research has focused, for example, on such diverse learning behaviors as approaching and performing well on computers (Gist, Schwoerer, & Rosen, 1989; Hill, Smith, & Mann, 1987), mathematics-specific self-efficacy (Lent, Brown, & Gore, 1997), choosing a technical/scientific major based on mathematics self-efficacy (Betz & Hackett, 1983), writing performance (Meier, McCarthy, & Schmeck, 1984), exam performance (Vrugt, Langereis, & Hoogstraten, 1997), and research productivity among graduate students (Brown, Lent, Ryan, & McPartland, 1996). In each case, the evidence has empirically supported a significant association between self-efficacy beliefs and task performance. Individuals with high computer self-efficacy achieved greater computer mastery than those individuals with lower self-efficacy beliefs (Gist et al., 1989), and were more likely to approach computers and other electronic devices (Hill et al., 1987). Betz and Hackett found that college students with higher mathematics self-efficacy beliefs were more likely to choose mathematics related majors (e.g., sciences, engineering). Likewise, college students with high self-efficacy beliefs regarding writing, exam performance and research activities were better writers (Meier et al., 1984), performed better on exams (Vrugt et al., 1997), and produced more research (Brown et al., 1996).

Summary

In summary, there is significant empirical research validating the construct of purpose in life as well as the PIL Test. The research thus far has also supported significantly positive associations between purpose in life and multiple factors of well-being (e.g. success, spirituality, sobriety, happiness). Individuals reporting higher levels
of purpose in their lives also tended to identify with other factors of psychological well-being. Additionally, over 20 years of research supports the association between self-efficacy beliefs and a wide variety of academic and vocational behaviors. Generally, individuals with higher self-efficacy beliefs tend to approach, persist at, and perform better a variety of behaviors necessary for academic and vocational success. The literature reviewed in this chapter supports the value of the constructs of purpose in life and self-efficacy. However, there is no known research that explores the possible relationships between these two constructs. The next chapter details the method utilized in the present study for beginning the exploration of the associations between some forms of self-efficacy beliefs and purpose in life.
CHAPTER 3

METHOD

Introduction
The following chapter details the method involved in the present research. Demographic information regarding the participants is presented. Next, the measures utilized are identified and described. The procedures in the data collection process of the research are then detailed as well as the primary hypotheses. Finally, the chapter ends with a discussion of the data analyses conducted for the study.

Participants
The participants were 344 undergraduate students enrolled in an introductory psychology course at a large midwestern university. Participation was voluntary, and although students received course credit as compensation, there were other ways of earning this credit and students could choose from a wide variety of research studies in which to participate. Measures of demographic characteristics, purpose in life, self-efficacy beliefs, and social desirability were administered respectively.

Demographic data revealed that 68\% (n=233) were female and 32\% (n=111) were male, ranging in age from 16 to 42 with a mean age of 19 years old, and fully 99\% indicated their partnership status as single/unmarried. Most (76.2\%; n=262) identified as
white/Caucasian, 9.6% (n=33) as Asian American/Asian, 7.3% (n=25) as African American/African, 4.6% (n=17) as multiracial/multicultural or other, and 2% (n=7) as non-white/Hispanic. The majority (79.4%; n=237) were freshmen, 13.1% (n=45) were sophomores, 4.1% (n=14) were juniors, and 3.2% (n=11) were seniors, with the remaining 0.3% (n=1) failing to specify grade/year level.

Measures

Meaning in life was measured using part A of the Purpose-In-Life Test (Crumbaugh & Maholick, 1964). The PIL Test (Appendix A) consists of 20 items assessing a person’s subjective, global sense of having purpose or meaning in his or her life (e.g., “My personal existence is: Utterly meaningless, without purpose” through “Very purposeful, meaningful”). A greater sense of “purpose” tends to entail a stronger belief in the significance of one’s existence and behaviors. Item responses are obtained using a 7-point Likert scale ranging from 1 to 7 (specific statements between 1 through 7 vary from item to item). Total scores of the PIL Test are obtained by summing the 20 items. Total scores can range from 20 to 140; higher scores reflect a greater sense of purpose in life. Hutzell (1988) reported split-half reliability coefficients ranging from .77 (Spearman-Brown corrected to .87) to .85 (Spearman-Brown corrected to .92), and test-retest reliability yielded the following data: for Meier and Edwards (1974) a 1-week coefficient of .83 (N=57 church members); for Reker and Cousins (1979) a 6-week coefficient of .79 (N=31 college students); and for Reker (1977) a 12-week coefficient of .68 (N=17 penitentiary inmates). An alpha of .89 for internal consistency of the measure was achieved in the present study.
Self-efficacy was assessed using three different measures: 1) The College Self-Efficacy Inventory, 2) The Scale of Perceived Social Self-Efficacy, and 3) The General Self-Efficacy Subscale of the Self-Efficacy Scale. The College Self-Efficacy Inventory (CSEI; Solberg, O’Brien, Villarreal, Kennel, & Davis, 1993) consists of 20 items related to different areas of college life (i.e., courses, roommates, and social situations) assessing an individual’s sense of perceived college self-efficacy (Appendix B). Item responses are obtained using an 11-point Likert scale ranging from 0 (not at all confident) to 10 (extremely confident). Total scores of the CSEI are obtained by summing the 20 items. Total scores can range from 20 to 220; higher total scores reflect a greater sense of college self-efficacy. Internal consistency reliability was strong (alpha = .93) for the measure (Solberg et al.); an alpha of .91 was achieved in the present study.

Social self-efficacy was measured using the Scale of Perceived Social Self-Efficacy (PSSE; Smith & Betz, 2000). The PSSE (Appendix C) consists of 25 items assessing an individual’s perceived social self-efficacy. Items address a variety of social behaviors between individuals (e.g., “How much confidence do you have that you could express your feelings to another person?”). Item responses are obtained using a 5-point Likert scale ranging from 1 (no confidence at all) to 5 (complete confidence). Total scores on the PSSE are obtained by summing the 25 items. Total scores can range from 25 to 125; higher scores reflect a greater sense of perceived social self-efficacy. Smith and Betz reported strong internal consistency reliability (alpha = .94); an alpha of .95 was achieved in the present study.
General self-efficacy was measured using the General Self-Efficacy Subscale (GSE) of the Self-Efficacy Scale (SES; Sherer et al., 1982). The GSE (Appendix D) consists of 17 items assessing an individual’s subjective, global sense of general self-efficacy (e.g., “When I decide to do something, I go right to work on it”). General self-efficacy is likened to a global confidence in a variety of activities as opposed to confidence in specific behaviors. Item responses are obtained using a 5-point Likert scale ranging from A (disagree strongly) to E (agree strongly). Total scores of general self-efficacy are obtained by summing the 17 items of the subscale (11 items were reverse scored). Total scores can range from 17 to 85; higher total scores reflect greater general self-efficacy. Sherer et al. reported internal consistency reliability of .86; an alpha of .86 was also achieved in the present study.

Moderate concern was expressed that the PIL Test contains a social desirability response set problem (Ebersole & Quiring, 1988). Ebersole and Quiring calculated a correlation of .33 (N=130) and .37 (N=105) between the PIL Test and the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) for samples from 1984 and 1987 respectively. Individuals completing the PIL Test tended to show a modest desire to answer in a socially desirable fashion. According to Ebersole and Quiring these correlations were moderate, however they were statistically significant. It was deemed useful to validate the possibility of a social desirability response set in the present research.

The potential for social desirability was measured using the Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe). The MCSDS (Appendix E)
consists of 33 items assessing an individual’s likelihood of answering in a socially desirable fashion. Item responses are obtained using an indication of true or false; 18 items are keyed true and 15 false. Total scores are obtained by summing the 33 items in the direction they are keyed. Total scores can range from 33 to 66; higher total scores indicate a greater predisposition for social desirability responding. Crowne and Marlowe reported an internal consistency reliability of .88 and a test-retest reliability of .89; an internal consistency of .73 was achieved in the present study.

**Procedures**

Data were collected over the course of three months in the fall of 2002. Participants were given written directions (Appendix F) explaining the general process and purpose of the study. Participants were then presented items systematically using the Psychological Inventory Generator computer program (PIG; Bean, 2000) for data collection. For each item, participants either answered the item by indicating their answer choice with the computer’s mouse or they left the item unanswered and moved onto the next item. Items on the demographic questionnaire (Appendix G) were presented first, followed by purpose in life, college self-efficacy, social self-efficacy, general self-efficacy, and social desirability respectively. The version of the PIG computer program utilized at the time of this research was unable to accommodate counterbalancing or random presentation of the measures. Participants were given a debriefing form (Appendix H) explaining the study in greater detail and it also provided the contact information of the investigators. The entire process for participants took approximately 15 to 20 minutes. The hypotheses and statistical tests are noted below:
Hypotheses

Hypothesis 1: All three forms of self-efficacy (i.e., college, social, and general) are significantly and positively associated with purpose in life. This hypothesis was explored using correlational analysis for testing the strength and direction of the relationships.

Hypothesis 2: Bandura (1997) made clear that measures focusing on specific behaviors generally have the most utility for predicting self-efficacy beliefs for those behaviors; however, as purpose in life is less of a specific behavior and more of a global belief, it is hypothesized that general self-efficacy accounts for greater variance in purpose in life. This hypothesis was explored using hierarchical regression.

Hypothesis 3: Individuals scoring the highest on the measures of self-efficacy (i.e., college, social, and general) are likely to report significantly stronger purpose in life than those scoring lower on self-efficacy. This hypothesis was explored using ANOVAs for the associations between the different types of self-efficacy beliefs and purpose in life.

Hypothesis 4: Social desirability is not significantly associated with reports of purpose in life. This hypothesis was explored using correlational analysis for testing any potential relationship between the two variables.

Analyses

Descriptive statistics were calculated first, including means, standard deviations, and t tests for gender comparisons on each of the scales. Coefficient alphas were also obtained for each of the measures for establishing internal consistency reliability. In
addition, a matrix of correlations was constructed for initially evaluating the strength and
direction of the relationships between the variables of self-efficacy and purpose in life to
address Hypothesis 1, as well as between purpose in life and social desirability to address
Hypothesis 4.

Regression analyses were performed for analyzing the variance accounted for in
purpose in life by each of the variables of self-efficacy to address Hypothesis 2.
Furthermore, ANOVAs were conducted for further analyzing the relationships between
the three forms of self-efficacy beliefs and purpose in life to address Hypothesis 3.
CHAPTER 4

RESULTS

Table 4.1 shows total score means, standard deviations and t test values for the purpose in life, self-efficacy and social desirability variables by gender. T test results indicated there were no significant difference between males and females on any of the variables analyzed. Additionally, all of the measures had adequate internal reliability (see Measures section).

Hypothesis 1

In support of the first hypothesis, all of the variables of self-efficacy were significantly (p < .001) and positively correlated with purpose in life (see Table 4.2); higher levels of self-efficacy were strongly associated with reports of greater purpose in life.

Hypothesis 2

In support of the second hypothesis, regression analysis revealed that general self-efficacy emerged as the most significant predictor of purpose in life, accounting for 41% of the variance. The hierarchical regression results presented in Table 4.3 further revealed that when entered after general self-efficacy, both college and social self-efficacy accounted for modest, but significant, unique, additional variance in purpose in
<table>
<thead>
<tr>
<th>Variables</th>
<th>Males $^a$</th>
<th>Females $^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Purpose in Life</td>
<td>107.9</td>
<td>13.6</td>
</tr>
<tr>
<td>College Self-Efficacy</td>
<td>125.1</td>
<td>23.3</td>
</tr>
<tr>
<td>Social Self-Efficacy</td>
<td>86.6</td>
<td>18.1</td>
</tr>
<tr>
<td>General Self-Efficacy</td>
<td>64.4</td>
<td>9.0</td>
</tr>
<tr>
<td>Social Desirability</td>
<td>47.6</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Note. $^a$n = 111. $^b$n = 233.

Table 4.1: The Means, Standard Deviations and t-Values For Males and Females on the Measures

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (N = 344)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Purpose in Life</td>
<td>--</td>
<td>.59**</td>
<td>.52**</td>
<td>.64**</td>
<td>.31**</td>
</tr>
<tr>
<td>2. College Self-Efficacy</td>
<td>--</td>
<td>.76**</td>
<td>.65**</td>
<td>.26**</td>
<td></td>
</tr>
<tr>
<td>3. Social Self-Efficacy</td>
<td>--</td>
<td>.51**</td>
<td>.22**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. General Self-Efficacy</td>
<td>--</td>
<td>.41**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Social Desirability</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. **p < .001.

Table 4.2: Inter-correlations Between Self-Efficacy Beliefs, Purpose in Life and Social Desirability
life. College self-efficacy accounted for an additional 5% of the variance in purpose in life while social self-efficacy accounted for an additional 1% of the variance.

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>F Change</th>
<th>F*</th>
<th>R</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Efficacy</td>
<td>.661</td>
<td>233.50</td>
<td>&lt;.001</td>
<td>.638</td>
<td>.405</td>
</tr>
<tr>
<td>College Self-Efficacy</td>
<td>.114</td>
<td>32.55</td>
<td>&lt;.001</td>
<td>.677</td>
<td>.455</td>
</tr>
<tr>
<td>Social Self-Efficacy</td>
<td>.130</td>
<td>6.99</td>
<td>.009</td>
<td>.685</td>
<td>.465</td>
</tr>
</tbody>
</table>

Note. F* = Significance of F Change. R² = Adjusted R Square.

Table 4.3: Model Summary of Hierarchical Regression Analysis for the Prediction of Purpose in Life

**Hypothesis 3**

In order to explore high and low self-efficacy groups, analyses of variance were computed comparing participants scoring in the upper and lower 30% on each of the three self-efficacy scales with overall purpose in life. Based on t tests that indicated no significant differences between males and females in any of the upper or lower groups of the variables being analyzed, gender was not included as an independent variable in the ANOVAs. The ANOVAs revealed, in support of the third hypothesis, that there were significant differences in reported life meaning between the upper and lower self-efficacy groups (see Table 4.4). Individuals scoring higher on any of the three self-efficacy measure also reported significantly more purpose in their lives.
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M^a</th>
<th>SD^a</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>7.02</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Upper 30%</td>
<td>111</td>
<td>117.8</td>
<td>10.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower 30%</td>
<td>100</td>
<td>99.3</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>3.42</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Upper 30%</td>
<td>108</td>
<td>117.5</td>
<td>10.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower 30%</td>
<td>99</td>
<td>99.4</td>
<td>13.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>3.47</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Upper 30%</td>
<td>109</td>
<td>116.7</td>
<td>9.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower 30%</td>
<td>102</td>
<td>100.8</td>
<td>14.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. ^aMean and Standard Deviation Scores for PIL Test.

Table 4.4: ANOVA Results for Upper and Lower Self-Efficacy Groups for Purpose in Life

Hypothesis 4

Contrary to the fourth hypothesis, social desirability was found to be modestly, although significantly, correlated to purpose in life (refer to Table 4.2). Individuals scoring higher on the measure of purpose in life appeared to display a slight, but significant likelihood to answer in a more socially desirable manner. Furthermore, social desirability was also found to be somewhat correlated with the other three variables of self-efficacy. In light of these findings, the decision was made to carry out additional, unplanned analyses for a better understanding of the nature of the associations between social desirability and the three variables of self-efficacy.
Analyses of variance were calculated for determining significant differences in social desirability between the upper and lower groups (30%) of each self-efficacy variable. As t test results revealed no differences between males and females in the upper or lower groups for any of the variables of self-efficacy or social desirability, the gender of participants was not included as an independent variable.

The analyses of variance for exploring social desirability on each type of self-efficacy yielded mixed results (see Table 4.5). General self-efficacy was the only of the three types of self-efficacy beliefs that revealed a significant difference between the upper and lower groups for social desirability. Individuals scoring in the upper 30% on the General Self-Efficacy Subscale exhibited significantly higher mean scores on the measure of social desirability. There were no significant differences in mean scores of social desirability between individuals in the upper or lower 30% on the measures of social or college self-efficacy. Participants scoring higher or lower on social or college self-efficacy beliefs were not significantly different in their mean scores on social desirability.
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>M(^a)</th>
<th>SD(^a)</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>3.04</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Upper 30%</td>
<td>111</td>
<td>50.2</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower 30%</td>
<td>100</td>
<td>45.8</td>
<td>4.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>Upper 30%</td>
<td>108</td>
<td>49.7</td>
<td>4.3</td>
<td></td>
<td>.178</td>
</tr>
<tr>
<td>Lower 30%</td>
<td>99</td>
<td>46.6</td>
<td>4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Self-Efficacy</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Upper 30%</td>
<td>109</td>
<td>49.3</td>
<td>4.4</td>
<td></td>
<td>.487</td>
</tr>
<tr>
<td>Lower 30%</td>
<td>102</td>
<td>47.1</td>
<td>5.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. \(^a\)Mean and Standard Deviation Scores for the MCSDS.

Table 4.5: ANOVA Results for Upper and Lower Self-Efficacy Groups for Social Desirability
Studies exploring the potential associations between self-efficacy beliefs and purpose in life have been nonexistent in the research literature. The present research was an initial exploration of the possible relationships between a few forms of self-efficacy beliefs relevant to a college population (i.e., college, social, and general) and the construct of purpose in life as conceptualized by Frankl (1985, 1988). The results provided ample evidence for the existence of significant associations between the self-efficacy beliefs being analyzed and purpose in life.

The first hypothesis stated that each of the three types of self-efficacy beliefs would be significantly associated with purpose in life. In support of the first hypothesis, correlational analyses demonstrated that self-efficacy beliefs were significantly and positively related with reports of purpose in life. As individuals’ scores on college, social or general self-efficacy increased, their scores on purpose in life also tended to increase. Additionally, the second hypothesis was supported by a regression analysis that revealed general self-efficacy accounted for the greatest amount of variance in purpose in life.
scores. When social and college self-efficacy were entered into the regression analysis after general self-efficacy, both accounted for small, but significant amounts of additional variance in purpose in life. Furthermore, when social or college self-efficacy was entered into the regression analysis before general self-efficacy, neither variable accounted for as much variance in purpose in life as did general self-efficacy.

The third hypothesis posited that individuals scoring higher on any of the measures of self-efficacy would also indicate higher levels of purpose in their lives. This hypothesis was tested by analyses of variance that revealed significant differences between high and low participant groups on each of the variables of self-efficacy. Individuals with higher scores on any of the three self-efficacy variables also reported greater levels of purpose. Conversely, those individuals scoring lowest on the measures of self-efficacy indicated significantly lower levels of purpose in their lives.

Finally, the fourth hypothesis focused on exploring any possible associations between the measure of purpose in life and social desirability. Previous researchers had found a positive association between the Marlowe-Crowne Social Desirability Scale and the PIL Test. Ebersole and Quiring (1988) calculated correlations of .33 and .37 between the PIL Test and MCSDS for samples from 1984 and 1987 respectively. The results of this study also revealed a modest, yet significant, correlation ($r = .31$) between the PIL Test and social desirability. However, this result is not unusual. Previous research has confirmed the likelihood of participants to answer in socially desirable manners on a variety of self-report measures (McCrae & Costa, 1983).
Results of the correlational analyses also revealed significantly positive associations between social desirability and the three measures of self-efficacy beliefs. Given this finding, a decision was made to carry out additional, unplanned analyses in order to better understand the associations between social desirability and the self-efficacy beliefs measured. Analyses of variance were computed to determine if there were any significant differences in reports of social desirability between individuals scoring higher and those scoring lower on the self-efficacy measures. The results of these analyses of variance were mixed. The only significant differences between individuals scoring higher and those scoring lower were found on the variable of general self-efficacy. Individuals scoring higher on the measure of general self-efficacy were more likely to score slightly higher on the measure of social desirability. However, there were no significant differences between individuals scoring higher and those scoring lower on the variables of college or social self-efficacy.

There are two important considerations when interpreting the associations between social desirability and the three measures of self-efficacy. First, although significant, the relationships between social desirability and all of the variables were modest (refer to Table 4.2). Second, as previously mentioned in regards to the PIL Test, it is not unusual for participants to display some social desirability influences on self-report measures (McCrae & Costa, 1983).

Implication

The present study lends support to the idea of creating interventions based on self-efficacy theory in order to positively influence students’ subjective sense of purpose in
life. Other researchers have already supported a direct association between self-efficacy beliefs and variables important for academic success such as persistence and performance (Multon, Brown, & Lent, 1991), as well as college satisfaction (DeWitz & Walsh, 2002). It may be that self-efficacy also interacts with other variables needed for academic success, such as purpose in life. As with self-efficacy, previous research has also supported associations between purpose in life and variables of academic success such as grade point average and mental ability (Martin & Martin, 1977). Furthermore, purpose in life is associated with variables that are likely to be indirectly useful for academic success, such as general enthusiasm (Walters & Klein, 1980) and anger management (Sappington & Kelly, 1995), as well as a higher internal locus of control and decreased depression (Phillips, 1980). These results lend support for developing interventions based on self-efficacy theory that improve purpose in life and in turn create a more successful college experience for students.

Limitations

There was initial concern regarding the demographic makeup of the participating sample. Those who chose to participate in this study were primarily white Caucasian, female, first year students. Approximately two-thirds of the sample was female, which was not representative of the university as a whole. The large, mid-western university from which this sample was drawn had approximately equal numbers of males and females enrolled. On the other hand, the racial demographic of the sample, while skewed toward white Caucasians, was fairly representative of the diversity at the university. Generalizing the results of this study, even to other college populations, should be done
cautiously. However, it is useful to note that previous research looking at possible gender and racial differences regarding PIL Test scores revealed no significant differences. Coffield and Buckalew (1985) found no significant differences between white Caucasians (M=108.97, SD=14.37) and African Americans (M=108.55, SD=13.21) on purpose in life scores. The mean scores of African Americans and white Caucasians on the PIL Test were similar. There were also no significant differences between white Caucasians (M=109.45, SD=13.46) and African Americans (M=112.46, SD=10.57,) as well as between white Caucasian and Asian/Asian Americans (M=107.55, SD=14.43) in the present study. Regarding gender, Meier and Edwards (1974) found no significant difference between males (M=111.4, SD=13.4) and females (M=109.7, SD=13.1) from ages 25 to 35 on the PIL Test. Both males and females reported similar levels of purpose in life. As previously reported, there were no significant differences between males (M=107.9, SD=13.6) and females (M=110.1, SD=13.1) in purpose in life in the present study. Furthermore, Coffield and Buckalew found no significant differences between academic classes. Students from different academic levels (e.g., freshman, sophomore, junior, senior) reported similar mean scores on the PIL Test. The results from previous research as well as those from the current study would seem to support some level of generalizing to other populations, especially college students. Of course, as previously mentioned, generalizing results from this sample to other populations should be done cautiously.

Another possible limitation of the study was the fact that only one measure of meaning in life was utilized, the PIL Test. Although the PIL Test was the only measure
used, this may only be of mild concern at this time. Previous researchers have tended to identify the PIL Test as being the most useful for exploring the construct of purpose in life, particularly in relation to Frankl’s views. Chamberlain and Zika (1988) used two other related measure in their study, the Life Regard Index (LRI) and the Sense of Coherence Scale (SOC). As with the PIL Test, the LRI and the SOC are purported to measure similar aspects of well-being. However, Chamberlain and Zika concluded that the PIL Test had the most utility for assessing meaning out of the three scales examined. Until another instrument is developed that demonstrates greater validity and/or reliability than the PIL Test, there is little apparent necessity for utilizing a different measure when doing research exploring purpose in life.

In terms of the other measures, there are two important considerations. The first concern is regarding the relatively low internal consistency reliability calculated for the Marlowe-Crowne Social Desirability Scale ($\alpha = .73$) in the present study. Previous researchers have reported an internal consistency of .88 (Crowne & Marlowe, 1960). Although there was a discrepancy between the two studies, it does not appear to have significantly impacted the results. Correlations between the PIL Test and social desirability were similar in this study ($r = .31$) as in others (e.g., Ebersole & Quiring, 1988; $r = .33$ & .37). The second possible concern relates to the counterbalancing of the measures. All of the measures used were presented in the same order throughout the data collection phase of this study. The version of the software utilized in the data collection phase was not equipped to counterbalance measures. It may be useful to counterbalance these measures in future, related studies to avoid any possible order effects. Interestingly,
the lack of counterbalancing may account for some of the decreased internal consistency reliability of the MCSDS, as it was the last measure presented to participants. There is the possibility that some participants were paying less attention to the questions near the end of the question set that was presented.

Future Research

Future related research could go in several directions. Primarily, it would be useful to replicate this study, particularly with other populations. The racial diversity of the sample was unavoidably limited by the diversity of the available population. Research with more diverse samples could provide additional insight into some ways for assisting individuals from underrepresented populations enjoy greater success and well-being in higher education.

Another possible direction for future research would be the exploration of possible moderating variables between self-efficacy beliefs and purpose in life. Although an association between certain self-efficacy beliefs and purpose in life was established, it may be that other variables are moderating those relationships. For example, it may not be that social self-efficacy is directly impacting purpose in life; perhaps social self-efficacy is affecting the quantity of people with which a person is interacting and in turn influencing purpose in life. It would be useful for future research to explore some of the possible moderating variables between self-efficacy and purpose in life for a more complete understanding of the possible influences on purpose in life and college success. Additionally, it may be of interest to create and test a model for better understanding the
complex interactions between self-efficacy beliefs, purpose in life, and any number of outcome variables such as satisfaction, happiness, resilience, and/or adjustment to name a few.

Finally, and perhaps most importantly, it would be interesting to create and test possible interventions utilizing self-efficacy theory in order to help individuals increase their sense of purpose in life. Previous research has demonstrated that interventions can be developed that influence self-efficacy beliefs (e.g., Betz & Schifano, 2000; Gist, Schwoerer, & Rosen, 1989; Lent, Brown, & Larking, 1984). Students who undergo an increased sense of life purpose by boosting certain self-efficacy beliefs may experience better performance and a more satisfying college experience. Research of an applied, experimental nature would also help substantiate a causal relationship between self-efficacy beliefs and purpose in life scores. Future research in the areas of self-efficacy beliefs, purpose in life and the nature of their associations could yield valuable information for those interested in understanding and improving the lives of students in higher education.
List of References


Bean, M. C. (2000). Psychological Inventory Generator (PIG, version 1.0) [Unpublished computer software].


APPENDIX A

PURPOSE-IN-LIFE TEST

Please indicate your opinion by circling a number from 1 to 7 on the scale provided for each statement.

1. I am usually:
   
   \[
   \begin{array}{l}
   \text{completely} \\
   \text{bored} \\
   \end{array}
   \]

   exuberant, enthusiastic

   1 2 3 4 5 6 7

2. Life to me seems:

   \[
   \begin{array}{l}
   \text{completely} \\
   \text{routine} \\
   \end{array}
   \]

   always exciting

   1 2 3 4 5 6 7

3. In life I have:

   \[
   \begin{array}{l}
   \text{no goals or} \\
   \text{aims at all} \\
   \end{array}
   \]

   very clear goals and aims

   1 2 3 4 5 6 7

4. My personal existence is:

   \[
   \begin{array}{l}
   \text{utterly meaningless,} \\
   \text{without purpose} \\
   \end{array}
   \]

   very purposeful and meaningful

   1 2 3 4 5 6 7

5. Every day is:

   \[
   \begin{array}{l}
   \text{exactly the} \\
   \text{same} \\
   \end{array}
   \]

   constantly new and different

   1 2 3 4 5 6 7
6. If I could choose, I would:

<table>
<thead>
<tr>
<th>prefer never to have been born</th>
<th>like nine more lives just like this one</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

7. After retiring, I would:

<table>
<thead>
<tr>
<th>loaf completely</th>
<th>do some of the exciting things I’ve always wanted to</th>
</tr>
</thead>
<tbody>
<tr>
<td>the rest of my life</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

8. In achieving life goals I have:

<table>
<thead>
<tr>
<th>made no progress whatever</th>
<th>progressed to complete fulfillment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

9. My life is:

<table>
<thead>
<tr>
<th>empty, filled only with despair</th>
<th>running over with exciting good things</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

10. If I should die today, I would feel that my life had been:

<table>
<thead>
<tr>
<th>completely worthless</th>
<th>very worthwhile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

11. In thinking of my life I:

<table>
<thead>
<tr>
<th>often wonder why I exist</th>
<th>always see a reason for my being here</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

12. As I view the world in relation to my life, the world:

<table>
<thead>
<tr>
<th>completely confuses me</th>
<th>fits meaningfully with my life</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

13. I am a:

<table>
<thead>
<tr>
<th>very irresponsible person</th>
<th>very responsible person</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
14. Concerning man’s freedom to make his own choices, I believe man is:

- completely bound by limitations of heredity and environment
- absolutely free to make all life choices

1 2 3 4 5 6 7

15. With regards to death, I am:

- unprepared and frightened
- prepared and unafraid

1 2 3 4 5 6 7

16. With regards to suicide, I have:

- thought of it seriously as a way out
- never given it a second thought

1 2 3 4 5 6 7

17. I regard my ability to find a meaning, a purpose, or mission in life as:

- practically none
- very great

1 2 3 4 5 6 7

18. My life is:

- out of my hands and controlled by external factors
- in my hands and I am in control of it

1 2 3 4 5 6 7

19. Facing my daily tasks is:

- a painful and boring experience
- a source of pleasure and satisfaction

1 2 3 4 5 6 7

20. I have discovered:

- no mission or purpose in life
- clear-cut goals and a satisfying life purpose

1 2 3 4 5 6 7
APPENDIX B

COLLEGE SELF-EFFICACY INVENTORY

Instructions: Please indicate how confident you are successfully completing the following tasks as a college student. There are no right or wrong answers. Write a number between 0 and 8 next to the statement based on the following answer key:

- 0=totally unconfident
- 1=very unconfident
- 2=unconfident
- 3=somewhat unconfident
- 4=undecided
- 5=somewhat confident
- 6=confident
- 7=very confident
- 8=totally confident

___ 1. Make new friends at college.
___ 2. Talk to your professors/instructors.
___ 3. Take good class notes.
___ 4. Divide chores with others you live with.
___ 5. Research a term paper.
___ 6. Join an intramural sports team.
___ 7. Understand your textbooks.
___ 8. Get a date if you want one.
___ 9. Ask a professor or instructor a question outside of class.
___ 10. Get along with others you live with.
___ 11. Write a course paper.
___ 12. Work on a group project.

___ 13. Socialize with others you live with.

___ 14. Do well on your exams.

___ 15. Talk with a school and/or support (e.g. advising) staff.

___ 16. Manage your time effectively.

___ 17. Use the library.

___ 18. Join a student organization.

___ 19. Ask questions in a class.

___ 20. Divide space in your residence.

___ 21. Participate in class discussions.

___ 22. Keep up to date with your schoolwork.
APPENDIX C

SCALE OF PERCEIVED SOCIAL SELF-EFFICACY

Directions: Please read each statement carefully. Then decide how much confidence you have that you could perform each of these activities successfully. Please use the following key and fill in your answers next to the statement.

1=No confidence at all.
2=Little confidence.
3=Moderate confidence.
4=Much confidence.
5=Complete confidence.

How much confidence do you have that you could:

___ 1. Start a conversation with someone you don’t know very well.

___ 2. Express your opinion to a group of people discussing a subject that is of interest to you.

___ 3. Work on a school, work, community, or other project with people you don’t know very well.

___ 4. Help to make someone you’ve recently met feel comfortable with your group of friends.

___ 5. Share with a group of people an interesting experience you once had.

___ 6. Put yourself in a new and different social situation.

___ 7. Volunteer to help organize an event.

___ 8. Ask a group of people who are planning to engage in a social activity (e.g. go to a movie) if you can join them.

___ 9. Get invited to a party that is being given by a prominent or popular individual.
10. Volunteer to help lead a group or organization.
11. Keep your side of the conversation.
12. Be involved in group activities.
13. Find someone to spend a weekend afternoon with.
14. Express your feelings to another person.
15. Find someone to go out to lunch with.
16. Ask someone out on a date.
17. Go to a party or social function where you probably won’t know anyone.
18. Ask someone for help when you need it.
19. Make friends with a member of your peer group.
20. Join a lunch or dinner table where people are already sitting and talking.
21. Make friends in a group where everyone else already knows each other.
22. Ask someone out after he/she was busy the first time you asked.
23. Get a date to a dance that your friends are already going to.
24. Call someone you’ve met and would like to know better.
25. Ask a potential friend out for coffee.
APPENDIX D

GENERAL SELF-EFFICACY SUBSCALE
OF THE SELF-EFFICACY SCALE

This questionnaire is a series of statements about your personal attitudes and traits. Each statement represents a commonly held belief. Read each statement and decide to what extent it describes you. There are no right or wrong answers. You will probably agree with some of the statements and disagree with others. Please indicate your own personal feelings about each statement below by marking the letter that best describes your attitude or feeling. Please be very truthful and describe yourself as you really are, not as you would like to be.

A= Disagree strongly.
B= Disagree moderately.
C= Neither agree nor disagree.
D= Agree moderately.
E= Agree strongly.

___ 1. When I make plans, I am certain I can make them work.
___ 2. One of my problems is I cannot get down to work when I should.
___ 3. If I can’t do a job the first time, I keep trying until I can.
___ 4. When I set important goals for myself, I rarely achieve them.
___ 5. I give up on things before completing them.

  him or her to come to me.
___ 6. I avoid facing difficulties.
___ 7. If something looks too complicated, I will not even bother to try it.

  stop trying to make friends with that person.
___ 8. When I have something unpleasant to do, I stick to it until I finish it.
9. When I decide to do something, I go right to work on it.

10. When trying to learn something new, I soon give up if I am not initially successful.

11. When unexpected problems occur, I don’t handle them well.

12. I avoid trying to learn new things when they look too difficult for me.

13. Failure just makes me try harder.

14. I feel insecure about my ability to do things.

15. I am a self-reliant person.

16. I give up easily.

17. I do not seem capable of dealing with most problems that come up in my life.
APPENDIX E

MARLOWE-CROWNE SOCIAL DESIRABILITY SCALE

Instructions: Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally:

___ 1. Before voting I thoroughly investigate the qualifications of all the candidates.
___ 2. I never hesitate to go out of my way to help someone in trouble.
___ 3. It is sometimes hard for me to go on with my work if I am not encouraged.
___ 4. I have never intensely disliked anyone.
___ 5. On occasion I have had doubts about my ability to succeed in life.
___ 6. I sometimes feel resentful when I don’t get my way.
___ 7. I am always careful about my manner of dress.
___ 8. My table manners at home are as good as when I eat out at a restaurant.
___ 9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
___ 10. On a few occasions, I have given up doing something because I thought too little of my ability.
___ 11. I like to gossip at times.
___ 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
___ 13. No matter who I’m talking to, I’m always a good listener.
14. I can remember “playing sick” to get out of something.

15. There have been occasions when I have taken advantage of someone.

16. I’m always willing to admit it when I make a mistake.

17. I always try to practice what I preach.

18. I don’t find it particularly difficult to get along with loud mouthed, obnoxious people.

19. I sometimes try to get even rather than forgive and forget.

20. When I don’t know something I don’t mind admitting it.

21. I am always courteous, even to people who are disagreeable.

22. At times I have basically insisted on having things my own way.

23. There have been occasions when I have felt like smashing things.

24. I would never think of letting someone else be punished for my wrongdoings.

25. I never resent being asked to return a favor.

26. I have never been irked when people expressed ideas very different from my own.

27. I never make a long trip without checking the safety of my car.

28. There have been times when I was quite jealous of the good fortune of others.

29. I have almost never felt the urge to tell someone off.

30. I am sometimes irritated by people who ask favors of me.

31. I have never felt that I was punished without cause.

32. I sometimes think when people have a misfortune they only got what they deserved.

33. I have never deliberately said something that hurt someone’s feelings.
WRITTEN INSTRUCTION TO PARTICIPANTS

Welcome to Experiment XYZ!

1) Your participation in this study is entirely voluntary. In fulfilling your Psych 100 course requirements, you have been given a large number of studies to choose from, as well as a non-research alternative—a paper assignment. Thus, your selection of this particular study as opposed to other options indicates that you have made a voluntary choice to participate. If you feel that you have misunderstood or been misinformed about the nature of your participation in this study or the Research Experience Program (REP) in general, you may wish to terminate your participation and seek further information about your REP responsibilities and options. Furthermore, if for some reason during the study you wish not to continue, you are free to leave without penalty.

2) This study consists of a series of questions that pertain to various aspects of your life, including: relationships, social interactions, and beliefs about yourself. Each subsection of the survey contains its own set of instructions, so read them carefully and be careful not to skip over them. Also, read each individual question carefully.

3) Try to answer the questions as honestly as possible, knowing that your responses are entirely confidential—no one, including the people conducting this study, will be able to match your name to your survey responses. Also, remember that you have limited time to complete this study: approximately 20 minutes.

4) At some point in this survey, you may feel as though you have come across “repeats” of the same item. This is not the case! There are no repeated items, although there are items that touch upon similar topics. If you feel like you have come across an item that is similar to or a repeat of a previous item, please note differences in either the wording of the items or the instructions given for that set of items.

5) Please refer back to this sheet if you have questions or concerns as the study progresses. When you have completed the study, you will be given a debriefing sheet with further information about this study and your participation. The debriefing sheet will contain contact information for Dr. W. Bruce Walsh (292-4165), the principal...
investigator of this study, and S. Joseph DeWitz, MA (292-5303) the co-investigator. Please feel free to call with any questions or concerns.

6) Thank you in advance for your participation! You may begin…
APPENDIX G

DEMOGRAPHIC QUESTIONNAIRE

Directions: Please fill in the following information. All information is kept completely confidential. Thank you very much.

1. Gender: ___ Male   ___ Female

2. Ethnicity: ___ Hispanic/Non-White (e.g. Mexican-American, Puerto Rican, Mexican, etc.) ___ Caucasian/White ___ African-American/African ___ Asian-American/Asian (e.g. Chinese-American, Japanese-American, Korean-American, Chinese, Japanese, Korean, etc.) ___ Native American/American Indian/Eskimo ___ Indian-American/East Indian ___ Multi-Racial/Multi-Cultural ___ Other (ethnicity: ______)

3. Academic Year: ___ Freshman/First Year ___ Sophomore/Second Year ___ Junior/Third Year ___ Senior/Fourth Year ___ Graduate Student/Master’s Degree ___ Graduate Student/Doctoral Degree ___ Post Doctoral/Fellow

4. Marital/Partnership Situation: ___ Single/Never Married ___ Married (including if you were divorced/widowed before and are remarried) ___ Divorced (and not currently remarried) ___ Widowed ___ Permanent Partnership

5. Residential Status: ___ Off-Campus Housing (e.g. private residence, apartment, etc.) ___ Fraternity/Sorority Housing ___ Campus Housing (not a fraternity or sorority)

6. Age: ___ 17   ___ 18   ___ 19   ___ 20   ___ 21   ___ 22   ___ 23   ___ 24   ___ 25   ___ Other (age: ____) 

7. Write In: Academic Program (e.g. psychology, engineering, pre-med, undecided, etc.)

__________________________________

73
APPENDIX H

DEBRIEFING SHEET FOR RESEARCH PARTICIPANTS

Dear Student:

Thank you so much for participating in our experiment. We are interested in the ways students can increase a sense of meaning with their college experiences. The first measures you responded to were with regards to your beliefs about your abilities to carry out various social and academic tasks. The other measures were looking at your sense of purpose with school and life in general. There were also measures looking at your attitudes toward yourself and your social environment.

What we hope to learn from this study are the different ways people go about creating a sense of meaning with their college and life experiences. We hope to use this information in individual counseling and in college administration so that people such as you will be helped to have more satisfying college experiences. By understanding how different individuals create feelings of purpose, counselors and administrators can help people achieve more satisfaction in their college experiences.

If in the course of this experiment you have developed concerns or uncertainties regarding your own sense of purpose or college experiences, you may wish to seek counseling. If you wish to do this, you might be able to find counseling here in Townshend Hall at the Psychological Services Center (please call Dr. Bruce Walsh at 292-4165). In addition, The Ohio State University Counseling and Consultation Services located in The Younkin Success Center on Neil Avenue is open 8 hours a day for appointments, and if needed, on an emergency basis. If you need counseling services through the Counseling and Consultation Service, please call 292-5766. If you have any other questions about this study, please call S. Joseph DeWitz, MA at 292-5303.

Again, thank you for assisting us with this research. We hope that it will eventually be used to help people like you.