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Communication and Related Factors Affecting Academic Success Among College Students

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THE FLORIDA STATE UNIVERSITY

COLLEGE OF COMMUNICATION

COMMUNICATION AND RELATED FACTORS AFFECTING ACADEMIC
SUCCESS AMONG COLLEGE STUDENTS

By

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A Thesis submitted to the
Department of Communication
in partial fulfillment of the
requirements for the degree of
Master of Arts

Degree Awarded:
Fall Semester, 2005

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ACKNOWLEDGEMENTS

I would first like to acknowledge the members of my committee who have been extremely supportive throughout this process. I would especially like to thank Dr. Gary Heald who has served as an excellent advisor and has provided me consistent support and guidance during my time at Florida State University. I am also very thankful to all of the faculty and staff in the Department of Communication. And finally I would like to acknowledge my family who has always been incredibly supportive in all of my endeavors.

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ABSTRACT

This study analyzed varying factors affecting college student's graduation intentions. To predict intention, an Elaborated Theory of Planned Behavior model was used to study the effects of attitude, normative, normative communication, and perceived control beliefs while accounting for past classroom experiences with university faculty and administrators. While further analysis must be conducted to test the elaborated model, regression analysis revealed that perceived control and prior classroom experiences were significant predictors of graduation intentions. Future efforts to increase graduation rates should focus on positive classroom experiences and building academic skills that in turn affects student's perceived control over graduation.

CHAPTER I: INTRODUCTION

The goal of this study was to identify the communication and related factors that influenced successful completion of entry level collegiate courses and graduation at a four year institution. In order to ascertain the key factors, an elaborated model based on the Theory of Planned Behavior was used as a theoretical framework. This model was applied to a sample of undergraduate students in order to help explain and predict their intentions to graduate. The following sections first introduce the problem of the high dropout levels among certain college student populations. The next section reviews the literature of the relevant theoretical constructs. The third section discusses the research methods used in this study. The fourth section presents the study results. The final section summarizes the findings, discusses the implications of the study results, and outlines future research issues and opportunities.

Problem Statement

Education is often prized in the United States as a means to be successful. While the completion of a post secondary degree is frequently deemed essential in attaining career opportunities and financial success, there are barriers that prevent individuals from attending and completing college (National group, 2003). These barriers include personal, financial, and institutional problems that often manifest themselves in low college enrollments and high dropout rates. Slightly over 80% of America youth graduate from high school. Of this 80%, less than half (45%) eventually enroll in post secondary education. Current estimates indicate that only a little over one-third (37%) of U.S. youth ages 18 to 24 are enrolled in college. Of those who do enroll in college, the typical dropout rate is around 34% (Archibald, 2004; Cravatta, 1997).

These enrollment and dropout patterns prompt various personal, financial, and institutional questions on issues associated with completing college at four-year institutions. There is little doubt that attendance at a four-year university may mean a shift in available social networks and support systems. This is especially likely if the four-year institution is in a

different community from where the student previously lived. Moreover, previous life experiences and beliefs can affect the ways that students approach the college's social and academic systems (Pascarella & Terenzinni, 1979). Pascarella and Terenzinni found that despite the aspirations and commitments that students bring to college, it is the institution's policies and programs that may create positive experiences for the student.

Paulsen and St. John (2002) expanded upon prior research by exploring factors that may influence an individual's choice to go to college and complete the necessary courses to graduate. Their study focused on the choices students make to achieve educational goals. While family influence, gender, and race affected student's educational decisions, the study also found that social class influenced students' willingness to even pursue higher educational degrees. In addition, they found that students from upper social classes were less motivated by high grades, while those of lower social economical levels were more likely to be motivated by grades.

Davis, Ajzen, Saunders, and Williams (2002) studied high school students and noted that motivations to complete educational programs can be divided into short term and long term goals. Short-term goals are those that typically relate to the students' social and communication environments. Long-term goals associated with completing educational programs involved increasing job and higher salary opportunities. The short-term goals were particularly important in encouraging students to remain in school. Moreover, the motivation to complete educational programs increased as the students completed their second year of high school. Once students found they were capable of completing the current school term, they were more likely to have a favorable outlook towards their ability to complete high school. The issues raised in this study need to be addressed among university students.

In summary, education enrollment and dropout rates are serious issues in U.S. higher education. Both the practical and theoretical features need to be explored to further understand what motivates students to complete their educational programs. This study seeks to discover which elements predict completion of academic programs, through the use of an elaborated Theory of Planned Behavior.

CHAPTER II: LITERATURE REVIEW

The ultimate outcome of completing an academic program and graduating is comprised of the completion of specific program and course requirements. Independently and collectively, students' beliefs and experiences while completing their requirements likely have a major impact on the individuals' motivations to graduate. Specifically, in the process of completing program and course requirements, a number of factors may alter the individual's perceptions of the end results, either increasing or decreasing their views towards class outcomes and graduation. A number of studies have sought to explain individuals' shifts in motivation towards the attainment of goals. One model that is used to predict behavior and determine motivations is the Theory of Planned Behavior (TPB). Although the Theory of Planned Behavior has only been able to account for approximately one-half of behavioral intentions (Ajzen, 1991), it has successfully been applied and tested in a wide range of studies (Armitage & Conner, 2001). The inconsistencies of resulting from prior studies have prompted calls for additional variables to be included in the model. In particular, researchers have amended the Theory of Planned Behavior by adding the component of past experience. The inclusion of such factors has slightly increased predictive power of the model (Ajzen, 1991; Bamberg, Ajzen, & Schmidt, 2003). The Theory of Planned Behavior and its predecessor, the Theory of Reasoned Action, are both extensions of the Expectancy Value Theory. It is important to understand the groundwork behind these theories.

Expectancy Value Theory

Expectancy Value Theory has been used to understand motivations underlying individuals' behaviors. Focus has been placed on intent, as the immediate precursor to a particular behavior. This theory proposes that if one can determine the elements that impact intention, then one can more accurately predict whether an individual will engage in a particular behavior. Likewise, it proposes that by changing an individual's perceptions of potential outcomes, one can alter the individual's intent. The basis of the theory is that "individuals choose behaviors based on the outcomes they expect and the values they ascribe to those expected outcomes" (Borders, Earleywine, & Huey, 2004). The level of one's willingness to perform a particular behavior is dependent on a) the extent to which the individual believes a consequence will follow and b) the value the individual places on the consequence (Mazis,

Ahtola, & Kippel, 1975). The more attractive a particular outcome is to the individual, the more likely the person will engage in the behavior. Similarly, as the number of positive outcomes increase, the motivation to engage in the behavior will increase. Expectancy itself is defined as “the measurement of the likelihood that positive or negative outcomes will be associated with or follow from a particular act” (Mazis et al, 1975). Thus, the individual’s outcome expectations affect one’s attitudes towards the behavior. In addition to the expected outcome, the value the individual places on the outcome influences the individual’s intentions.

Applying the Expectancy Value Theory (EVT), Geiger et al. (1996) reported various outcomes that impact students’ motivations in college. Many of these outcomes were seen as short-term goals, including the perceptions of successful course completions. Students were more willing to increase their efforts in a course if they valued increasing their grades. For instance, if students recognized that a higher grade would increase their grade point average and they valued this increase, they would be more likely to heighten their effort in courses. Other factors that heightened efforts included increases in self-esteem, academic success, and job opportunities post graduation.

Even though the Expectancy Value Theory has been used to predict the intentions that will impact behavior, there are a number of limitations to the theory. One of the main weaknesses of the theory is the focus on limited cognitive processes. Borders, Earleywine, & Huey (2004) found that individuals choose from a variety of alternatives and thus must examine a variety of expectancies before choosing to engage in behaviors. Among the potential alternatives of decisions that can be made, some appear more attractive than others. For example, it appears individuals are likely to intend behaviors that have been positively reinforced by successful outcomes and by other individuals in social networks (Bandura, 1977).

Theory of Reasoned Action

The Theory of Reasoned Action (Ajzen & Fishbein, 1975) enhances the predictive and explanatory nature of the basic Expectancy Value Theory by including attitude and normative beliefs that can affect intention. Attitude beliefs relate to how the individual views the behavior itself and are weighted by perceived importance. In determining whether to engage in a particular behavior, individuals also weigh a number of factors including the beliefs of their family members, friends, and instructors. These beliefs are weighted by motivations to comply

and create a normative belief index. When an individual rationalizes a particular behavior, they are considering both the attitude beliefs and normative beliefs (see Figure 1).

The important role of normative beliefs has been documented by various researchers independent of the Theory of Reasoned Action. For example research on “significant others” has illustrated that they have a tremendous impact on both educational and occupational (Woelfel, 1972). Haller and Woelfel (1969) developed the Wisconsin Significant Other Battery (WSOB) to measure the effects of significant others on the decision making processes.

The Wisconsin model of status attainment, consistent with social psychological theory, assumes that preferences are formed and modified largely on the basis of information from others . . . (Saltiel, 1988, p.336).

For nearly three decades, the Theory of Reasoned Action (TRA) has proved useful in predicting a wide spectrum of behavioral intention (Ajzen & Madden, 1985). Studies have focused on a number on regular strategy choices to questions of personal or social significance including having an abortion, using condoms, and voting in elections. TRA is particularly useful in situations where the individual maintains complete volitional control over the behavior (Ajzen, 1991). Both the attitude and normative components of this theory have been routinely related to intentions. In recent years, however, several researchers have merged additional indices to increase the predictive power of this theory.

Self Efficacy Theory and Perceived Behavioral Control

Various researchers have argued that individuals can only perform an intended behavior if they maintain volitional control. Normative and attitude beliefs should be particularly important in situations where individuals have complete control. However, complete volitional control is hard to achieve, especially when the actions being performed are in a spontaneous environment. Thus, individuals maintain beliefs on the likelihood that a particular behavior can be “successfully performed” thus introducing the concept of control.

An important component of perceived control focuses on the psychological processes of making the decision. Not only does the individual maintain beliefs toward the behavior and how others view the behavior, but they entertain beliefs about their own personal ability to physically perform the behavior otherwise known as self-efficacy. Bandura (1977) argued that by increasing the individuals’ belief of their own ability to accomplish the task, the likelihood of

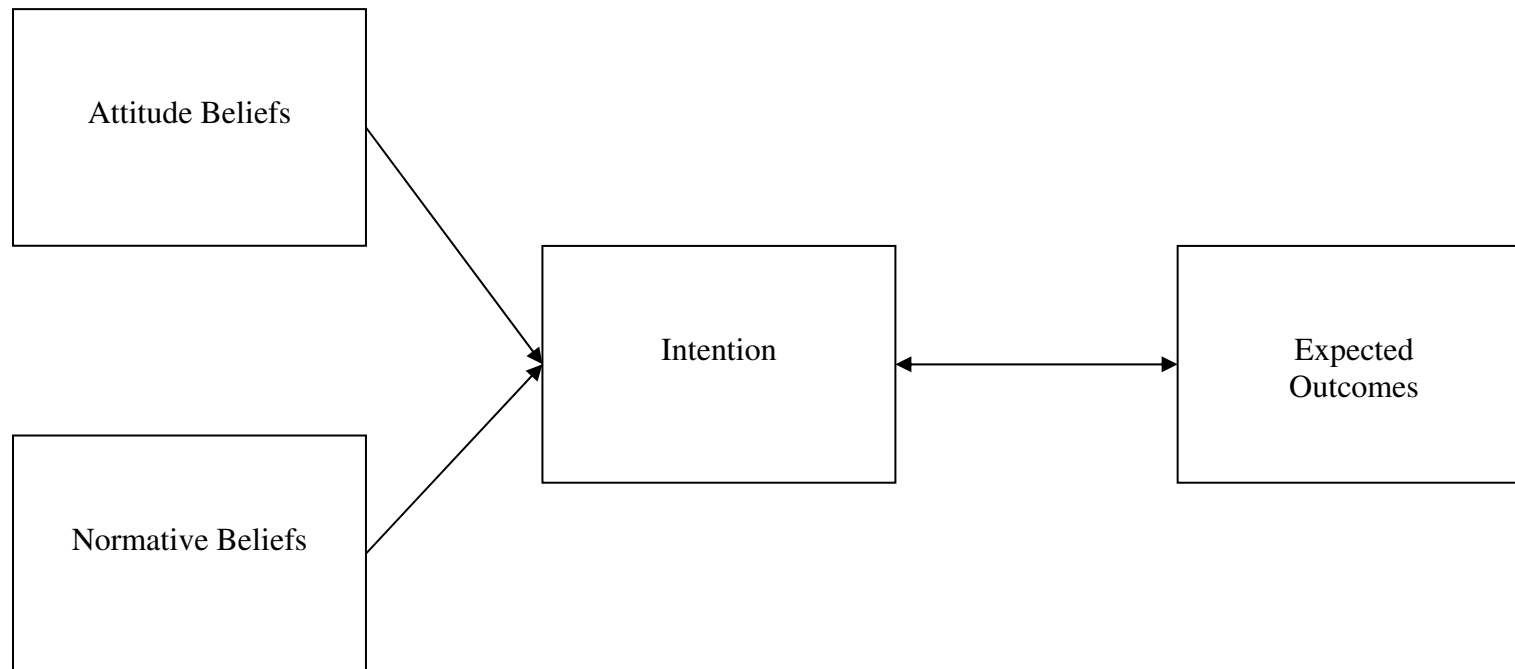


Figure 1. Theory of Reasoned Action (Ajzen & Fishbein, 1975).

them performing the behavior would increase. Terry, Hogg, and White (1999) equate internal control factors such as skill and academic ability to self-efficacy. Manstead and Van Eekelen (1998) found that self-efficacy succeeded in predicting grade achievement since it related more to skill-based behavior.

The Theory of Planned Behavior (TPB) incorporates control beliefs as a predictor variable. In developing the Theory of Planned Behavior, Ajzen (1988, 1991) claimed that behavioral decisions are made by taking into consideration behavioral, normative, and control beliefs (see Figure 2). The beliefs regarding the presence of certain factors that may inhibit the execution of the behavior were termed perceived behavioral control (Ajzen, 2002). Initially, perceived behavioral control was viewed as having a direct impact on the behavior (Ajzen, 1991); however, research has found that perceived behavior also serves as a co-determinant of intention. (Manstead & Van Eekelen, 1998). There has been some speculation in relation to the direct link between perceived behavior control and behavior. The greater the amount of control the person has over the behavior, the more likely intentions will predict actual behavior (Manstead & Van Eekelen, 1998). However, since it is difficult to measure actual control, perceived control serves as a proxy and, along with attitude beliefs and subjective norms, form intentions that will predict behavior (Ajzen, 1985).

The Theory of Planned Behavior takes all of these elements into account to more accurately predict behavior in situations where actual control cannot be measured. A meta-analysis conducted on the Theory of Planned Behavior has found the theory to increase predictability of intention by 13% and predictions of behavior by an additional 12% (Godin & Kok, 1996). The Theory of Planned Behavior has been useful in predicting and explaining behaviors including exercise behavior (Brenes, Strube, & Stordant, 1998) and graduation from high school (Davis, Ajzen & Saunders, 2002).

Despite the utility of the Theory of Planned Behavior, the theory is not without problems. The theory, for example, only accounts for approximately 50% of the variance in intention (Sutton, 1998). Some studies have even found that the Perceived Behavior Control variable has added little or no significant increase in variance for the predictability of intentions. There seems to be an inconsistency among the literature justifying the use of Perceived Behavioral Control in predicting behavior. However, the lack of variance contributed by Perceived Behavior Control

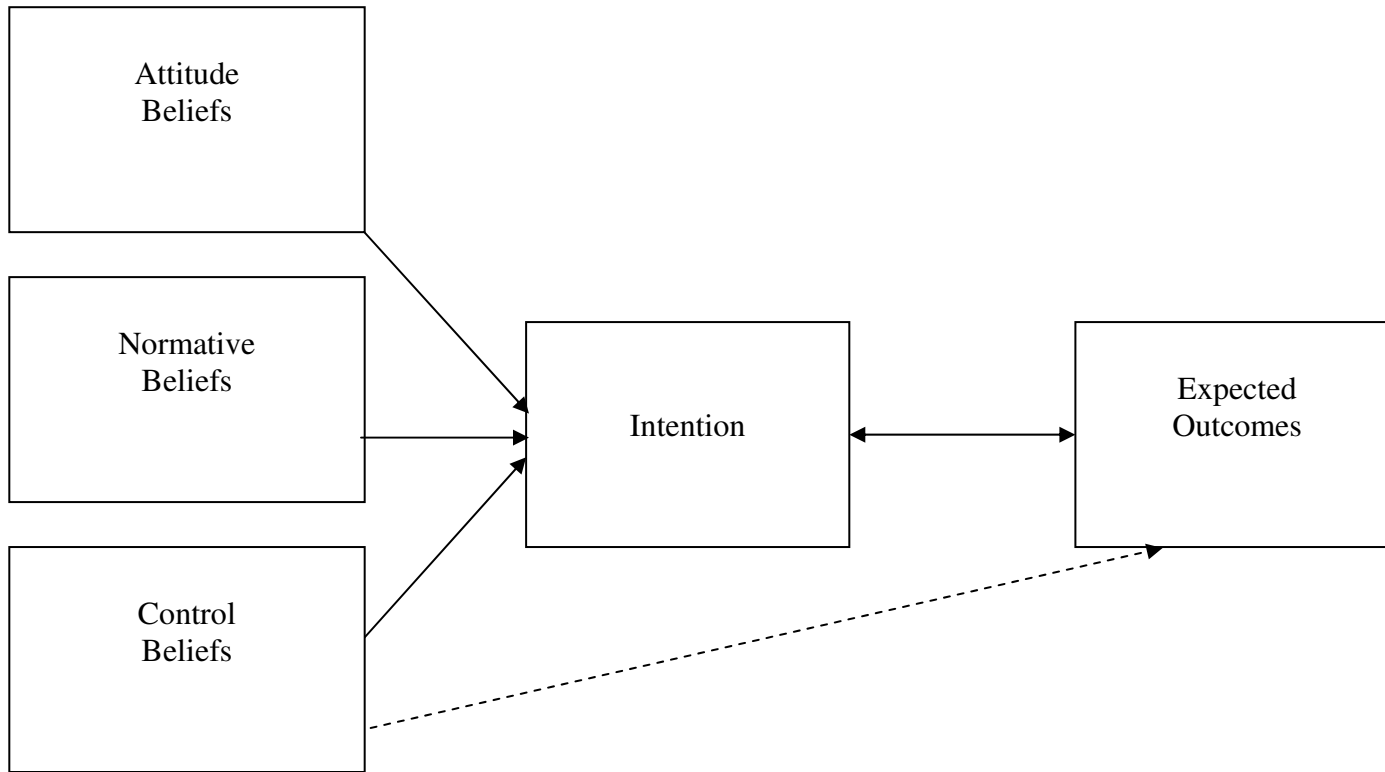


Figure 2. Theory of Planned Behavior (Ajzen, 1991)

in certain studies may be a result of the type of behavior and the level of volitional control. Conner and Armitage (1991) make a distinction between moral and skill behavior. Moral behavior describes such decisions as contraceptive use while skill based behavior more closely relates to academic achievement. Conner and Armitage found that of those studies analyzing moral decision making behavior, the amount of control over the behavior had less of an impact than habit, regret, or attitudes towards the behavior.

Beyond the inconsistencies in prior results, research has justified the inclusion of other variables to increase predictive utility of the TPB model (Sutton, 1998). A number of these facilitating factors include prior experiences and a call for a clear distinction between self-efficacy and perceived behavioral control. While a number of these variables are necessary in order to predict the outcome, they are far from sufficient determinants of behavior (Bagozzi, 1992). In the development of TPB, Ajzen (1991) admits that:

The theory of planned behavior is, in principle, open to the inclusion of additional predictors if it can be shown that they capture a significant proportion of the variance in intention or behavior after the theory's current variables have been taken into account (p. 199)

After reviewing the research on the addition of habit, we can justify its inclusion into the theory and its application in this study.

Normative Communication Support

An additional variable that can be merged with the traditional Theory of Planned behavior model is normative communication support. While normative beliefs play a key role in shaping attitudes and beliefs, normative support encourages the student to adopt the norms. Individuals are more likely to engage in a behavior if the groups they identify with support that behavior (Terry, 1999). In addition, it seems reasonable to argue that the stronger the level of identification that students have with family, friends, professors, and advisors, the more likely the normative beliefs will impact the students' behavioral intentions.

Prior Experiences

Prior experiences also may play a major role in predicting future behavior, especially considering when the ultimate behavior is based on the comprehensive success or failure of similar actions. This is true for complex behaviors in that the subsequent performances of a

given behavior are subject to less cognitive processing compared to the initial enactment of the behavior:

Even complex behaviors that are initially guided by explicit intentions and self regulation can, with sufficient repetition and practice, habituate and become more or less automatic in the sense that they are performed quickly, outside of awareness, with minimal intention, and in parallel with other activities. (Ajzen, 2002, p. 107).

The ease of performing the action habitually occurs because certain cognitive shortcuts are created when the individual engages in the behavior. However, Ajzen makes a distinction between habit and “spontaneous attitudes and intentions.” The key difference is that instead of responding to certain cues in the environment, one performs the action rather quickly and with less thought since they have already developed attitudes towards the behavior. The inclusion of spontaneous attitudes and behavior increases the predictability of TPB in that the individual has a clearer perception of perceived control and perceived control is more likely to correlate to actual control (Conner & Armitage, 1998). Also, past behavior assists in predicting future behavior in that the individual creates “simplified decision rules” (Aarts et. al, 1998) based on rationalizing the behavior the first time around. Thus less mental effort is exerted when processing whether or not to engage in the behavior again. Prior experiences increased the predictability intentions by 7.2%, and when included in the Theory of Planned Behavior, increased the predictability of the model by 13% (Conner & Armitage, 1998).

In this study the model applied to predict the individual’s motivation to graduate from college is comprised of the traditional Theory of Planned Behavior elements as well as prior past performance and the effects of normative support (Figure 3). By analyzing an individual’s current and past behaviors in an academic setting, one can explain much of their overall attitudes towards graduation resulting in understanding the intent to comply with that attitude. The more positive the person’s attitude is towards graduation. The stronger the person’s intention to graduate, the more likely he is to exert the required amount of effort to complete courses and ultimately graduate.

The model in Figure 3 reflects a number of variables that have an impact on personal intention. The three variables that impact intention include attitude beliefs, normative beliefs, and control beliefs (see Figure 3). Each variable is also evaluated by the level of importance the belief is to the individual. For instance, if the individuals significant other strongly believe in

graduating from college, yet the individual making the decision has no desire to meet the wishes of the family members, then the normative beliefs carry less weight. Prior experience may also affect the individual's intention. If the individual has already engaged in a particular behavior, they are less likely to go through the cognitive process and weigh each belief. Rather, they look to prior outcomes and base their motivation on those experiences.

By applying this Elaborated Theory of Planned Behavior to individuals currently enrolled in a four year post secondary institution, this study seeks to unveil the variables that help explain and predict motivations to graduate. Specifically it is proposed that among students who are in introductory college courses:

There is a positive reciprocal relationship between attitude beliefs towards graduation and prior experiences with academic courses.

H₁ The more favorable the prior experiences in completing academic course, the more favorable the attitude beliefs towards graduation.

Intentions to graduate are a positive function of attitude beliefs towards graduation, normative beliefs and normative support concerning graduation, and personal control beliefs over graduation.

H₂ The more favorable the attitude belief towards graduation, and the more favorable the normative beliefs and normative support, and the stronger the personal control beliefs, the greater the intention to graduate.

Expected successful completion of academic courses (Expected Outcome) is a positive function of intentions to graduate and prior experiences with academic courses.

H₃ The greater the intentions to graduate and the more favorable the prior experiences in completing academic course, the more favorable the expected outcomes.

In addition to testing the Elaborated Model of the Theory of Planned behavior, the study also seeks to uncover if there is a gender difference in how attitudes, normative beliefs, and normative supports affect intention.

RQ₁ Comparing females versus males, is there a difference in the predictive utility of the Elaborated Model of the Theory of Planed Behavior?

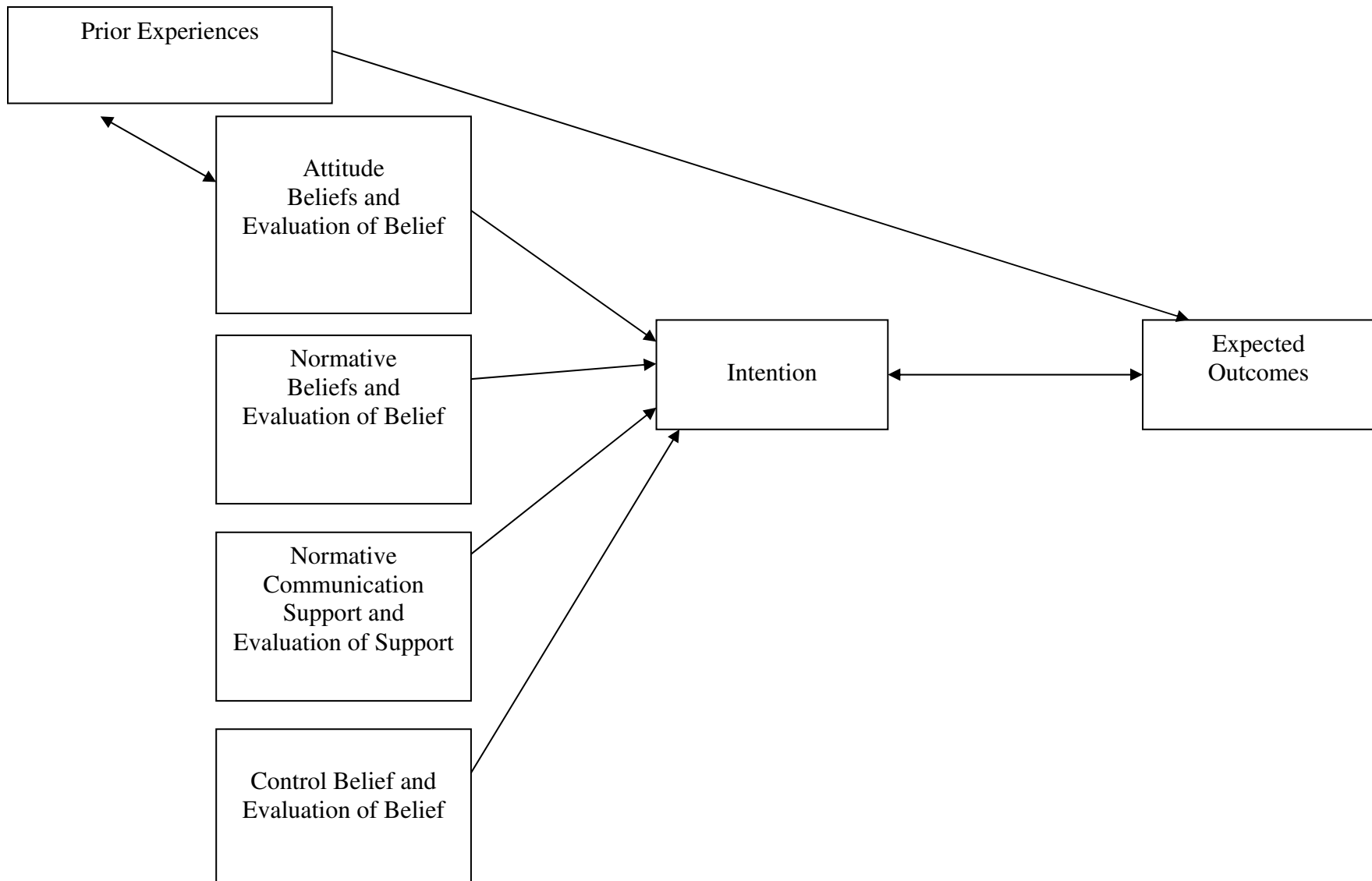


Figure 3. Elaborated Theory of Planned Behavior

CHAPTER III: METHODS AND STATISTICAL ANALYSIS

In order to test the hypotheses in this Elaborated Theory of Planned Behavior, a questionnaire was developed to illicit responses from students regarding their beliefs and the evaluation of those beliefs towards various elements regarding graduation. The questionnaire in Appendix B was administered to 200 Florida State undergraduate students who were enrolled in lower division courses. Students eligible to participate in the survey must have attended an institution of higher learning for at least a semester.

The questionnaire was designed to gather an overall assessment of the student's beliefs by asking a series of questions relating to each of the seven variables (attitude beliefs towards graduation, normative beliefs, normative communication support, control beliefs, intention to graduate, prior experiences, and expected outcomes). Students were asked to rate each belief on a seven point Likert type scale, the extent to which the belief applied to them. Students were then asked to rank the level of importance of each belief using the same scale. The questions were then grouped according to the variable being evaluated and indices were created to evaluate the overall effectiveness of the model. Each question was then multiplied by the level of importance of that belief creating a new value for the variable. Then, each combined value was grouped according to the variable measured and indices were developed.

In creating the measure for prior experiences, respondents were asked questions relating to past experiences they have had at the university. These questions focused on why students withdraw from classes. Reasons for withdrawing from classes included avoiding a failing grade, not getting along with the professor, and not understanding the material.

The attitude beliefs index was created to assess student's overall attitude towards attaining a college degree. The goal of this index was to identify how the respondents viewed the utility of graduating. Four statements were used to create this index. Evaluated statements used to compute this index include "a college degree will help me professionally" and "a college degree will give me more opportunities."

The normative belief index was created by using questions regarding those members in the student's social network. Students were asked to evaluate the expectations of friends, faculty,

and advisors. These evaluated items include beliefs towards graduation, completing courses, and succeeding in classes.

In developing the measure for normative communication support, students were asked to assess the assistance they received from professors and advisors. Respondents were asked to evaluate whether the professors and advisors were available to help students. In addition questions focused on whether the professors and advisors discussed course options with the student and provided appropriate assistance.

In assessing control beliefs, respondents were asked to evaluate statements regarding their own academic skills. Statements included “I can pass all of my classes,” “I have control over what needs to be done to become successful,” and “I can make the right choices regarding classes.” These questions assessed the students’ own personal belief in their ability to succeed.

Student’s intention to graduate was determined by evaluating statements relating to students’ intention to complete classes and graduate. Five survey items were used to create this measure. Sample questions used to compute the indices include “I will pass all of my classes this semester” and “I will be successful.”

In order to compute the expected outcomes index, two questions were used. Respondents were asked what percentage of their classes they sought to complete with an “A” grade and to what extent an “A” grade was important. For this measure, two different types of scales were used. The importance of an “A” grade was evaluated using a Likert type scale. However, students were only asked to report the percentage of courses in their degree program that they expected to complete with an “A” grade. Additional questions were asked to build a profile of the survey sample.

CHAPTER IV: RESULTS

Table 1 illustrates the overall demographical characteristics of the survey sample. A majority of the sample were female (56.6%) and slightly over three-fourths (77%) were white. Contrary to original sample expectations, a high percentage of the respondents were Seniors (56.5%) and 32% were juniors. Most of the students had grade point averages greater than 3.0 with the mean G.P.A. at 3.09. The average age of the survey respondents was 21, and 6.5% of the respondents were 25 or older.

Once the indices were developed a number of statistical procedures were conducted in order to determine the dimensionality and overall reliability of the indices. The tables in Appendix A indicate the correlation matrices and principle component analyses of the sample items used to create the predictor and predicted indices. The seven indices are all uni-dimensional and have shared variances ranging from 45.2% to 60.9%. The multiplicative paired (belief * evaluation) items in the initial six indices were standardized and weighted using factor score coefficients. Each index was then summed to create the final measures. The seventh index, expected outcomes, was computed by multiplying the single belief by the evaluation measure (percentage of classes in the program the student expects to get an A grade in multiplied by the importance of getting an A). Table 2 demonstrates the Cronbach Alpha (internal consistency) coefficients for the items used to compute the theoretical indices. Four of the internal consistency measures were above the minimum desired alpha level of .80 (Nunley, 1967). However, three items, Prior University Experience (.697), Intention to Graduate (.698), and Expected outcomes (.612) had reliability indices below the desired level.

In addition to the reliability measures, a correlation matrix was computed for the model indices. Table 3 illustrates the Correlation Matrix for the seven indices in the theoretical model. The correlation values ranged from .078 to .466. Two sets of variables had notably higher correlations. Normative Communication Support and Normative beliefs were highly correlated (.632). In addition Intention to Graduate and Belief Level of Control over Graduation also exhibited a high level of correlation (.712). Due to these high levels of multicollinearity, problems were anticipated.

Table 1 – Profiles of Undergraduate Survey Respondents (Total Sample)

		Total Sample n=200		
Sex	Male	43.5%		
	Female	56.5%		
Ethnicity/Race	White (Non Hispanic)	77.0%		
	Black (Non Hispanic)	7.5%		
	Hispanic	5.5%		
	Pacific Islander	3.0%		
	Native American	1.0%		
	Other	5.5%		
	Missing	.5%		
Academic Classification	Freshman	2.0%		
	Sophomore	9.0%		
	Junior	32.0%		
	Senior	56.5%		
	Missing	.5%		
Age	18	1.5%		
	19	6.0%		
	20	16.0%		
	21	22.5%		
	22	26%		
	23	14.0%		
	24	5.0%		
	25 + (aggregated)	6.5%		
	Missing	2.5%		
				Mean Age*
			Standard Deviation	13.13
Grade Point Average (aggregated categories)	Below 2.0	1.5%		
	2.0 to 2.5	10.0%		
	2.5 to 2.99	22.5%		
	3.0 to 3.49	30.5%		
	3.5 to 3.99	30.0%		
	4.0	4.5%		
	Missing	1%		
			Mean G.P.A.*	3.09
			Standard Deviation	0.57

* Means computed prior to aggregating values.

Table 2 – Cronbach Alpha (Internal Consistency) Coefficients for Seven Measures in the Theoretical Model

Indices	<u>Alphas</u>
Prior University Experience	.697
Attitudes Towards Graduation	.828
Normative Beliefs	.929
Normative Communication Support	.846
Control Beliefs	.821
Intention to Graduate	.698
Expected Outcomes	.612

Table 3 – Correlation Matrix for Seven Indices in the Theoretical Model

	1	2	3	4	5	6	7
1) Prior University Experience	1.000						
2) Attitudes Towards Graduation	.175 *	1.000					
3) Normative Beliefs	.118	.354 ***	1.000				
4) Normative Communication Support	.249 ***	.469 ***	.632 ***	1.000			
5) Belief Level of Control Over Graduation	.231 ***	.460 ***	.377 ***	.421 ***	1.000		
6) Intention to Graduate	.258 ***	.357 ***	.291 ***	.319 ***	.712 ***	1.000	
7) Expected Outcome	.150 *	.102	.125	.091	.108	.169 *	1.000

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

In order to test the relationship between the attitudes towards graduation and prior university experiences, **H₁** proposed that the more favorable the prior experiences in completing academic courses, the more favorable the attitude beliefs toward graduation. Conducting simple regression analysis, the results, as summarized in Table 4, indicate that there is a standardized beta coefficient of .175 ($t=2.429$; $p \leq .001$) between prior university experience and attitude beliefs towards graduation. The $R^2 = .025$ ($F = 5.900$). The 95% confidence level for the beta coefficient is .033 to .317. These results support the first research hypothesis.

The second research hypothesis (**H₂**) proposed that the more favorable the attitude beliefs towards graduation, and the more favorable the normative beliefs and normative support, and the stronger the personal control beliefs, the greater the intention to graduate. In order to test this hypothesis, a multiple regression analysis was computed using the four predictor variables. The resulting multiple correlation was $R=.713$ with an adjusted $R^2=.497$ ($F = 45.718$). The results in Table 5 indicate that when the variables are controlled, the only significant predictor of intention to graduate is control beliefs over graduation ($Beta=.709$; $t = 11.378$; $p \leq .001$). The confidence intervals for the beliefs predicting intention to graduate is .562 to .797. The remaining confidence intervals are not significant. Thus, the research results only offer partial support for the second hypothesis.

In order to test and initially control for the possible effects of multicollinearity among the predictor variables, a second stepwise regression analysis was conducted entering control belief and the remaining predictor variables individually. Once again, none of the remaining predictor variables was statistically significant. Further analysis of these findings will be reported in the discussion section.

The third hypothesis (**H₃**) proposed that the greater the intention to graduate and the more favorable the prior experiences in completing academic courses, the more favorable the expected outcomes. Table 6 contains a multiple regression using intention to graduate and prior university experience to predict expected outcomes. In this analysis, the multiple correlation is $R=.221$ with an adjusted $R^2=.039$ ($F=4.808$; $p \leq .009$). When controlling for prior university experiences, the standard beta coefficient is .135 ($t = 1.827$; $p \leq .034$) using intention to graduate to predict expected outcomes. When controlling for intention to graduate, the standardized beta coefficient for prior university experience is .144 ($t = 1.958$, $p \leq 1.958$); therefore, **H₃** is supported.

Table 4 - Simple Regression Using Prior University Experiences to Predict Attitude Beliefs Towards Graduation (Total Sample)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.175(a)	.031	.025	.98948

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.776	1	5.776	5.900	.016(a)
	Residual	183.087	187	.979		
	Total	188.863	188			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
	Prior University Experience	.175	.072	.175	2.429	.001	.033	.317	1.000	1.000

Table 5 - Multiple Regression Using Attitude Beliefs Towards Graduation, Normative Communication Support from the University, Normative Beliefs Towards Graduation of University Entities, and Control Beliefs to Predict Intentions to Graduate (Total Sample)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713(a)	.508	.497	.68875224

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.751	4	21.688	45.718	.000(a)
	Residual	83.965	177	.474		
	Total	170.716	181			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig. One-tail test	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	Attitudes Towards Graduation	.010	.062	.010	.164	.435	-.111	.132	.699	1.431
	Normative Beliefs	-.001	.067	-.001	-.018	.493	-.134	.131	.586	1.708
	Normative Communication Support	-.002	.071	-.002	-.024	.491	-.142	.139	.523	1.911
	Belief Level of Control Over Graduation	.679	.060	.709	11.378	.000	.562	.797	.715	1.398

a Dependent Variable: Intention to Graduate

The final research question posed the question that when comparing females versus males, is there a difference in the predictive utility of the Elaborated Theory of Planned Behavior? When comparing the regression results of both females and males, there were no significant differences between the males and females for the first two hypotheses. However, Tables 7a and 7b indicate that for the final hypothesis, there is a difference between males and females. The tables illustrate that for females, intention and prior university experience were not significant predictors of expected outcomes ($R = .124$; adjusted $R^2 = .004$; $F = .809$; $p \leq .448$). However, among males, the model intention to graduate did serve as a significant predictor of expected outcomes ($R = .335$; adjusted $R^2 = .090$; $F = 5.060$; $p \leq .009$). Specifically, when controlling for prior university experience, intention to graduate had a standardized beta coefficient of $.258$ ($t=2.38$, $p \leq .01$). When controlling for intention, prior university experience had a standardized beta coefficient of $.162$ ($t=1.498$, $p \leq .069$).

In order to further analyze gender's effect on the theoretical model, a hierarchical regression analysis was conducted by adding gender to the model (Table 8). This analysis results in a R^2 change of $.048$ ($F= 9.972$; $p \leq .002$) which indicates that knowing the sex of the undergraduate student significantly adds to the predictive utility of the final analysis.

Table 6 - Multiple Regression Using Intention to Graduate and Prior University Experience to Predict Expected Outcomes (Total Sample)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.221(a)	.049	.039	198.83633

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	380176.731	2	190088.366	4.808	.009(a)
	Residual	7393210.637	187	39535.886		
	Total	7773387.368	189			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
	Intention to Graduate	27.191	14.884	.135	1.827	.034	-2.172	56.554	.935	1.069
	Prior University Experience	29.205	14.919	.144	1.958	.026	-.226	58.635	.935	1.069

a. Dependent Variable: Expected Outcomes

Table 7a - Multiple Regression Using Intention to Graduate and Prior University Experience to Predict Expected Outcomes (Female Sub-Sample)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.124(a)	.015	-.004	181.32689

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53181.095	2	26590.548	.809	.448(a)
	Residual	3419461.895	104	32879.441		
	Total	3472642.991	106			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig. One-tail test	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF	Lower Bound	Upper Bound
	Intention to Graduate	15.040	17.198	.089	.875	.192	.916	1.092	-19.064	49.144
	Prior University Experience	12.395	19.673	.064	.630	.265	.916	1.092	-26.617	51.406

a. Dependent Variable: Expected Outcome

Table 7b - Multiple Regression Using Intention to Graduate and Prior University Experience to Predict Expected Outcomes (Male Sub-Sample)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.335(a)	.112	.090	208.02067

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	437881.356	2	218940.678	5.060	.009(a)
	Residual	3461807.801	80	43272.598		
	Total	3899689.157	82			

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig. One-tail test	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF	Lower Bound	Upper Bound
1	Intention to Graduate	61.312	25.757	.258	2.380	.010	.946	1.057	10.053	112.571
	Prior University Experience	32.900	21.968	.162	1.498	.069	.946	1.057	-10.818	76.619

a Dependent Variable: Expected Outcome

Table 8 – Hierarchal Regression Using (1) Intention to Graduate, Prior Experience and (2) Gender to Predict Expected Outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.221(a)	.049	.039	198.83633	.049	4.808	2	187	.009
2	.312(b)	.097	.083	194.23127	.048	9.972	1	186	.002

a Predictors: (Constant), Intention to Graduate and Prior University Experience

b Predictors: (Constant), Intention to Graduate, Prior University Experience, and Gender

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			One-tail test	Lower Bound	Upper Bound	Tolerance
1	Prior University Experience	29.205	14.919	.144	1.958	.052	-.226	58.635	.935	1.069
	Intention to Graduate	27.191	14.884	.135	1.827	.069	-2.172	56.554	.935	1.069
2	Prior University Experience	23.179	14.698	.115	1.577	.116	-5.817	52.175	.919	1.088
	Intention to Graduate	31.024	14.590	.154	2.126	.035	2.241	59.808	.929	1.077
	Gender	90.600	28.690	.222	3.158	.002	34.000	147.199	.981	1.020

a Dependent Variable: Expected Outcome

CHAPTER V: SUMMARY AND DISCUSSION

The purpose of this study was to explore the various factors that can affect a student's overall desire to graduate from college. Chapter I introduced and reviewed the problem of students dropping out of college. This chapter identified studies that have sought to explain factors that help retain students in college. It also detailed situations and factors that keep students from completing courses and degree programs.

In order to understand the range of elements involved in the decision making processes affecting college graduation, an Elaborated Theory of Planned Behavior was developed. Chapter II initially reviewed the development of the Theory of Planned Behavior and its predecessors --- Expectancy Value Theory and the Theory of Reasoned Action. This chapter also discussed prior studies that sought to increase the predictive utility of the Theory of Planned Behavior by accounting for prior past experiences. In addition, arguments were presented for including the variable of normative communication support to help account for the effects of verbal encouragement and assistance by social network members. Hence, an elaborated model was proposed for analysis.

This elaborated model examined students' prior (university class) experiences, their overall attitude beliefs toward graduation, the normative beliefs of members in the students' social network, the normative communication support from those in their social networks, the control beliefs students had concerning the completion of the academic courses and graduation, the individuals' intentions to graduate, and finally their expected outcomes. Three hypotheses and a research question were presented to test key elements of the model.

Chapter III introduced the design of the study and planned statistical analyses. In order to test the Elaborated Theory of Planned Behavior, a variety of steps were proposed. The initial step included combining the intensity of the beliefs and the evaluations of the beliefs to create weighted indices. This step involved tests for dimensionality and internal consistency. Finally each hypothesis and the research questions were tested using either simple, multiple, or hierarchal regression to determine the utility of the six predictor variables.

Hypothesis 1. The first hypothesis proposed a relationship between prior university experiences in completing academic courses and intention to graduate. The hypothesis claimed that the more favorable the prior experiences in completing academic courses the more favorable the intention to graduate. A simple regression analysis revealed that there was a statistically significant, positive relationship present between the two variables. Thus, as students complete university academic courses, their intentions to graduate appear to become stronger. The finding parallels prior research by Davis et. al indicating that as students get closer to graduation, their intentions to graduate grow stronger. Therefore, it would be expected that Juniors and Seniors, compared to Freshmen and Sophomores, are more likely to have stronger graduation intentions. This may also have implications for interventions that increase the numbers of positive classroom experiences. It would seem reasonable, that the numbers of positive classroom experiences and the numbers of completed courses would increase students' graduation intentions. This, however, requires future study.

Hypothesis 2. The second hypothesis proposed that the more favorable the attitude toward graduation, the more favorable the normative beliefs and normative communication support, and the stronger the personal control beliefs, the greater the intention to graduate. This hypothesis was tested using multiple regression analysis. The analysis revealed only partial support for the hypothesis. The single statistically significant predictor was control beliefs. The test revealed that the greater the control beliefs, the greater the intention to graduate. These results may have partially be affected by the nature of the sample. Since a surprisingly large number of the sample was comprised of seniors and juniors, the control beliefs over graduation may have been stronger since they are closer to the overall goal.

Another factor that may account for the H_2 results is that the three remaining variables (attitude towards graduation, normative beliefs, and normative communication support) appear to serve as antecedent predictors of control beliefs. This link will be further elaborated later in the limitations section. Also, the initial correlation matrix runs indicated that a number of the indices did correlate among themselves. The collinearity of the normative belief and normative communication support indices also may have further reduced their statistical significance in this model.

Hypothesis 3. The final hypothesis proposed positive relationships between both intention to graduate, prior university experiences and expected class outcomes. Multiple regression

analysis supported this hypothesis. There is an additive relationship where prior class experiences and graduation intentions combine to predict students' expectations for class performance. Both the intention to graduate and positive prior university experiences serve as significant predictors of the expected class outcomes.

Research Question 1. The results from Hypothesis 3 were further tested to determine the effect of gender on the model. The conditional regression analyses indicated no appreciable differences between males and females for the first two hypotheses. However, there was a significant difference between genders for the third hypothesis. The analysis suggests that the final hypothesis in the Elaborated Theory of Planned Behavior serves as a better predictor of intentions to graduate for males than it does for females.

Limitations and Issues for Future Research

While each of the study indices proved unidimensional, the internal consistency reliability measures for prior university experience, intentions to graduate and expected were below .80. Low reliability attenuates the results from correlation and regression analyses. Future researchers should increase the numbers of items in the indices, and / or use items with higher inter-correlations in order to increase internal consistency reliability.

Much along the same line, two indices were highly correlated. Normative Beliefs and Normative Communication Support had a correlation value of .630. This correlation and the collinearity statistics indicate that future researchers should either combine the two indices, or more ideally expand items in the indices to reduce their collinearity. Given the potential substantive importance of Normative Communication Support, the latter strategy is recommended.

As mentioned earlier, these study results may have been influenced by the nature of the sample. This study sample had a high percentage of Seniors and Juniors, even though the sample was drawn from lower division classes. In future studies, efforts should be made to increase the numbers of Freshmen and Sophomores by either using different sampling methods or increasing sample sizes.

The model study can be tested best by using more advanced statistically procedures. Elaboration analyses (Rosenberg, 1968) indicated that, counter to hypotheses, attitude beliefs do not serve as an intervening variable between prior experience and intention to graduate.

Rather, there appears to be a direct and an indirect relationship between prior experiences and intention to graduate. In contrast, elaboration analyses revealed direct relationships between attitude beliefs, normative beliefs, normative communication supports, control beliefs and expected outcomes. Ideally, structural equation modeling (SEM) should be used to test the overall model by examining the latent constructs, rather than the manifest indices, and by simultaneously testing all hypothesized relationships (direct and indirect). SEM, however, is beyond the scope of this study and the statistical preparation of this researcher. This overall model, however, should be tested in its entirety by future researchers.

Finally, the Control belief variable in this study was correlated .715 with Intention to Graduate. The other three predictor variables had notably weaker relationships with intention ($< .34$). In addition the Attitude Belief, Normative Belief and Normative Communication predicted Control Beliefs ($R = .534$, adjusted $R^2 = .273$, $F = 23.621$, $p \leq .0001$). Future researchers should consider whether Control Beliefs is an intervening variable between the other three predictors and Intention to Graduate.

Practical Implications of the Study and Conclusions

Even though the hypothesized relationships in the Elaborated Theory of Planned Behavior were not consistently supported, several relationships did prove to be significant. Perhaps the most important relationship features the predictive association between control beliefs and intentions to graduate. Previous studies have suggested that control beliefs account for relatively little variance when predicting intentions. However, in this study, prior (positive, successful) class experiences and control beliefs were two significant predictor variables. This would suggest that communication interventions to increase graduation rates should consider what can be done to increase positive classroom experiences as well as increase students control beliefs (self-efficacy) concerning graduation. This may include helping students to become aware of their own skills and abilities to complete academic courses, while also building on their academic capabilities.

APPENDIX A

**CORRELATION MATRICES AND PRINCIPAL COMPONENT ANALYSES
FOR PREDICTOR AND PREDICTED VARIABLES**

Table 9 – Correlation Matrix for Sample Items Measuring University Undergraduates Prior University Experiences – Total Sample

n=200	1	2	3	4
1) Withdrawn from classes to avoid a failing grade	1.000			
2) Withdrawn from classes because did not get along with professor	.324	1.000		
3) Withdrawn from classes because did not understand the material	.525	.424	1.000	
4) Withdrawn from classes because did not need them to graduate	.384	.200	.336	1.000

Table 10 – Principal Component Analysis of Sample Items Measuring University Undergraduates Prior University Experiences – Total Sample

n=200

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.114	52.862	52.862	2.114	52.862	52.862
2	.816	20.407	73.269			
3	.614	15.346	88.615			
4	.455	11.385	100.000			

Extraction Method: Principal Component Analysis.

Table 11 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduates Prior University Experiences – Total Sample

	Loading ¹		Scores
3) Withdrawn from classes because did not understand the material	.813	1) Withdrawn from classes to avoid a failing grade	.374
1) Withdrawn from classes to avoid a failing grade	.791	2) Withdrawn from classes because did not get along with professor	.309
2) Withdrawn from classes because did not get along with professor	.653	3) Withdrawn from classes because did not understand the material	.384
4) Withdrawn from classes because did not need them to graduate	.634	4) Withdrawn from classes because did not need them to graduate	.300

¹: Listed in order of highest to lowest loading

Table 12 – Correlation Matrix for Sample Items Measuring University Undergraduates Attitudes Toward Graduation – Total Sample

n=200	1	2	3	4
1) College degree will help me professionally	1.000			
2) College degree will help me achieve my life-time goals	.578	1.000		
3) College degree will make me a happier person	.283	.458	1.000	
4) College degree will give me more opportunities	.446	.311	.240	1.000

Table 13 – Principal Component Analysis of Sample Items Measuring University Undergraduates Attitudes Toward Graduation – Total Sample

n=200

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.177	54.426	54.426	2.177	54.426	54.426
2	.821	20.529	74.955			
3	.641	16.024	90.979			
4	.361	9.021	100.000			

Extraction Method: Principal Component Analysis.

Table 14 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduates Attitudes Toward Graduation – Total Sample

	Loading ¹		Scores
2) College degree will help me achieve my life-time goals	.822	1) College degree will help me professionally	.371
1) College degree will help me professionally	.808	2) College degree will help me achieve my life-time goals	.378
4) College degree will give me more opportunities	.655	3) College degree will make me a happier person	.298
3) College degree will make me a happier person	.648	4) College degree will give me more opportunities	.301

¹. Listed in order of highest to lowest loading

Table 15 – Correlation Matrix for Sample Items Measuring University Undergraduates Assessment of Normative Beliefs– Total Sample

n=200	1	2	3	4	5	6	7	8	9
1) Friends expect me to complete the classes taken	1.000								
2) Professors expect me to complete the classes taken	.527	1.000							
3) Advisors expect me to complete the classes taken	.436	.620	1.000						
4) Friends expect me to succeed in classes	.637	.530	.493	1.000					
5) Professors expect me to succeed in classes	.493	.702	.612	.574	1.000				
6) Advisors expect me to succeed in classes	.486	.642	.817	.542	.664	1.000			
7) Friends expect me to graduate from college	.492	.380	.345	.559	.417	.418	1.000		
8) Professors expect me to graduate from college	.555	.660	.556	.569	.747	.618	.522	1.000	
9) My advisors expect me to graduate from college	.403	.548	.685	.420	.567	.739	.396	.640	1.000

Table 16 – Principal Component Analysis of Sample Items Measuring University Undergraduates Assessment of Normative Beliefs – Total Sample

n=200

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.484	60.932	60.932	5.484	60.932	60.932
2	1.000	11.110	72.043			
3	.599	6.661	78.704			
4	.529	5.874	84.577			
5	.400	4.440	89.017			
6	.345	3.833	92.850			
7	.272	3.020	95.870			
8	.204	2.268	98.138			
9	.168	1.862	100.000			

Extraction Method: Principal Component Analysis.

Table 17 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduates Assessment of Beliefs – Total Sample

	Loading ¹		Scores
6) Advisors expect me to succeed in classes	.855	1) Friends expect me to complete the classes taken	.129
8) Professors expect me to graduate from college	.841	2) Professors expect me to complete the classes taken	.147
5) Professors expect me to succeed in classes	.833	3) Advisors expect me to complete the classes taken	.146
2) Professors expect me to complete the classes taken	.807	4) Friends expect me to succeed in classes	.137
3) Advisors expect me to complete the classes taken	.803	5) Professors expect me to succeed in classes	.152
9) My advisors expect me to graduate from college	.776	6) Advisors expect me to succeed in classes	.156
4) Friends expect me to succeed in classes	.751	7) Friends expect me to graduate from college	.114
1) Friends expect me to complete the classes taken	.706	8) Professors expect me to graduate from college	.153
7) Friends expect me to graduate from college	.625	9) My advisors expect me to graduate from college	.142

¹ Listed in order of highest to lowest loading

Table 18 – Correlation Matrix for Sample Items Measuring University Undergraduate Control Beliefs – Total Sample

n=200	1	2	3	4	5
1) Can pass all of my classes	1.000				
2) Can make the right choices regarding classes	.398	1.000			
3) Can graduate from college	.449	.230	1.000		
4) Has control over what needs to be done to become successful	.307	.395	.269	1.000	
5) When works hard, is successful	.346	.326	.365	.554	1.000

Table 19 – Principal Component Analysis of Sample Items Measuring University Undergraduate Control Beliefs – Total Sample

n=200

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.462	49.238	49.238	2.462	49.238	49.238
2	.868	17.367	66.606			
3	.752	15.032	81.638			
4	.493	9.855	91.493			
5	.425	8.507	100.000			

Extraction Method: Principal Component Analysis.

Table 20 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduate Control Beliefs -Total Sample

	Loading ¹		Scores
5) When works hard, is successful	.754	1) Can pass all of my classes	.288
4) Has control over what needs to be done to become successful	.732	2) Can make the right choices regarding classes	.268
1) Can pass all of my classes	.710	3) Can graduate from college	.262
2) Can make the right choices regarding classes	.661	4) Has control over what needs to be done to become successful	.297
3) Can graduate from college	.645	5) When works hard, is successful	.306

¹. Listed in order of highest to lowest loading

Table 21 – Correlation Matrix for Sample Items Measuring University Undergraduates Perception of Normative Support From University Entities – Total Sample

n=200	1	2	3	4	5
1) Professors provide suggestions to help me succeed in classes	1.000				
2) Advisors provide suggestions to help me succeed in classes.	.439	1.000			
3) Can find help with school work when needed	.482	.368	1.000		
4) Professors are at the University to help students	.511	.385	.553	1.000	
5) Advisors are at the University to help students	.382	.484	.481	.582	1.000

Table 22 – Principal Component Analysis of Sample Items Measuring University Undergraduate Perception of Normative Support From University Entities – Total Sample

n=200

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.873	57.451	57.451	2.873	57.451	57.451
2	.679	13.589	71.039			
3	.625	12.507	83.546			
4	.469	9.371	92.917			
5	.354	7.083	100.000			

Extraction Method: Principal Component Analysis.

Table 23 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduate Belief of Control Over Graduation – Total Sample

	Loading ¹		Scores
4) Professors are at the University to help students	.812	1) Professors provide suggestions to help me succeed in classes	.257
5) Advisors are at the University to help students	.778	2) Advisors provide suggestions to help me succeed in classes.	.241
3) Can find help with school work when needed	.765	3) Can find help with school work when needed	.266
1) Professors provide suggestions to help me succeed in classes	.739	4) Professors are at the University to help students	.283
2) Advisors provide suggestions to help me succeed in classes.	.691	5) Advisors are at the University to help students	.271

¹ Listed in order of highest to lowest loading

Table 24 – Correlation Matrix for Sample Items Measuring University Undergraduate Intention to Graduate from College – Total Sample

n=200	1	2	3	4
1) Will pass all of my classes this semester	1.000			
2) Will graduate from college	.389	1.000		
3) Will be successful	.247	.135	1.000	
4) Will work hard in classes	.332	.246	.244	1.000

Table 25 – Principal Component Analysis of Sample Items Measuring Undergraduate Intention to Graduate from College – Total Sample

n=200

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.811	45.268	45.268	1.811	45.268	45.268
2	.887	22.167	67.435			
3	.718	17.952	85.386			
4	.585	14.614	100.000			

Extraction Method: Principal Component Analysis.

Table 26 – Principal Component Loadings and Scores for Sample Items Measuring University Undergraduate Intention to Graduate – Total Sample

	Loading ¹		Score
1) Will pass all of my classes this semester	.769	1) Will pass all of my classes this semester	.425
4) Will work hard in classes	.684	2) Will graduate from college	.369
2) Will graduate from college	.669	3) Will be successful	.304
3) Will be successful	.551	4) Will work hard in classes	.378

¹ Listed in order of highest to lowest loading

APPENDIX B

SURVEY QUESTIONNAIRE



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The following is a series of questions regarding your attitudes, beliefs, and behaviors towards school. Please bubble the number that most accurately reflects your view. Some questions contain two portions (one asks *how you feel* about a topic and the other asks you to *evaluate your feelings*.) Please make sure to answer both sections.

1) I will pass all of my classes this semester.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
2) I will graduate from college.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
3) I will withdrawal from one or more courses this semester.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Unimportant ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Important ○ 6 ○ 7
4) I will be successful.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
5) I will work hard in my classes.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Unimportant ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Important ○ 6 ○ 7
6) I can pass all of my classes.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
7) I can make the right choices regarding classes.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
8) I can graduate from college.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
9) I have control over what I need to do to be successful	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Unimportant ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Important ○ 6 ○ 7
10) When I work hard, I am successful.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Unimportant ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Important ○ 6 ○ 7
11) My family talks with me and gives me suggestions to help me succeed in my classes.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Unimportant ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Important ○ 6 ○ 7
12) My friends talk with me and give me suggestions to help me succeed in my classes.	Likely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unlikely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7
13) My professors talk with me and give me suggestions to help me succeed in my classes.	Unlikely ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Likely ○ 6 ○ 7	Important ○ 1 ○ 2 ○ 3 ○ 4 ○ 5	Unimportant ○ 6 ○ 7

- 28) My professors expect me to graduate from college. Disagree Agree Unimportant Important
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 29) My advisors expect me to graduate from college. Agree Disagree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 30) My professors are helpful in guiding me through which classes to take. Disagree Agree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 31) My advisors are helpful in guiding me through which classes to take. Agree Disagree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 32) A college degree will help me professionally. Disagree Agree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 33) A college degree will help me achieve my life-time goals. Agree Disagree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 34) A college degree will make me a happier person. Agree Disagree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7
- 35) A college degree will give me more opportunities. Disagree Agree Important Unimportant
 1 2 3 4 5 6 7 1 2 3 4 5 6 7

36) I have withdrawn from classes because of financial problems.

Frequently Never
 1 2 3 4 5 6 7

37) I have withdrawn from classes because of illness.

Never Frequently
 1 2 3 4 5 6 7

38) I have withdrawn from classes because of family problems.

Frequently Never
 1 2 3 4 5 6 7

39) I have withdrawn from classes to avoid a failing grade.

Frequently
 1 2 3 4 5 6 7
Never

40) I have withdrawn from classes because I do not get along with the professor.

Never
 1 2 3 4 5 6 7
Frequently

41) I have withdrawn from classes because I don't understand the material.

Never
 1 2 3 4 5 6 7
Frequently

42) I have withdrawn from classes because I did not need them to graduate.

Frequently
 1 2 3 4 5 6 7
Never

43) On average I spend _____ hours studying each week.

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- more than 7

44) On average I spend _____ hours reading materials beyond what is assigned for homework.

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- more than 7



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48) Which of the following will best describe your ethnicity/race?

- White (not Hispanic)
- Black (not Hispanic)
- Hispanic
- Pacific Islander
- Native American
- Other

49) Which of the following will best describe your year in school?

- Freshman
- Sophomore
- Junior
- Senior

50) Which of the following will best describe your current G.P.A.

- 4.0 2.25
- 3.75 2.0
- 3.5 1.75
- 3.25 1.5
- 3.0 1.25
- 2.75 1.0
- 2.50 less than 1.0

51) What is your major?

52) Gender?

- Male Female

53) In what year were you born? (Please, write the year in the boxes below.)

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REFERENCES

- Aarts, H., Verplanken, B., & Van Knippenberg, A. (1998). Predicting behavior from actions in the past: Repeated decision making or a matter of habit. *Journal of Applied Social Psychology, 28*, pp. 1355-1374.
- Archibald, G. (2004, September 14). Achievement gap' hurting the U.S. educational standing. *The Washington Times*, pp, A09.
- Ajzen, I. (2002). Perceived behavior control, self-efficacy, locus of control and the theory of planned behavior. *Journal of Applied Social Psychology, 32*, 1-20.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211.
- Ajzen, I. & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions , and perceived behavioral control. *Journal of Experimental Social Psychology, 22*, 453-474.
- Ajzen, I., & Fishbein, M. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*, pp. 471-499.
- Armitage, C. J., & Conner, M. (1999). The theory of planned behaviour: Assessment of predictive validity and 'perceived control.' *British Journal of Social Psychology, 38*, pp. 35-54.
- Armitage, C. J., & Conner, M. (1999a). Distinguishing perceptions of control from self-efficacy: Predicting consumption of a low-fat diet using the theory of planned behavior. *Journal of Applied Social Psychology, 29*, 72-90.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*, pp. 122-147.
- Bandura A. (1989). Human agency in social cognitive theory. *American Psychologist, 44*, 1175-1184.

- Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55, pp. 178-204.
- Borders, A., Earleywine, M. & Huey, S. (2004). Predicting problem behaviors with multiple expectancies: Expanding Expectancy Value Theory. *Adolescence*, 39, pp. 539-551.
- Brenes, G. A., Strube, M. J., Storandt, M. (1998). An application of the theory of planned behavior to exercise among older adults. *Journal of Applied Social Psychology*, 28, pp. 2274-2290.
- Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review and avenues for further research. *Journal of Applied Social Psychology*, 28, pp. 1429-1464.
- Cravatta, M. (1997). Hanging on to students. *American Demographics*, 19, 11, pp.41.
- Davis, L. E., Ajzen, I., Saunders, J., & Williams, T. (2002). The decision of African American students to complete high school: An application of the theory of planned behavior. *Journal of Educational Psychology*, 94, pp. 810-819.
- Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion*, 11, 87-98.
- Mazis, M., Ahtola, O., & Kippel, R. (1975). A comparison of four multi attribute models in the prediction of consumer attitudes. *Journal of Consumer Research*, 2, 38-53.
- Manstead, A.S.R., & Van Der Plight, J. (1998). Should we expect more from expectancy-value models of attitude and behavior?. *Journal of Applied Social Psychology*, 28, pp. 1313-1316.
- Manstead, A.S.R., & Van Eekelen, S.A.M. (1998). *Journal of Applied Social Psychology*, 28, pp. 1375-1392.
- National groups join forces to improve college access. (2003, June 5). *Black Issues in Higher Education*, 20, 8.
- Pascarella, P.E. & Terenzinni, P.T. (1979.) Interaction effects in Spady and Tinto's conceptual models of college attrition. *Sociology of Education*, 4, 197-210.
- Paulsen, M. B. & St. John, E. P. (2002). Social class and college costs: Examining the financial nexus between college choice and persistence. *Journal of Higher Education*, 73, 189
- Richard, R. De Vries, N. K., Van Der Plight, J. (1998). Anticipated regret and precautionary sexual behavior. *Journal of Applied Social Psychology*, 28, pp. 1411-1428.
- Rosenberg, M. (1968). *The logic of survey analysis*. New York: Basic Books.

- Saltiel, J. (1988). The wisconsin model of status attainment and the occupational choice process. *Work and Occupations, 15*, pp. 334-355.
- Sheeran, P., & Orbell, S. (1999). Augmenting the theory of planned behavior: Roles for anticipated regret and descriptive norms. *Journal of Applied Social Psychology, 29*, pp. 2107-2142.
- Sparks, P., & Guthrie, C.A. (1998). Self-identity and the theory of planned behavior: A useful addition or an unhelpful artifice?. *Journal of Applied Social Psychology, 28*, pp. 1393-1410.
- Sutton, S. (1998). Predicting and explaining intentions and behavior: How well are we doing? *Journal of Applied Social Psychology, 28*, pp. 1317-1338.
- Terry, D. J., Hogg, M. A., & White, K. M. (1999). The theory of planned behaviour: Self-identity, social identity and group norms. *British Journal of Social Psychology, 38*, pp. 225-244.
- Terry, D. J., & O'Leary, J. E. (1995). The theory of planned behavior: The effects of perceived behavioural control and self-efficacy. *British Journal of Social Psychology, 34*, pp. 199-220.
- U.S. Census Bureau (2003). Income, poverty, and health insurance in the United States. *Current Population Reports. (P60-226)*.
- U.S. Census Bureau (2002). The Population 14 to 24 Years Old by High School Graduate Status, College Enrollment, Attainment, Sex, Race, and Hispanic Origin: October 1967 to 2002. *Current Population Reports. Table A-5*.
- Van Der Plight, J. & De Vries, N.K. (1998). Belief Importance in expectancy-value models of attitudes. *Journal of Applied Social Psychology, 28*, pp. 1339-1354.
- Woelfel, J. (1972). Significant others and their role relationships to students in a high school population. *Rural Sociology, 37*, 86-97.

BIOGRAPHICAL SKETCH

Disraelly Cruz was born in Tuscon, Arizona and raised overseas and in Florida. She attended the University of West Florida from 1998 to 2002, and graduated with a Bachelor of Arts in Organizational Communication and Political Science. She also earned a Leadership Certificate from the Department of Communication. In 2005, she earned her Master of Arts in Integrated Marketing and Management Communication from Florida State University. During her tenure at Florida State University, she worked as the Senior Connections Coordinator for the Tallahassee Senior Citizen's Foundation and assisted in the development of Senior Resource Library. In addition she served as a Teaching Assistant for both Public Speaking and Elements of Communication. In the fall of 2005, she began her Doctorate program in Organizational Communication at the University of Missouri at Columbia where she received an assistantship to teach Public Speaking and Mass Media in Society.