

EFFECTS OF HYPNOSIS ON THE ACADEMIC SELF-EFFICACY OF FIRST-
GENERATION COLLEGE STUDENTS

By

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To the Faculty of Washington State University:

The members of the Committee appointed to examine the thesis of ALISIA ROSE CABAN find it satisfactory and recommend that it be accepted.

Chair

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Abstract

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The current study investigated the use of hypnosis as an adjunct for increasing the academic self-efficacy and grade point average (GPA) of first-generation college students. Participants were matched based on receptivity to hypnosis and gender and divided into immediate- and delayed-treatment groups. All participants met with the investigator and were administered the Stanford Hypnotic Clinical Scale (Hilgard & Hilgard, 1983), to measure hypnotizability, and an Academic Self-Efficacy Scale comprised of items from Owen and Froman's (1988) College Academic Self-Efficacy Scale and Bandura's "Self-Efficacy for Self-Regulated Learning" subscale (2001). Participants in the immediate-treatment group were exposed to hypnosis with suggestions intended to build academic self-efficacy and taught to use the provided suggestions on their own during self-hypnosis. Thirty-one of thirty-four participants completed the study. One month after the initial session participants were administered the Academic Self-Efficacy Scale as a post-test. Increased academic self-efficacy was measured using the Academic Self-Efficacy Scale pre- and post-test. The Academic Self-Efficacy Scale post-test results were first analyzed using an independent t-test, in which no significant difference was found. Further inspection of the data revealed significant differences in

pre-test means. T-tests were conducted to analyze within group differences on pre- to post-test scores. The results revealed significant differences between the pre- and post-test scores, indicating a significant increase in academic self-efficacy at post-test for both groups. Further results showed the significant increase in the experimental groups post-test scores as being greater than that of the control group. T-tests were conducted to analyze participants GPA's before and after the completion of the study. Results showed no significant increase in Fall or Spring GPAs for either the immediate- or delayed-treatment groups. Limitations of the study and suggestions for future research on the use of hypnosis to increase academic self-efficacy are discussed.

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CHAPTER ONE

INTRODUCTION

As a college degree becomes increasingly important in obtaining employment in a competitive workforce, a growing number of students are enrolling in undergraduate education. However, for many students actually obtaining a college degree can prove to be difficult. For example, P.B. Thayer (2000) identifies students coming from low-income and/or ethnic minority backgrounds as “high-risk students” in terms of the likelihood of attrition from college. These students are especially vulnerable if they are also first-generation college students, that is, students whose parents have not obtained a four-year college degree.

The U.S. Department of Education (2001) notes that first-generation college students tend to have lower persistence in undergraduate education and attain college credentials at much lower rates than students whose parents have completed college. Supported by multivariate analysis of data collected from three nationally representative longitudinal studies it was observed “...first-generation students were less likely to reach their goals even after controlling for other factors also related to persistence and attainment, including socioeconomic status, age, enrollment status, sex, race/ethnicity, type of institution, and academic and social integration” (p. xxxvi). Although first-generation college students have been identified as being high-risk in the completion of an academic degree only limited research has focused on their retention.

Current theories that address the high attrition rates among first-generation college students tend to focus on such variables as: low commitment to college (Billson

& Terry, 1982), lack of social integration (Billson & Terry, 1982; McGregor, Mayleben, Buzzanga, and Davis, 1991), the impact of the cultural transition to college (London, 1992), lack of academic preparation (Bui, 2002), and low self-esteem as this relates to one's level of confidence in social situations (McGregor et al., 1991). Research focusing on the characteristics of first-generation college students and how these characteristics may contribute to lower persistence in college is still rather limited. However, such characteristics as low self-esteem and low self-perceptions in regards to academia do appear to contribute to a student's academic experience (Hellman & Harbeck, 1997; McGregor et al, 1997).

Hellman and Harbeck (1997) examined the academic self-efficacy of first-generation college students. The researchers surveyed 1,522 students attending a Midwestern community college in the United States. The participants were primarily female (60%), nonminority (87%), and between the ages of 22-31 years. Among the participants 561 (37%) were first-generation students whose parents had never attended college, 542 (36%) were students whose parents had completed some college courses, 327 (22%) were students whose parents had attained a bachelor's degree, and 92 (6%) were students whose parents had surpassed a bachelor's degree. The following statement assessed the academic self-efficacy for all participants: "In relation to the general population of our society, I consider my academic ability to be:" The answers were chosen from a five-point Likert scale ranging from "considerably below average" (scored 1) through "average" (scored 3), to "considerably above average" (scored 5).

Results from a Scheffe Range Test showed that those students whose parents had surpassed a bachelor's degree had significantly greater academic self-efficacy ($M = 3.79$,

SD = .80) compared to students whose parents had a bachelor's degree (M = 3.67, SD = .75), had experienced only some college (M = 3.50, SD = .66), or none at all (M = 3.39, SD = .67). Hellman and Harbeck (1997) argue that: "Because their perceptions of academic efficacy are low, first-generation students may feel as though they are not as academically capable as others might think" (p. 167). Although the results actually indicate that first-generation students rated themselves as having average self-efficacy, the researchers described them as experiencing feelings of self-doubt and low self-perception concerning their academic ability.

Bandura (1993, 1995) explains that individuals lacking self-efficacy tend to give up quickly and exert less effort in accomplishing their goals. Lent, Brown, and Larkin (1984) demonstrated this in a study they conducted on students' self-efficacy expectations in relation to academic achievement and persistence in college. The study consisted of 42 participants (28 males, 14 females) enrolled in an undergraduate career/educational-planning course specifically for students considering engineering and science majors. The participants had a mean age of 20 (SD = 3.5) and were mainly freshman and sophomores. Participants completed three measures of self-efficacy constructed for the purpose of the study. The measures were administered at the beginning and end of the course and 8-weeks after the final course meeting. The self-efficacy measures examined the level of self-efficacy in regards to educational requirements (ER-L) and actual job duties (JD-L), as well as, strength of self-efficacy in regards to educational requirements (ER-S) and job duties (JD-S). The test-retest correlations for the self-efficacy scales were .76 (ER-L), .89 (ER-S), .58 (JD-L), and .84

(JD-S). The internal consistencies of the scales were as follows: .79 (ER-L), .89 (ER-S), .80 (JD-L), and .85 (JD-S).

Chi-square tests showed that participants who indicated high-level and high-strength self-efficacy for educational requirements generally acquired higher grades and persisted longer in their major (ER-L, $\chi^2(1, N = 24) = 4.04, p < .05$; ER-S, $\chi^2(1, N = 25) = 6.03, p < .05$). The researchers also found that high school ranks and Preliminary Scholastic Aptitude Test (PSAT) scores correlated with the results of the self-efficacy measures, thus showing that self-efficacy is related to objective measures of high school academic achievement. The researchers do note that academic achievement in high school may contribute to a stronger sense of self-efficacy (Lent et al., 1984). Bandura (1997) provides support for this notion in his statement that “successes build a robust belief in one’s personal efficacy” (p. 80). However, Bandura further states “efficacy beliefs play an influential mediational role in academic attainment” (p. 216) suggesting that efficacy beliefs are significantly linked to academic achievement and that both influence the other.

Although there has been evidence of self-efficacy playing a significant role in regards to academic achievement (Bandura, 1997; Zimmerman, Bandura, & Martinez-Ponz, 1992), there is an absence of research focusing on retention strategies specifically designed to increase academic self-efficacy. Current retention strategies for first-generation college students have included specially designed programs and student activities, tutoring, and financial assistance (Thayer, 2000). However, although several strategies for retention of these students have been implemented, the problem of high attrition persists (US Department of Education, 2001). This suggests the need to

investigate new approaches. This study focuses on one such approach, that is, the use of hypnosis as a tool for ego-strengthening, which can be used to aid students in completing the college experience.

Hypnotic suggestions geared towards ego-strengthening are believed to be effective because they are aimed at increasing one's self-confidence and ability to cope. In this way they help relieve anxiety, tension, and fear (Hartland, 1971). McNeal and Frederick (1993) explain that ego-strengthening methods work by facilitating one's development and internalization of their inner structures. A case study presented by the researchers detailed the use of ego-strengthening techniques with a 25-year-old female. The woman desired to explore the use of hypnosis in helping her overcome "test anxiety" and "writer's block" as she prepared to take the LSAT for the third time. The researchers met with her twice. The initial session focused on relaxation, accessing the conflict free ego-state self-termed as "Inner Strength", and learning self-hypnosis. The second session focused on the use of imagery. The woman reported using self-hypnosis frequently and over a month later the woman was described as "poised, confident, and actually "glowing"." (p. 175). The woman was reported as seeming completely different and she was said to have attained high scores on the LSAT.

McNeal and Frederick (1993) explain that all ego-strengthening scripts place a positive value on the continuous reference to strengthening the ego, "I", or "self." Self-hypnosis exercises also encourage the individual to visit her/his "center of survival" (p. 172) and to focus on the present. Although a hypnotic trance is not always necessary for the use of ego-strengthening techniques, the researchers encourage the use of trance to aid in the uncritical and non-resistant acceptance of the suggestions. The researchers

attribute “improved therapeutic alliance, heightened insight, increased clarity of thinking, and/or improved self-esteem” (p. 176) as effects of ego-strengthening.

Although hypnosis has been shown to be effective in increasing self-esteem and feelings of mastery (McNeal & Frederick, 1993), research focusing on the use of hypnosis to increase academic self-efficacy is noticeably absent. Frederick and McNeal (1999) have acknowledged the empowering effects of learning hypnosis, which aids the individual in developing a sense of control and encourages increased self-confidence. These positive effects show potential in the use of hypnosis as a tool for increasing self-efficacy and ideally aiding in college retention.

Statement of the Problem

The purpose of this study is to investigate the effects of using hypnosis as an adjunct for improving the academic self-efficacy of first-generation undergraduate students.

Hypotheses

First-generation college students who receive hypnotic suggestions concerning academic self-efficacy will have higher academic self-efficacy than a comparable group who do not receive these hypnotic suggestions.

First-generation college students who receive hypnotic suggestions concerning academic self-efficacy will have higher academic grades than the control group at post-test.

CHAPTER TWO

REVIEW OF THE LITERATURE

First-Generation College Students

For the most part, previous research involving first-generation college students has been dedicated to the study of specific characteristics that presumably differentiate them from their non-first-generation peers. Several studies note that most first-generation students enter college with less academic preparation than their peers (Bui, 2002; US Department of Education, 2001; Inman & Mayes, 1991; Richardson & Skinner, 1992; Riehl, 1994; Thayer, 2000). For example, Riehl (1994) states that: “First-generation college students do not have the benefit of parental experience to guide them, either in preparing for college or in helping them understand what will be expected of them after they enroll” (p. 16). Richardson and Skinner (1992) demonstrate this very clearly in a study in which 107 graduates with baccalaureate degrees were interviewed on varying factors contributing to persistence in college. During these interviews, many first-generation college students discussed the difficulties they encountered in undergraduate classes resulting from their lack of preparation. They described the confusion of coming onto a campus with little understanding of what to expect. Many of the students felt that they were missing specific information that other students seemed to possess. In contrast, the non-first-generation students felt that college was a continuation of high school. They had clear expectations of what to expect and information on how to manage their time and finances.

Students whose parents are familiar with college are more likely to receive pertinent information about the college experience. This differs from first-generation college students whose parents often lack the information needed to help them prepare for college (York-Anderson & Bowman, 1991). This, in turn, may explain why first-generation students perceive less support from their family when attending college (Billson & Terry, 1982). For example, York-Anderson and Bowman (1991) found that perceived parental support was significantly related to knowledge about college.

Previous research also suggests that first-generation students experience college in ways different from their non-first-generation peers. Entering a college environment lacking the knowledge common for non-first-generation students can be difficult and can negatively affect first-generation college students' transition to college and expectations concerning their college careers. Billson and Terry (1982) found that first-generation students tend to be less committed to college and are more apt to experience frustration and conflict. This in turn, affects their likelihood of persisting in the educational environment.

Riehl (1994) noted that first-generation students tend to have lower academic expectations for themselves than non-first-generation students. First-generation college students were defined in Riehl's study as those students of whom neither parent attended college. Riehl surveyed 2,190 freshman college students with a Student Information Questionnaire and compared first-generation student responses with those of non-first-generation students. Two-tailed, pooled *t*-tests were used to analyze student's grade point averages, class ranks, and mean test scores. Frequencies of academic degree aspirations, self-predicted grades, first-semester dropouts, and the rates of returning for the second-

year were compared using Chi-square analysis. Combining high school grade point average, high school rank, and SAT scores measured academic preparation. The intent to earn a specific academic degree and the self-predicted grades for first-semester were measured to determine academic aspirations. The study showed that first-generation college students had significantly less academic preparation as exhibited by low test scores and high school grade point averages. First-generation college students also had significantly lower academic degree aspirations and grade point average expectations. Riehl noted “given their weaker academic preparation and lower aspirations, it came as no surprise that first-generation students were less successful academically in their first semester of college and had a lower first-year retention rate than their peers” (p. 18).

Several studies have shown that first-generation college students are not blind to differences in their college experience compared to their peers. As a result, they view themselves as less adequate than those around them. Characteristics associated with being a first-generation college student include: 1) significantly less commitment to college (Billson & Terry, 1982; US Department of Education, 2001); 2) less academic preparation (Bui, 2002; US Department of Education, 2001; Inman & Mayes, 1999; Richardson & Skinner, 1992; Riehl, 1994; Thayer, 2000); 3) less parental support (Billson & Terry, 1982; Choy, 2001; York-Anderson & Bowman, 1991); 4) lower grade expectations (Riehl, 1994); 5) lower self-esteem (McGregor et al., 1991); 6) lower sense of self-efficacy (Hellman & Harbeck, 1996); 7) an increased fear of failure in college (Bui, 2002); and, 8) a desire to increase self-confidence (Inman & Mayes, 1999).

Academic Self-Efficacy

Many of the characteristics present in first-generation college students have been significantly related to self-efficacy. Self-efficacy can be defined as one's belief in her/his ability to pursue goals and accomplish tasks. Solberg, O'Brien, Villareal, Kennel, and Davis (1993) defined self-efficacy in academic terms as a student's confidence in her or his ability to accomplish and perform various academic tasks.

Bandura (1993) states "efficacy beliefs influence how people feel, think, motivate themselves and behave" (p. 118). Bandura further notes that: "People who have a low sense of self-efficacy in a given domain shy away from difficult tasks, which they perceive as possible threats. They have low aspirations and weak commitment to the goals they choose to pursue" (p. 144). Consistent with these comments, research suggests that low self-efficacy negatively affects stress (Bandura, 1993, 1995; Chemers, Hu, & Garcia, 2001; Solberg & Villareal, 1997), coping (Bandura, 1993, 1995; Solberg & Villareal, 1997), academic expectations (Chemers et al., 2001), academic performance (Chemers et al., 2001; Wood & Locke, 1987), and motivation and learning (Bandura, 1993; Zimmerman, 2000).

Previous studies reveal a strong relationship between students' self-efficacy and their performance in academics. Due to the multidimensional form of self-efficacy beliefs, it is not difficult to understand how high self-efficacy beliefs can affect many different areas in a student's life. For example, Chemers et al. (2001) investigated first-year college students' adjustment and academic performance in terms of academic self-efficacy, optimism, and perception of stress, ability to cope, and health. The authors used a structural equation modeling approach to assess results from the following 10 measures:

1) high school GPA, 2) Life Orientations Test, 3) challenge-threat evaluation procedure, 4) academic self-rating, 5) faculty ratings of academic performance, 6) adjustment scale, 7) academic self-efficacy scale, 8) academic expectation scale, 9) stress scale, and 10) a health scale.

Chemers et al. (2001) found that, indeed, academic self-efficacy was strongly related, both directly and indirectly, to academic performance and adjustment. Highly efficacious students entered college with confidence in their ability to perform well academically. This, in turn, influenced their performance. Students who lacked self-efficacy did not perform as well academically as those students who had higher academic expectations. Self-efficacy remained significant even when controlling for the effect of high school GPA as a measure of academic ability.

Chemers et al. (2001) also report that self-efficacy affects students' perceptions of their ability to cope with the pressures and demands of academic work. Highly efficacious students tended to perceive the demands of their first year of college as a challenge rather than a threat. Challenged students were shown to have higher expectations and experience less stress, better health, better college adjustment, and greater satisfaction with college life. In addition, these students exhibited high optimism, which also influenced academic expectations and performance.

Solberg & Villareal (1997) provide additional support for the notion that self-efficacy aids in college adjustment. The investigator's surveyed 311 second- and third-year Hispanic college students using the College Self-Efficacy Inventory, College Stress Inventory, two social support scales constructed from the Social Provisions Scale, and the Brief Symptom Inventory. The researchers assessed self-efficacy, stress, social support,

and psychological/physical distress using hierarchical regression analyses. Results showed that high self-efficacy expectations were related to lower psychological and physical distress and greater personal adjustment to college life. The authors hypothesize that self-efficacy expectations change how students perceive stress, so that individuals with high self-efficacy experience less stress. This corresponds with previous literature that suggests that highly efficacious individuals often visualize anticipatory scenarios of success that they are then able to use as positive guides. However, individuals with low self-efficacy visualize anticipatory scenarios of failure and worry about the things that may go wrong (Bandura, 1993, 1995). Fighting self-doubt greatly limits the achievements of individuals with low self-efficacy.

Solberg & Villareal's (1997) results suggest that academic self-efficacy expectations may be an important factor in college persistence. A student's choice to pursue and persist in college can be associated with motivation. Self-efficacy beliefs have been related to motivation by determining what goals are set, how much effort is used to accomplish the goals, and the amount of time and resiliency expended during difficulties and failures (Bandura, 1993, 1995).

Bandura (1997) notes that individual self-efficacy is likely to play a large role in the goals people set for themselves and how they go about accomplishing them. Individuals usually choose what challenges to undertake partly by their belief in their ability to accomplish their goals. However, failing to attain the goal may cause lower standards to be set and a sense of self-dissatisfaction that, as a result, produces substandard performance. In contrast if much progress is being made the goal may

increase in difficulty, resulting in a sense of satisfaction and new challenges to be used as personal motivators.

Past research has demonstrated how students' grade goals and achievement have been associated with their self-efficacy beliefs. Wood and Locke (1987) conducted four studies examining academic self-efficacy, academic performance, and the grade goals of undergraduate students. The researchers measured self-efficacy with a questionnaire designed specifically for the purpose of the study. Other measures included the Wonderlic Personnel Test to measure ability, course points to measure performance, and an assessment of grade goals, that is, what grades the student hoped to make, would be satisfied making, expected to make, and would actually try to make. A hierarchical regression analysis showed that even with ability controlled, self-efficacy was significantly related to academic performance and self-set grade goals. Self-efficacy affected performance both directly and indirectly through its effects on students' academic goals. Similar findings are reported by Zimmerman et al. (1992). According to Bandura (1997), by achieving high goals, highly efficacious students will continue to challenge themselves. By achieving these challenges these students are motivated to continue setting even higher academic goals.

In conclusion, there is consistent evidence to support the notion that academic self-efficacy affects academic achievement and perseverance both directly and indirectly. As Bandura (1993) notes: "Once formed, efficacy beliefs contribute significantly to the level and quality of human functioning" (p. 145). Researchers have acknowledged over and over again the importance of high self-efficacy. Thus, they have stressed the necessity for programs, techniques, and interventions to facilitate and encourage the

development of academic self-efficacy (Chemers et al., 2001; US Department of Education, 2001; Hellman & Harbeck, 1997; Solberg & Villareal, 1997).

There are a number of ways that self-efficacy beliefs can be positively influenced. The most common methods are through: 1) a mastery of experiences, when an individual personally accomplishes a task; 2) vicarious experiences, watching another similar to themselves accomplish a task; 3) social persuasion, attaining positive verbal persuasion towards a task; and, 4) physiological and emotional states, when an individual interprets a positive mood and lack of stress and tension when approaching a task (Bandura, 1995).

When trying to increase others self-efficacy through interventions, Hammond (1998) posits that there are only a limited number of methods available. For example, positive feedback is easily discounted and it is sometimes difficult to orchestrate success experiences for individuals with low self-efficacy. Therapists sometimes have individuals examine thoughts that undermine their self-efficacy or look at past history and experiences pertaining to self-image. Other options include role-playing, mental rehearsal techniques, and hypnotic techniques. Finally, hypnotic techniques, which are the focus of this study, offer a range of possibilities for building self-efficacy, including the use of direct and indirect suggestions, symbolic imagery, and metaphors.

Hypnosis

Hypnosis has been described as both a state of altered consciousness (Hammond, 1998; Kahn & Fromm, 1992) and a “relaxed state of focused attention” (Hammond, 1998, p. 1). During hypnosis, suggestions pertaining to thoughts, perceptions, sensations, feelings, and/or behavior can be provided to influence change. Hypnosis is believed to be effective because it allows hypnotized individuals to focus attention on ideas and

motivation, and in this way to utilize their full ability for mental control (Hammond, 1998). The American Psychological Association Division 30, Society of Psychological Hypnosis (2003), definition of hypnosis is as follows:

Hypnosis typically involves an introduction to the procedure during which the subject is told that suggestions for imaginative experiences will be presented. The hypnotic induction is an extended initial suggestion for using one's imagination, and may contain further elaborations of the introduction. A hypnotic procedure is used to encourage and evaluate responses to suggestions. When using hypnosis, one person (the subject) is guided by another (the hypnotist) to respond to suggestions for changes in subjective experience, alterations in perception, sensation, emotion, thought or behavior. Persons can also learn self-hypnosis, which is the act of administering hypnotic procedures on one's own. If the subject responds to hypnotic suggestions, it is generally inferred that hypnosis has been induced. Many believe that hypnotic responses and experiences are characteristic of a hypnotic state. While some think that it is not necessary to use the word "hypnosis" as part of the hypnotic induction, others view it as essential.

Details of hypnotic procedures and suggestions will differ depending on the goals of the practitioner and the purposes of the clinical or research endeavor. Procedures traditionally involve suggestions to relax, though relaxation is not necessary for hypnosis and a wide variety of suggestions can be used including those to become more alert. Suggestions that permit the extent of hypnosis to be assessed by comparing responses to standardized scales can be used in both clinical and research settings. While the majority of individuals are responsive to

at least some suggestions, scores on standardized scales range from high to negligible. Traditionally, scores are grouped into low, medium, and high categories. As is the case with other positively-scaled measures of psychological constructs such as attention and awareness, the salience of evidence for having achieved hypnosis increases with the individual's score.

To fully understand the process of hypnosis, and how it is used in the current study, one must understand that there have been various theories formulated to explain the nature of hypnotic phenomena (Frederick & McNeal, 1999). State and non-state are the two general categories in which the majority of hypnosis theories can be categorized. State theorists view hypnosis as an altered state of consciousness embodying many unique characteristics. Non-state theorists support more social and psychological explanations of hypnosis. For the purpose of this study, hypnosis is explained by state theorist E.R. Hilgard's (1999) neodissociation theory of hypnosis.

People supporting Hilgard's theory tend to view all hypnotic responding as nonvolitional and involuntary, meaning that any response to hypnotic suggestions is performed automatically and without the hypnotized individual's conscious intent (Sapp, 2000; Woody, Bowers, & Oakman, 1992). Although, this explanation is congruent with the reports of hypnotized individuals, it does not entail a lack of control in the experience of the individual. On the contrary, although hypnotized individuals report nonvolitionally responding to suggestion they also state that they are well aware of being able to terminate their hypnotic responding at their own discretion (Kirsch as cited in Sapp, 2000).

Hilgard (1992) explains that this phenomenon stems from a cognitive subsystem managed by an executive ego that is capable of shifting the hierarchical arrangement of subsystems. To begin, a central regulating mechanism facilitates and inhibits a range of subsystems consisting of “habits, attitudes, prejudices, interests, and specialized abilities” (Hilgard, 1992, p. 91). The subsystems are actuated in response to the situation at hand. An activated subsystem has the ability to function somewhat automatically by gaining autonomy as conscious awareness of this subsystem recedes. This forms a habitual action, making it possible to perform multiple activities without full awareness of all the activities currently taking place.

Hilgard (1992) states that when an individual is hypnotized the hypnotist is allowed to control part of the individual’s central executive functioning. Therefore the individual is able to respond to and experience what the hypnotist suggests. Although an amount of control is handed over to the hypnotist the individual retains primary control over the functioning and altering of their cognitive subsystems. They maintain the ability to refuse or accept the hypnotic suggestions and to answer any questions asked. The extent to which the individual will respond to the hypnotist’s suggestions depends on the client’s current circumstances and relationship with the hypnotist.

When the central executive functioning is divided during hypnosis one often finds that the planning portion of the executive functioning is inhibited. Thus the individual being hypnotized finds it easier to follow the hypnotist’s suggestions rather than undertake independent modes of action. Upon successful separation of the executive functioning the individual is ready to respond to the hypnotist’s suggestions. Thus, the individual is an active participant in hypnosis; fully aware of the amount of control they

allow the hypnotist to maintain. Sometimes the individual will show initiative in hypnosis by formulating appropriate fantasies to correspond with the hypnotist's suggestions, thereby deepening the effect of hypnosis. The division of the central executive functioning further diminishes the need for reality testing. Therefore hypnotized individuals often do not feel compelled to test or question the suggestions provided to them by the hypnotist (Hilgard, 1992).

Although there is a lack of initiative and reality testing during hypnosis, the individual is usually able to monitor their functioning normally. The subsystems of the hypnotized individual monitor that which is taking place during hypnosis and uncritically accept the suggestions and reality distortions offered by the hypnotist. Only those individuals who become deeply engrossed in hypnosis will experience less of an ability to monitor their functioning as an outside observer (Hilgard, 1992).

In summary, Hilgard's (1992) neodissociation theory accounts for the nonvolition and involuntary responses characteristic of hypnotized individuals through the influence of hypnosis on the hierarchical arrangement of their cognitive subsystems. During hypnosis an individual's executive functioning is divided allowing the hypnotist some control over their subsystems. The individual finds that she/he is able to monitor her/his responses to the hypnotist's suggestions in an uncritical manner void of the need for reality testing. Through the divided executive functioning and uncritical monitoring the individual is able to experience a range of hypnotic phenomena.

Hypnosis has been shown to be an effective tool in treating such areas as eating disorders, depression, grief, coping, substance abuse, smoking, overemotionality, low self-esteem, anxiety, and phobias (Hammond, 1990). Previous research has also

demonstrated the usefulness of hypnosis for ego-strengthening and low self-concept. Carich (1990), for example, describes ego-strengthening as “reinforcement of positive attributes of behavior and emotions through repetition which eventually helps a person change his/her perception of self” (p. 498). During ego-strengthening suggestions of encouragement are used by the individual at both conscious and unconscious levels. This encouragement helps provide the individual with a greater sense of self-worth and an improved self-concept. Frederick and McNeal (1999) explain that ego-strengthening broadens the ego’s range and influence as well as increases the efficiency of the ego functions. The researchers further note that ego-strengthening has occurred when “the organization of ego functions has become stronger and more capable, and the self is experienced as stronger, more adequate, and more effective in coping with both the internal and external worlds” (p. 136).

In an experimental study, Koe and Oldridge (1987) investigated participants’ hypnotic responsiveness and change in self-concept according to the type of esteem suggestions implemented. The researchers worked with 52 volunteers ranging from age 19 to 52 years old. To control for achievement differences influenced by intelligence all participants were administered the California Test of Mental Maturity-Short Form (CTMM-SF). The following week self-concept was assessed using the Tennessee Self-Concept Scale (TSCS). Reading performance was assessed with the Nelson-Denny Reading Test (N-D). Participants then met in a small group to be administered the Harvard Group Scale of Hypnotic Susceptibility (HGSHS). To ensure equal susceptibility in each group, participants were ordered and divided depending on their HGSHS scores into four small groups. The focus of each group differed between achievement, self-

esteem, other-esteem, and combined-esteem. The groups returned for one-hour hypnotic sessions once per week for four weeks. During each session a systematic relaxation procedure was administered followed by an induction modified from the Stanford Hypnotic Susceptibility Scale (SHSS:C), and a deepening procedure constructed by the researchers. Hypnotizability was checked using the Long Stanford Scale (LSS) and immediately followed with posthypnotic treatment suggestions. Slightly modified versions of Hartland's (1971) Ego-Strengthening Technique suggestions were administered to each group.

The suggestions varied in directness and perceptions of significant others opinions. Intelligence (CTMM-SF), initial performance (TSCS/N-D), hypnotic susceptibility (HGSHS), hypnotic depth (LSS), and gender were controlled for using hierarchical multiple regression approximation of analysis of covariance. Group equivalency on the measures for intelligence, initial performance, and hypnotic susceptibility were tested using multivariate analysis of variance. Results showed that regardless of the type of esteem suggestion received, susceptible subjects (easily hypnotized subjects) had significantly higher self-concept scores ($F = 4.53, df = 1, 34; p < .05$). Improvement in self-concept for susceptible subjects was attributed to feelings of increased self-satisfaction and adequacy. Therefore, the results suggest that ego-strengthening through hypnosis can be used effectively to improve personal self-concept and self-satisfaction. The authors also note that ego-strengthening may be "a motivational catalyst for susceptible subjects" (p. 48).

Ego-strengthening hypnotic suggestions have further been shown to increase one's internal locus of control, in turn heightening self-esteem, building morale, and

increasing feelings of control over the environment and self. Stanton (1979) recruited 40 university students to participate in a study investigating the effects of hypnotic ego-enhancement on increasing internal control. The participants were randomly divided into two groups. The experimental group participated in three half-hour sessions in which they experienced hypnotic treatment during a period of three weeks. In contrast, the control group participated in three half-hour sessions in which the participants discussed their behavior and its relationship to locus of control. The hypnotic treatment involved suggestions and imagery utilizing ideas of confidence, calmness, relaxation, happiness, and the power human beings have to change themselves. Changes in participant's internal control were measured by pre- and post-test responses to Rotter's 1-E Scale. Stanton found that both the experimental and control group experienced an increase in their internal locus of control, however the experimental group exhibited a greater increase than the latter. Furthermore, a follow-up investigation, 6 months later, showed that the experimental group retained much of the gain in internal locus of control. Comments provided by many of the participants in the experimental group, at this time, conveyed a sense of empowerment, motivation to achieve their goals, and a sense that what they are doing matters.

Overall, the effects of hypnosis on ego-strengthening and self-esteem have been shown to be quite valuable for some individuals. Hypnosis has increased self-confidence, enhanced self-efficacy, and feelings of mastery (McNeal & Frederick, 1993). It is believed that ego-strengthening suggestions encourage individuals to use their inner resources and actively call upon their abilities to cope. According to McNeal and Frederick: "all successful ego-strengthening serves as an integrating mechanism that

bridges the gap between insight and the actualization of change” (p. 177). When individuals begin to apply relevant attributes to their self-perceptions they are better able to see them in a positive light. Reinforcing these attributes encourages increased self-confidence and trust in the general ability to succeed, which eventually becomes part of the individual’s overall self-view (Carich, 1990). This change in self-perception perpetuates greater and more positive change in other areas of a person’s life.

In the current study, hypnotic suggestions were used to help build academic self-efficacy among first-generation college students. Because first-generation college students have been identified as “at-risk” in the college environment, interventions have been deemed necessary to help many in this population succeed. Due to the multidimensional form of self-efficacy, targeting self-efficacy beliefs in an intervention for first-generation students may facilitate their success in numerous ways. Hypnosis offers individuals a chance to use their natural hypnotic ability to focus their attention on positive attributes, providing them with the opportunity to actively work on increasing self-efficacy. Being in hypnotic trance helps to facilitate the effectiveness of the intervention used (Frederick & McNeal, 1999). When one is experiencing a hypnotic state they have “increased access to imagery, fantasy, emotion, and memories during a period of decreased defensiveness and increased receptiveness” (Frederick & McNeal, p. 140). Learning hypnosis through heterohypnosis, undergoing hypnosis with the aid of a hypnotist, and self-hypnosis should provide individuals with a sense of control and personal involvement, giving a feeling of empowerment that may not already be possessed by individuals with low self-efficacy.

Frederick and McNeal (1999) strongly support the use of self-hypnosis for ego-strengthening. The authors explain: “Self-hypnosis allows the patient to feel a greater sense of mastery and control; he knows that he has methods he can use on his own when he needs them” (p. 168). When individuals are taught self-hypnosis they are empowered to use the hypnotic suggestions at times that are beneficial to them. Their use of self-hypnosis further reinforces the imagery and hypnotic suggestions. Even in studies comparing self-hypnosis to heterohypnosis researchers have found that the two are comparable (Ruch, 1975). In his exposition on neodissociation theory Hilgard (1992) explains that all hypnosis is basically self-hypnosis and identifies heterohypnosis as “aided self-hypnosis” (p. 94). During self-hypnosis the individual’s central executive function separates so that both the role of the hypnotized and hypnotist are represented.

Current Study

Given the above, this study investigated the academic self-efficacy of two groups of first-generation college students. An experimental group was given the opportunity to learn ego-strengthening hypnotic suggestions designed to build academic self-efficacy. The academic self-efficacy and academic achievement of the experimental group was compared with the academic self-efficacy and academic achievement of a control group comprised of first-generation college students who have not received ego-strengthening suggestions.

CHAPTER THREE

RESEARCH METHODOLOGY

The current study uses an experimental design to examine the hypotheses outlined in the previous chapter. The independent variable was the use of hypnosis with suggestions for increased academic self-efficacy. The dependent variables are academic self-efficacy and GPA.

Participants

Thirty-four undergraduate students (27 women and 7 men) from Washington State University volunteered to participate. Three participants did not complete the study, leaving a total number of thirty-one participants (24 women and 7 men). Participants were recruited through email list-serves, announcements held during meetings, and flyers posted around campus. All participants were self-identified first-generation college students, that is, students whose primary caregivers did not receive a 4-year college degree. Participant demographics were as follows: 16 Anglo-Americans, 5 Chicana/o/Latina/o, 6 Asian Americans, 3 African Americans, and 1 Native American. Participants consisted of 6 freshman, 5 sophomores, 14 juniors, and 6 seniors.

Instruments

Items drawn from Bandura's "Self-Efficacy for Self-Regulated Learning" subscale (2001) and Owen and Froman's (1988) College Academic Self-Efficacy Scale (CASES) were combined to create a 44-item Academic Self-Efficacy Scale. Bandura's "Self-Efficacy for Self-Regulated Learning" subscale is an 11-item Likert scale taken

from his “Children’s Self-efficacy Scale” (unpublished). The alpha coefficient (Rule & Griesemer, 1996) for this subscale is .81. The CASES has an alpha internal consistency estimate of .90 and .92. Over an 8-week period the stability estimate was .85. The CASES also shows strong incremental validity. Three primary factors emerge within CASES: “(1) Overt, Social Situations, (2) Cognitive Operations, (3) Technical Skills” (Owen & Froman, 1988). The Academic Self-Efficacy Scale constructed for the study was used to determine any changes in individual participant’s academic self-efficacy during the course of the study.

The participant’s hypnotizability was measured using the Stanford Hypnotic Clinical Scale (SHCS), a five-item scale developed by Hilgard and Hilgard (1983). The items embodied within the SHCS include: moving hands (a motor item used to introduce the participant to suggestion responsiveness), experiencing a dream (useful in depicting the participants attitude toward hypnosis), age regression (often used in therapy), posthypnotic suggestion (related to ability to continue hypnotic experience), and posthypnotic amnesia. When correlated with the Stanford Hypnotic Susceptibility Scale (SHSS:C), a previous measure used for hypnotizability, the reliability estimate of the SHCS correlated at .72. Participant’s range of scores and the number classified at different levels of hypnotizability are shown in Table 1.

Procedure

All participants were scheduled individually to attend an initial two-hour meeting with the investigator. During this meeting, the participant was provided with a written consent form detailing the outline of the study. The consent form included: 1) an

agreement to participate in the study; 2) an agreement that provided the investigator with permission to access the student's incoming GPA, mid-semester grades (if available), final grades, and SAT/ACT scores; 3) an agreement to be contacted through mail, email, and phone. The participants noted their preferred method of being contacted by the investigator and their preferred method of receiving the Academic Self-Efficacy Scale at the termination of the study. All participants were given a choice of having the Academic Self-Efficacy scale mailed to them, sent to them through e-mail, or given to them in-person by scheduling another appointment. Twenty-three participants opted to receive the scale through email, eight chose mail, and three completed the scale in a third meeting with the investigator.

The approximate time of completion of the Academic Self-Efficacy scale was between 7-10 minutes. Upon completion of the scale, the investigator debunked any myths pertaining to hypnosis and answered all questions and concerns regarding hypnosis.

After the participant was adequately informed about hypnosis, an assistant¹ trained in hypnosis administered the SHCS. The SHCS took approximately one hour to administer. The participant's hypnotizability was scored and she/he was assigned to either the immediate-treatment group or the delayed-treatment group. The participants were matched based upon their hypnotizability and gender.

Eighteen participants were assigned to the immediate-treatment group and 16 participants were assigned to the delayed-treatment group. The participants assigned to the delayed-treatment group were informed that they would be contacted in approximately one month after the initial meeting. At this time they would be

administered the Academic Self-Efficacy Scale and, upon its completion, provided with the option of receiving treatment.

Participants assigned to the immediate-treatment group received treatment during the initial meeting, immediately after having been administered the SHCS. The investigator hypnotized the participants using a protocol developed for the purpose of the study consisting of academic self-efficacy building suggestions. The approximate time to administer the protocol was 20 minutes.

The participants were then taught self-hypnosis and provided with three primary-confidence building self-hypnosis suggestions: “I am confident in my ability to be a successful student;” “I can successfully complete the tasks set out before me,” and “I am capable of succeeding in college.” At the end of the meeting participants were provided a handout consisting of step-by-step instructions detailing the process of undergoing self-hypnosis. They were also provided a schedule to document their frequency of practicing self-hypnosis. All participants in the immediate-treatment group were instructed to practice self-hypnosis at least twice a day until they received the Academic Self-Efficacy Scale at the termination of the study.

Approximately seven days after the initial meeting participants in the immediate-treatment group attended a second meeting with the investigator. The second meeting lasted around 30 minutes. During this meeting the investigator administered the academic self-efficacy hypnosis protocol once more and confirmed that the participants’ were correctly practicing the self-hypnosis suggestions. Any questions or concerns regarding the participants’ self-hypnosis practice were answered at this time.

The Academic Self-Efficacy Scale was administered four weeks after the initial meeting with each participant by the preferred method noted on the participants written consent form. At this point, one participant from the immediate-treatment group and two participants from the delayed-treatment group were dropped from the study due to failure to return the Academic Self-Efficacy Scale post-test. The participants in the immediate-treatment group were encouraged to continue their self-hypnosis practice and the participants in the delayed-treatment group were invited to learn self-hypnosis and receive the academic self-efficacy building hypnotic suggestions. None of the participants from the delayed-treatment group opted to receive the academic self-efficacy building hypnotic suggestions.

Table 1

Immediate- and Delayed- Treatment SHCS Scores

SHCS Scores	Immediate – Treatment (N=17)	Delayed- Treatment (N=14)
5 = High	6	3
4 = Above Average	3	2
3 = Average	5	7
2 = Below Average	2	1
1 = Low	1	1

CHAPTER FOUR

RESULTS

The purpose of this study was to investigate the effects of using hypnosis as an adjunct for improving the academic self-efficacy of first-generation undergraduate students. The first hypothesis predicted that participants in the immediate-treatment group would have higher academic self-efficacy scores than participants in the delayed-treatment group. To test this hypothesis, an independent-samples t-test was conducted comparing the Academic Self-Efficacy Scale post-test scores for the immediate- and delayed-treatment groups. The results showed no significant difference between the delayed-treatment group ($M = 5.18, SD = .7028$) and immediate-treatment group post-test scores ($M = 4.92, SD = .7002$), $t(29) = 1.0, p = .313$. However, further inspection of the data revealed differences on the pre-test. T-test comparisons of pre-test scores showed a significant difference between the delayed-treatment group ($M = 4.92, SD = .90$) and immediate-treatment group at pre-test ($M = 4.27, SD = .82$), $t(29) = 2.1, p = .045$.

In order to account for this difference a one-way analysis of covariance was conducted. However, the preliminary analysis evaluating the homogeneity-of-slopes assumption indicated that this was not appropriate.

Further analysis investigated within group differences. T-tests were conducted on pre- to post-test scores for the treatment groups and results showed that the immediate-treatment group ($p < .023$) and the delayed-treatment group both scored significantly higher at post-test ($p < .021$, Table 2). However, change scores further indicated that the

significant increase of the immediate-treatment group post-test scores was greater (.64) than that of the delayed-treatment group (.25).

The second hypothesis which predicted that the immediate-treatment group would have higher academic grades than the delayed-treatment group at post-test was evaluated using an independent t-test. Fall semester grades preceding the study and the Spring semester grades following the study were analyzed. The results indicated no significant difference in academic grades between the delayed-treatment group ($M = 3.04$, $SD = .54$) and the immediate-treatment group at post-test ($M = 2.92$, $SD = .79$), $t(27) = .44$, $p = .66$ (Table 3). However, within group change scores do indicate a slight decrease in academic grades for the delayed-treatment group (-.09) and a slight increase for the immediate-treatment group (.17).

Initially, the first hypothesis was tested using a t-test to evaluate post-test scores. When no support was found for the hypothesis, further inspection of the data showed a significant difference at pre-test. T-tests were then conducted to investigate the possibility of within-group differences. Results indicated a significant increase in post-test scores for the immediate- and delayed- treatment groups. Results also showed that the immediate-treatment group had a greater increase than that of the delayed-treatment group. The second hypothesis was investigated by conducting a t-test using the preceding Fall and following Spring semester grades. No significant difference was found between groups.

Table 2

Academic Self-Efficacy Scale Pre- and Post-test Results

Groups	N	<u>Pre-test</u>		<u>Post-test</u>		p<
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Immediate-Treatment	17	4.27	.82	4.92	.70	.021
Delayed-Treatment	14	4.92	.90	5.18	.70	.023

Table 3

Means and Standard Deviations for Fall and Spring Semester GPAs

Status	Group	N	M	SD
Fall GPA	Immediate-Treatment	16	2.75	.85
	Delayed-Treatment	13	3.13	.49
Spring GPA	Immediate-Treatment	16	2.92	.79
	Delayed-Treatment	13	3.04	.54

CHAPTER FIVE

DISCUSSION

The hypothesis that first-generation college students in the immediate-treatment group will have a higher academic self-efficacy at the termination of the study than first-generation college students in the delayed-treatment group was not supported. However, the hypothesis was based on the assumption that both the immediate- and delayed-treatment groups would be equal in level of academic self-efficacy at pre-test. This assumption was inaccurate. Although, the academic self-efficacy of the immediate-treatment group did show a significant increase during the study this did not provide support for the hypothesis because the immediate-treatment group was significantly lower than the delayed-treatment group in academic self-efficacy at the onset of the study. At the end of the study the immediate-treatment groups Academic Self-Efficacy Scale scores were no longer significantly lower than those of the delayed-treatment group.

Similarly, there was no support for the second hypothesis that academic grades will significantly increase as a result of receiving academic self-efficacy building hypnotic suggestions. Again it should be noted that the immediate-treatment group's semester grades did increase; however, the increase was not significant. Furthermore, the delayed-treatment group semester grades were lower throughout the year. This may suggest that any significant changes in academic grades would take more time to become apparent.

Congruent with the increase in the immediate-treatment groups' academic self-efficacy scores, a few of the participants in this group reported positive feedback during treatment. At the end of the study when the investigator contacted participants in the immediate-treatment group, some feedback suggested evidence of decreased stress, increased feelings of relaxation, and a greater sense of efficacy for completing tasks. One of the participants stated: "It helps me relax and I don't feel so overwhelmed." Another participant explained: "It's so easy to do and I feel more energized to get things done." Some participants indicated positive effects at the one-week follow-up. The following comments concerning tests and study skills were reported:

"I took a test right after [the initial meeting with the investigator] and felt that I did the best that I have ever done"

"It helps me study. I noticed that I was able to really concentrate."

"I usually feel anxiety during a test, but this time I wasn't nervous at all."

These comments suggest that individually, participants experienced a wide variety of positive effects from the hypnotic suggestions used.

The positive reports in different domains of academic self-efficacy may indicate areas of academic self-efficacy that were more important for individual participants to increase. Frederick and McNeal (1999) emphasize the uniqueness of individuals and the increased effectiveness hypnotic suggestions have when they are tailored to meet the individuals needs. In other words, participants who increase their efficacy in specific academic activities may inadvertently tailor their self-hypnosis to benefit particular areas of academic weakness. Future research could focus on the benefits of adapting hypnotic suggestions to meet specific academic needs.

As already mentioned, the lack of support for the hypothesis predicting higher academic grades for participants in the immediate-treatment group may have been influenced by the amount of time the participants were involved in the study. Another confounding variable may be the time the participants chose to be a part of the study. Although participants were recruited throughout the majority of the academic year, a greater number of participants chose to volunteer close to the termination of the semester session. At this point in the semester it is extremely difficult to change one's grade in a course. Therefore, time may have been a factor. That is the study did not allow a sufficient amount of time to show a significant change in academic grades.

In discussing the results it is necessary to acknowledge not only the limitations of the study, but provide suggestions for future research as well. The primary reason that the initial hypothesis was not supported was due to the unfounded assumption that the immediate- and delayed-treatment groups would be equal in level of academic self-efficacy. Because the groups were not equal at the beginning of the study, the hypotheses could not be adequately investigated. To avoid this mishap in future investigations it is suggested that participants are matched not only by hypnotizability, but also by Academic Self-Efficacy Scale scores. This would ensure both groups have an equal level of academic self-efficacy at the beginning of the study and have an equal chance of surpassing one another at the termination of the study.

During the course of the study, participants provided remarks that may aid the design of future investigations. Participants frequently noted difficulty in obtaining the same depths of hypnosis they had experienced with the investigator. A few other participants felt that they were unable to experience self-hypnosis in a short amount of

time and therefore did not practice it as regularly as was expected. Because only 11 of the initial 18 participants in the immediate-treatment group returned their self-hypnosis practice sheet it is not known exactly how often each participant practiced self-hypnosis. However, among the 11 practice sheets returned only two individuals practiced self-hypnosis the requested minimum of two times per day. Because repetition is essential to the increased ease of entering a state of self-hypnosis and increased receptiveness to suggestions during this state (Fromm et al., 1981), this is an apparent drawback. Fromm et al. notes, “As the subject feels more comfortable in the self-hypnotic state, he spends less time worrying about failures in self-suggestion, his ability to enter trance quickly and easily increases, as does the fading of the general reality orientation, trance depth, and absorption” (p. 189). Future research should devote more time to developing the participants’ skill and adeptness at using self-hypnosis.

Another limitation of the study includes the possibility of a ceiling effect. Both measures used to evaluate changes in academic self-efficacy possessed an achievable limit to the amount of self-efficacy that could be reported. The Academic Self-Efficacy Scale ranged in responses from 1 through 7. Therefore, participants who scored higher on the pre-test were less likely to indicate a significant increase in self-efficacy. Similarly, participants who already possessed a GPA closer to the 4.0 maximum could not have shown a significant increase in academic grades. Future investigations should attempt to find measures of academic self-efficacy that will not suffer from a ceiling effect, meaning there will not be a set limit of achievement.

Finally, the study is based on a small sample size. Even with the limited amount of time encompassed by the study, a more significant change in self-efficacy as a result of

the treatment may have been evident with a greater number of participants. Furthermore, a larger sample size would minimize the effects that are evident from other factors that influence academic self-efficacy. As Bandura (1997) acknowledges, self-efficacy beliefs are influenced by a wide variety of experiences including mastery experiences, vicarious experiences, verbal persuasion, and physiological and affective states. It is difficult to separate the effectiveness of hypnotic suggestions from the influence of these other factors when there are few participants. Future investigations in this area would benefit from a larger sample.

Although, the results have been confounded by a number of variables, the contribution of this study should not be overlooked. The study has investigated two areas that have been the subject of only limited research: retention of first-generation college students and hypnosis. The attention brought to these much needed issues can generate newer and more sophisticated studies. Furthermore, the comments provided from participants in the immediate-treatment group show evidence of a positive effect obtained from the use of self-hypnosis and the utilization of hypnosis as a tool. This increases awareness of hypnosis in the general population and provides a greater depth of understanding regarding the possible use of hypnosis. Implementing minor alterations in study design can easily offer a stronger and more substantial research design for future studies.

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APPENDIX A

Self-Efficacy Scale

This questionnaire is designed to help us get a better understanding of the kinds of things that are difficult for students. Please rate how well you can do the things described below by circling the appropriate number. Your answers will be kept strictly confidential. Please give your frank opinions.

1. How well can you finish your homework assignments by deadlines?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

2. How well can you study when there are other interesting things to do?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

3. How well can you concentrate on school subjects?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

4. How well can you take class notes of class instruction?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

5. How well can you participate in a class discussion?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

6. How well can you use the library to get information for class assignments?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

7. How well can you plan your school work?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

8. How well can you organize your school work?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

9. How well can you remember information presented in class and textbooks?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

10. How well can you arrange a place to study without distractions?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

11. How well can you motivate yourself to do school work?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

12. How well can you participate in class discussions?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

13. How well can you take well-organized notes during a lecture?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

14. How well can you answer a question in a large class?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

15. How well can you answer a question in a small class?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

16. How well can you take "objective" tests (multiple-choice, T-F, matching)?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

17. How well can you take essay tests?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

18. How well can you write a high quality term paper?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

19. How well can you listen carefully during a lecture on a difficult topic?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

20. How well can you tutor another student?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

21. How well can you explain a concept to another student?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

22. How well can you ask a professor in class to review a concept you don't understand?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

23. How well can you earn good marks in most courses?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

24. How well can you study enough to understand content thoroughly?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

25. How well can you run for student government office?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

26. How well can you participate in extracurricular events (sports, clubs)?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

27. How well can you make good use of the library?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

28. How well can you make professors respect you?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

29. How well can you attend class regularly?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

30. How well can you attend class consistently in a dull course?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

31. How well can you make a professor think you're paying attention in class?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

32. How well can you understand most ideas you read in your texts?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

33. How well can you understand most ideas presented in class?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

34. How well can you perform simple math computations?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

35. How well can you use a computer?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

36. How well can you master most content in a math course?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

37. How well can you talk to a professor privately to get to know him or her?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

38. How well can you relate course content to material in other courses?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

39. How well can you challenge a professor's opinion in class?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

40. How well can you apply lecture content to a laboratory session?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

41. How well can you get good grades?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

42. How well can you spread out studying instead of cramming?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

43. How well can you understand difficult passages in textbooks?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

44. How well can you master content in a course you're not interested in?

1	2	3	4	5	6	7
Not well at all		Not too well		Pretty well		Very Well

APPENDIX B

Information Statement about Clinical Hypnosis

An important part of the use of hypnosis in the treatment of any disorder, whether physiological or psychological, is the understanding of hypnosis as a sound clinical treatment. Debunking popular beliefs about what hypnosis is and is not, and about what hypnosis can and cannot do, are a vital part of any research intended to weigh the outcome of hypnosis based interventions. Spiegel and Spiegel (1979) explain several areas of misconception surrounding hypnosis which need clarification before a subject agrees to undergo therapy or treatment with hypnosis.

First, **hypnosis is not sleep**. In fact, the subject, if he or she is to enter into a trance state, becomes more alert and awake than usual. The subject is entering a state of intense concentration. In hypnosis, awareness is intensified. Therefore, **hypnosis can be defined as a state of highly focused attention combined with intense concentration**.

Second, **hypnosis is not a state of mind control** which is exerted over the subject, but rather a state of trance which is induced with the help of a therapist or practitioner in a way which allows the subject to explore his or her own trance capability as he or she desires. An individual can not be made to speak or engage in an activity, while under hypnosis, that is against his or her will or contrary to his or her desires and personal beliefs.

It is also important to note that **hypnosis is not amnesia, and does not cause amnesia**. Individuals undergoing hypnosis testing will remember everything that has occurred during the testing session before the session ends. Although an amnesic response can be created when an individual is in hypnosis, these effects are temporary, and under the individual's control.

Third, **hypnosis is not dangerous**. In fact, the use of hypnosis in a therapeutic setting has been sanctioned by the American Psychiatric Association (APA) as well as by the American Medical Association (AMA).

Fourth, **women are no more hypnotizable than are men. Hypnotizability is an individual ability** and has not been linked to any one "type" of individual.

Fifth, hypnosis in and of itself is not therapy. The state of **hypnosis is a specific kind of attentional ability** which can be expanded upon to create a receptive therapeutic environment, but in itself, hypnosis is not a therapy.

And lastly, hypnosis is not simply a superficial psychological phenomenon. In fact, **hypnosis is a neurological phenomenon with psychological features** (Spiegel & Spiegel, 1979).

APPENDIX C

Self-Efficacy Building Hypnosis Protocol

All right. Now I shall hypnotize you once more...similar to how you were hypnotized before. After I hypnotize you I will then teach you how to do self-hypnosis. For the self-hypnosis to be most effective we need to first think of the most efficient way for you to enter hypnosis. For example, if there is a word you would like to concentrate on...or an image you would like to hold in your minds eye. What do you think would work best for you?

Ok. Then we will use that for when you practice self-hypnosis.

Please close your eyes and listen carefully to what I say. As we go on, you will find yourself becoming more and more relaxed...your whole body will begin to relax just like before...except even more this time...your muscles loosen up...release...relaxing into the chair in which you sit...letting yourself be fully supported...relaxing more and more...and your thoughts begin to slow...along with your breath... slowly flowing in and out...you once more begin to notice the changes in your body as it relaxes even more...tension eases away...muscle groups loosen...letting your body rest comfortably in the chair in which you sit...relaxing more and more...feeling fully supported...and you can feel your breathing...your chest rising and falling with smooth deep breaths...and with each breath you relax even more...in and out...with each breath tension fades away...slowly fading away...and with each breath your thoughts focus more and more only on what I am saying...you feel deeply relaxed...and perhaps a little drowsy, but **at no time will you have any trouble hearing me.** Your body will continue to rest comfortably...your breathing will continue to help you go deeper and deeper into hypnosis...and you will continue in this relaxed state until it is time for you to become more alert.

Soon I will begin to count from one to twenty. As I count you will feel yourself going down further and further into this deeply relaxed hypnotic state. In this hypnotic state, you will be able to listen carefully to things that I suggest...things that will be acceptable to you...things that you may already know and realize...

One...you are becoming more and more deeply relaxed...two...down, down into a deeper, tranquil state of mind...three...four...with each breath, in and out; you relax even more...five...six...seven...sinking deeper and deeper. Nothing will disturb. You are finding it easy just to listen to the things that I say...eight...nine...ten...halfway there...always deeply relaxed...eleven...twelve...thirteen...fourteen...fifteen...although deeply relaxed, you can hear me clearly. You will always hear me distinctly no matter how hypnotized you are...sixteen...seventeen...eighteen...deeply relaxed. Nothing will disturb you...nineteen...twenty...completely relaxed.

Now I want you to think about how hypnotized you are right now...and I want you to deepen your hypnosis even more...go deeper and deeper...until you feel that you are twice as deep as you were when I stopped counting...when you feel that you are as deep in hypnosis as you feel comfortable going...please lift your right index finger.

(Wait until finger lifts)

You can change your position any time you wish. Just be sure you remain comfortable and relaxed.

You are very relaxed now and pleasantly hypnotized. You will find it easy to pay close attention to the things that I say...and think about what I suggest...it will make sense to you...and be acceptable...and what I suggest may even be things that you already know...that you have known all along.

Now...I want you to think about your role as a student...and the tasks laid out before you...attending classes...taking tests...applying what you have learned in class to other areas of your life...and you are able to visually see yourself in your minds eye accomplishing these many tasks that you have as a student...taking well-organized notes in class...listening carefully to the lecture...confidently asking questions...completing your coursework by the required deadlines...throughout each of these tasks you can see yourself confidently completing them.... Trusting in your skill...and enjoying the motivation that stems from your belief in your ability to successfully accomplish these tasks...whether it is consciously or unconsciously you are sure of your ability to successfully complete the tasks placed before you as a student...in fact...when you think of being here at WSU...seeing yourself in your minds eye...walking around campus...attending your classes...studying for your tests... when you carefully think of your coursework...and what it means to be a successful student...you realize that this is well within your ability ... consciously or unconsciously...you have known all along that you have what it takes to be a successful student ...whether this is conscious or unconscious....you are sure of yourself....you trust in yourself...realizing this...your ability as a student...your confidence in your skills...knowing that you can accomplish that which you set out to do... may bring forth a feeling of empowerment...knowing that you have this trust in yourself....and realizing that whatever you truly want to accomplish....can be accomplished...by you...strengthens even more your faith in yourself...any doubt that may exist from outside sources...fades away...erasing itself from your thoughts...because you know....that you can successfully complete the tasks laid out before you...you sense this confidence deep within your being...you *can* be a successful college student...

Now in a few seconds...I will count backwards from 10...and you will slowly begin to come out of hypnosis...at 5...not before...your eyes will open...but you will not be completely alert until I reach 1...at 1 you will be wide, awake, and alert...you will remember the confidence and/or empowerment that you may be feeling now...this feeling will stay with you...and when you are at home and practicing the suggestions that I give to you by yourself...you will find that this confidence continues to strengthen and build with each time you practice...and you will find that it will be easy for you to practice these suggestions on your own under self-hypnosis...you will know that it is time to go under self-hypnosis when you take three deep breaths and _____....this will be your cue to let yourself relax and to let your thoughts slow..._____ will be your cue to undergo self-hypnosis.

All right, ready...ten...nine...eight...seven...six...**five**, open your eyes...four...three...two...one. **Wide, awake, alert, and refreshed.**

How do you feel? Do you feel alert?

APPENDIX D

Practicing Self-Hypnosis

Remember, all hypnosis is self-hypnosis. Self-hypnosis can be practiced many times throughout the day just by turning off awareness to the many different sensations the body experiences and focusing the attention elsewhere. You are at all times in control of your own hypnotic trance.

You are asked to practice these suggestions at least two times a day. The suggestions can take as little time or as much time as you need to practice them. Please read the instructions thoroughly before you begin your hypnosis.

1. Find a quiet place, away from any distractions, to sit or to lie down and relax.
2. Make sure that your arms and legs are not crossed and that your arms are resting comfortably by your side.
3. Close your eyes, take three deep breaths, and think of _____ - this is your cue to begin hypnosis.
4. With each breath your body will relax more and more and your thoughts will begin to slow down.
5. When you have reached a relaxed state you will count forwards from one to twenty. At twenty you will be pleasantly hypnotized.
6. You will recite to yourself these 3 suggestions:
 - a. I am confident in my ability to be a successful student.
 - b. I can successfully complete the tasks set out before me.
 - c. I am capable of succeeding in college.
7. You may recite the suggestions as many times as you feel are necessary.
8. When you are ready to come out of hypnosis you will begin to count backwards from ten. At five you will open your eyes. At one you will be wide-awake and alert.

APPENDIX E

Self-Hypnosis Practice Schedule

For my records, please keep a brief account on how many times you practice Self-Hypnosis each day. At the end of the study please staple this sheet and mail it back to me. Thank you.

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ ~~Times Practiced:~~ _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

Date: _____ Times Practiced: _____ Date: _____ Times Practiced: _____

APPENDIX F

Written Consent Form

I, _____, agree to participate in a study conducted by Alisia Caban for her master's thesis on academic self-confidence and hypnosis.

I understand that:

- The purpose of this study is to assess whether hypnosis can be used to build academic self-confidence in first-generation college students. This consent form is provided so that I can make an informed decision on whether I would like to participate in this study.
- My participation in this study is completely voluntary, meaning that I may withdraw from the study at any time without needing to provide an explanation or reason and without any penalty to me.
- I will be asked to complete a scale measuring academic self-confidence, a scale measuring hypnotizability given to me by a research assistant trained in hypnosis, and I will be given hypnosis suggestions concerning academic self-confidence by the researcher who has completed a clinical and experimental hypnosis course and is trained in hypnosis.

The anticipated time for each activity is as follows:

- Academic Self-Confidence Scale: <10 minutes
 - Stanford Clinical Hypnosis Scale: 45 minutes – 1 hr
 - Academic self-confidence hypnosis suggestions: 15-20 minutes
- I am giving the researcher permission to hypnotize me. I understand that hypnosis is a state of focused attention. I realize that when I am under hypnosis I am very much in control. All hypnosis is self-hypnosis. The researcher only acts as a guide. I am the one that is in control of how deep into hypnosis I desire to go. I will be very aware of what is said and I will be able to choose how I experience hypnosis.
 - As part of the Stanford Clinical Hypnosis Scale I will be asked to remember a happy time in elementary school and I will be asked to have a dream. If I have any questions or concerns with this part of the scale the researcher can clarify them and I will be able to choose whether I would like to participate.
 - I may also be asked to practice self-hypnosis. Self-hypnosis is very similar to heterohypnosis in that I am in control at all times. The difference when using heterohypnosis is that the hypnotist is able to act as a guide for me, whereas in self-hypnosis I direct my own trance. However, self-hypnosis can be equally as beneficial as being hypnotized with the aid of a hypnotist.
 - Occasionally there are minor and fleeting side effects to hypnosis such as the potential of getting a headache or feeling tired afterwards. However, the effects can be compared to how one might feel after taking an exam or attending class. If I experience any negative side effects I will be offered a 50-minute counseling session with a trained and licensed psychologist knowledgeable in hypnosis.
 - My participation in this study will last for a total of four months. However the approximate amount of time in which I will be actively participating in the study could range from 2 hours to 3 hours.
 - After the initial meeting I will be contacted at least two more times through my preferred method of being contacted.

I give the researcher permission to access my incoming semester and cumulative GPA, midterm grade (if available), final GPA, and SAT/ACT scores for the purpose of the study. I understand that this study poses no known risks to my health and my name will not be associated in any way with the findings. My participation is confidential and any information received during this study will be used for research purposes only.

I understand that this research study has been reviewed and approved by the WSU Institutional Review Board. If I have any questions or concerns relating to my being a human subject in this study I can contact the WSU Institutional Review Board at (509) 335-9661.

I understand that any questions not addressed by this consent form can be directed to the researcher. I will receive a copy of this form, which I should keep for my records.

Participant's Signature

Date

Researcher's Signature

Date

CONSENT STATEMENT:

As a participant in this study, I give the researcher permission to access my GPA, midterm grade (if available), final GPA, and SAT/ACT scores.

(Participant's Signature)

(Date)

With 1 being my first choice and 3 being my last choice, I prefer to be **contacted** by the researcher through:

Email*

Mail

Phone

***Email is not a completely secure form of communication and the researcher cannot guarantee confidentiality.**

With 1 being my first choice and 3 being my last, I prefer to complete the **academic self-confidence scale** given at the end of the study through:

Email*

Mail

Phone

***Email is not a completely secure form of communication and the researcher cannot guarantee confidentiality.**

PARTICIPANT'S INFORMATION:

Address Apt. # City State Zip Code

Home Phone Number

Second Phone Number

Email (optional, unless
chosen as a preferred form
of contact)

Participant's Name

WSU ID Number

I have read the above comments and agree to participate in this experiment. I understand that if I have any questions or concerns regarding this project I can contact the investigator, Alisia Caban, at 509-332-6556.

(Participant's signature)

(Date)

(Researcher's signature)

(Date)