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DEVELOPMENT AND VALIDATION OF THE ALUMNI LOYALTY SCALE

by

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A DISSERTATION

Submitted to the graduate faculty of The University of Alabama at Birmingham,
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

BIRMINGHAM, ALABAMA

2012

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JENNIFER R. BRELAND

EDUCATION LEADERSHIP

ABSTRACT

Developing and maintaining alumni support of higher education institutions is continuously an area of interest for institutional administrators. The role that alumni play in the overall picture has somewhat changed throughout the decades, but what encourages this support has remained the same. A graduate of a higher education institution must have a sense of loyalty, along with other contributing factors, that will create the necessary motivation in order for an alumnus to support his or her alma mater. The purpose of this study is to identify the psychometric properties of an instrument intended to assist institutions with determining the level of loyalty that undergraduate alumni have toward their alma mater.

Two primary research questions guided the study: (a) how is the construct of alumni loyalty best described and measured; and (b) what are the psychometric properties of the developed and validated Alumni Loyalty Scale? By using a quantitative cross-sectional design supported by an extensive review of the literature and framed in organizational and social identification theory, an expert panel and pilot study shaped the items that are included in the final instrument. As a new instrument estimating validity and reliability were primary considerations and were estimated using exploratory factor analysis of the underlying construct and each subscale.

In developing the items for the Alumni Loyalty Scale a panel of 9 content experts were used to provide insight into the construct of loyalty based on experience in the field of

university advancement and provided responses to the necessity of each item and suggestions for improvement. The content validity ratio was calculated on each item and adjustments were made accordingly resulting in only minor changes to individual items. Following these changes, the revised instrument was distributed for pilot testing with a response of 1,029 participants. The analysis yielded a reduction from 31 to 24 items and resulted in a final three factor solution explaining 59.8% of the total variance.

Through the use of this design, the researcher was able to combine previous research, content experts and an exploratory factor analysis to provide a better understanding of the three primary factors that contribute to the determine the strength of loyalty of an alumnus: student experience, alumni perspective, and institutional reputation.

Keywords: alumni, loyalty, advancement, alumni giving, psychometric properties, higher education

DEDICATION

This dissertation is dedicated to my husband, Bryan, and my son, Jack, who have loved and supported me along the way. Thank you for your love, support, hugs and smiles!

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I would like to take the time to acknowledge so many individuals that have made the completion of this dissertation a reality. As I took each step through the process each of you were there to support and encourage me in the best of times and the worst of times.

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CHAPTER 1

INTRODUCTION

Loyalty can mean different things to different people and can have many definitions depending on the context in which it is used. Merriam-Webster defines loyalty as unswerving allegiance, faithful to a cause, ideal, custom, institution or product and the quality or instance of being loyal. Deriving from the 15th century French word *loialte* (Merriam-Webster, 2010), loyalty can be the driving force for human actions and often provides the bonding foundation between an individual and something of great value to him or her (Healy, 2007). A sense of loyalty is not something that can be forced, but is an emotional tie that is strongest when it is to a particular group with which one shares common experiences, values, and qualities that are seen as an enhancement to the life of an individual (Healy, 2007). According to the experts, developing a strong sense of loyalty among graduates is critical for both the short and long term success of institutions of higher education (Mosser, 1993; Spaeth & Greeley, 1970).

An important aspect for higher education institutions to consider is how loyalty is created and what must be done to maintain and enhance the sense of loyalty that an alumnus has for his or her alma mater. Although structurally very similar, each institution has certain aspects that create loyalty among its graduates and the institution must strategically build upon these elements (Ridley & Boone, 2001). However, there are some general experiences that research has shown will play a large role at any institution in shaping this emotional bond including: (a) the academic and social experience that students have had while on campus, (b) the perceived quality of the education that they received from the institution, (c) the level of involvement in

both academic and extracurricular activities throughout the collegiate experience, and (d) the extent of involvement and sense of belonging after graduation (Hoyt, 2004; Mosser, 1993; Weerts & Ronca, 2007; Weerts & Ronca, 2009). All of these aspects must be considered when creating an overall picture of the sense of loyalty that an alumnus has for his or her alma mater.

The goal of this study is to design and validate an instrument that can be used to assess alumni loyalty and its underlying constructs. With a greater understanding of the construct of alumni loyalty and a theoretically sound method for measuring the strength of this loyalty, an institution can use this information for multiple purposes. Of greatest practical relevance, however, may be to assist the institution in determining those alumni who are highly motivated to provide financial support back to the institution through various avenues of giving (Carbone, 1986; Mosser, 1993).

Purpose and Context

Philanthropic behavior is comprised of several components including psychographic properties such as: (a) loyalty, (b) relationship and communication with alumni, (c) demographic factors, and (d) socio-economic factors. Historically, philanthropic behavior has changed dramatically over the past several decades (Bekkers & Wiepking, 2001; Clotfelter, 2003; Hueston, 1992; Mann, 2007; Mosser, 1993; Taylor & Smart, 1995; Tsao & Coll, 2005; Weerts & Ronca, 2007). Additional variables can be examined to help quantify the extent of loyalty or dedication, but if an individual does not have a connection with his or her alma mater, the possibility for future financial support is likely nonexistent (Leslie & Ramey, 1986; Levine, 2008). Research has shown that the experiences students have had while on campus, the perceived quality of the education they received from the institution, and the level of

involvement in both academic and extracurricular activities throughout the collegiate experience must be measured to get a good picture of an individual's affinity for the institution (Hoyt, 2004; Weerts & Ronca, 2007). Since organizations or institutions have different perspectives of what needs to be done to create loyalty among their constituents, it is important that each higher education institution creates its own hallmark or unique identifier that makes it special to its graduates (Ridley & Boone, 2001). Therefore, each institution must strategically identify what is most important to its graduates and determine what makes the greatest long term impact on their educational experience in order to develop loyalty that will extend long after graduation and departure from the campus environment.

In addition to measuring loyalty, the institution must take into account other factors when identifying those individuals who are most likely to give back to the institution monetarily. Research has shown that alumni who voluntarily participate in various activities at or with the college or institution are more likely to give back to the institution financially (Clotfelter, 2003; Taylor & Smart, 1995; Wunnava & Lauze, 2001). However, these relationships must be established quickly once a student graduates or must begin even prior to graduation in order to maintain a strong emotional connection. Additionally, research has shown that individuals who have had long, intensive relationships with the institution after graduation are likely to be more generous with their financial gifts and support throughout their lifetime (Korvas, 1984). Studies have shown that alumni demographics will also affect an individual's propensity to support the alma mater after graduation. These demographic variables may include: (a) gender, (b) age, (c) school of graduation, (d) location of residence, (e) involvement with the institution after graduation, (f) income level, and (g) the number of degrees received from an institution (Hoyt, 2004; Mosser, 1993).

Based on a review of the literature, an alumnus' willingness to give must be driven by two primary components: motivation to give and capacity to give (Gallo & Hubschman, 2003; Volkwein & Parmley, 1999; Volkwein, Webster-Saif, Xu, & Agtates, 1989). For the purpose of this study, the focus will be on motivation.

In examining motivation, it appears that the basis for identifying today's alumni giver begins by determining the amount of loyalty that he or she holds for the alma mater. According to Hoyt (2004), if a strong relationship is not developed and fostered when an individual is a student and long after graduation, there is little hope that the individual will be a loyal alumnus. Therefore, the purpose of this study is to identify the psychometric properties of an instrument that is intended to be used in assisting institutions with determining the level of loyalty that undergraduate alumni experience with respect to their alma mater. Although there may be multiple uses for this instrument within higher education settings, the primary purpose will be to better understand the underlying concepts of "alumni loyalty" and create a useful instrument. It is suggested that this type of resource may provide guidance for better strategic planning efforts and allow an institution to examine the strength of loyalty and affinity that an individual has for the institution before investing significant funds in cultivating prospects. With the development of a reliable and valid alumni loyalty scale, institutions should be better prepared to scientifically quantify this elusive factor.

A quantitative approach, complemented by qualitative techniques, will be used to develop an instrument to determine those characteristics that are most important in developing and maintaining loyalty among graduates. The theoretical framework for this study will be based on organizational and social identification theory as well as charitable giving theory. Since there is no single theory that is all-inclusive in explaining the many variables associated

with alumni giving, a combination of theories across multiple disciplines will be used (Mann, 2007). These theories, along with qualitative research tools, will be used to create a reliable instrument for assigning a quantitative value to the construct of alumni loyalty. Once the instrument is developed, it will be piloted with a random sample of graduates from a single institution. Responses will be analyzed using exploratory factor analysis to determine the relevance of each item and estimate content and construct validity.

Significance of the Study

With an increased need for financial support and the decrease in funds available to court and cultivate alumni donors, identifying a way to more strategically identify individuals who are most likely to financially support their alma mater is critical. Although there are many sources that provide insight into what factors contribute to an alumnus financially supporting his or her alma mater, there is currently no reliable way to measure the sense of loyalty that an individual feels towards an institution. Without this necessary input, gauging an individual's propensity for giving is little more than guesswork. The goal of this study is to design and validate an instrument that can be used to assess alumni loyalty and its underlying variables in order to provide useful data for the purposes of improved institutional planning. The intent of this instrument will be to help higher education professionals better understand the connection between an institution and its graduates.

Research Questions

The following questions will serve to guide instrument development for determining an alumnus sense of loyalty to his/her undergraduate alma mater:

- 1) How is the construct of alumni loyalty best described and measured?
 - a. What factors make up the construct of loyalty?
 - b. What items best measure the factors identified to explain loyalty?
- 2) What are the psychometric properties of the Alumni Loyalty Scale?
 - a. What is the estimated level of content validity of the Alumni Loyalty Scale?
 - b. What is the estimated level of construct validity of the Alumni Loyalty Scale?
 - c. What is the estimated level of reliability of the Alumni Loyalty Scale?

Definitions of Key Terms

The following are key terms and the context in which they are used:

Alma Mater. The institution from which a graduate has received a degree.

Alumnus. An individual who has received a degree and graduated from a higher education institution.

Alumni. Alumni is the plural form of the term alumnus.

Annual Fund. The annual fund is a fund that encourages alumni to make financial gifts on an annual basis to certain schools/departments/programs within the institution

Beneficiary. An institution that is eligible to receive financial gifts through means of a will, insurance policy, retirement plan, annuity, trust, or other contract.

Bequests. A gift of personal property through assignment in an individual's last will and testament.

Construct Validation. A method for determining validity that shows the "extent to which an instrument yields scores that are consistent with what is known about the construct that the instrument is designed to measure" (Orcher, 2007, pp. 131).

Content Validation. A method for determining validity of an instrument by ensuring that the items included in the instrument are selected to adequately cover all possible areas of measuring the content domain (DeVellis, 2003; Orcher, 2007).

Corporate Contributions. Gifts given to an institution by a corporate entity, not an individual.

Donor. An individual who has chosen to provide support financially to his or her alma mater.

Endowment. A financial gift made to an institution to provide a continuous revenue stream for use by the institution through either a specific need stated by the donor or as unrestricted funds to meet operating needs or capital requirements that can be spent as the institution deems necessary. The principal typically remains intact in an investment account and the income generated creates the spendable portion of the endowment.

Estate Gift. A gift to an institution that is specified through the last will and testament of an individual and/or a spouse.

Exploratory Factor Analysis. The statistical method for analyzing data that allows the researcher to determine the number of latent constructs underlying a set of items or variables. A method for removing items from an instrument being designed that have no explanatory power to the overall construct being measured. For the purposes of this study, the construct is loyalty.

Foundation Secured Contributions. Gifts given to an institution through a charitable foundation designed to support philanthropic causes, usually based on the mission and values of the foundation creators. Foundations can be created by an individual, family, corporation, non-profit organization, etc.

General Fund. The general fund is a fund without requirements for how donated money will be disbursed and set up to deposit one time gifts.

Loyalty. Defined as unswerving in allegiance, faithful to a cause, ideal, custom, institution, or product (Merriam-Webster, 2010). Loyal alumni are those who hold a special affinity or strong emotional tie to an institution from which they received a higher education degree.

Prospect. An individual who is determined to be a likely candidate for making a gift or providing financial support to his or her higher educational institution. A prospect can be identified through different avenues including personal contact, post graduation involvement, student involvement, financial ratings, referrals, etc.

Validity. The degree to which evidence and theory support the interpretations of scores derived from instrument and found to be useful in appropriately measuring the intended variable.

Limitations of the Study

As with any study, several limitations may exist within the context of the study. One such limitation will be the focus on those graduates from a single institution. Expectations of graduates in different cities, states and regions of the country can vary depending on the selection criteria they used in selecting the institution and the major influences they experienced while enrolled. To compensate for this potential limitation, the validated instrument will be further tested through additional research across a cross-section of graduates from many institutions. Further testing should provide useful data for any institution regardless of its unique characteristics.

Additionally, responses on the loyalty measurement tool will be self-reported by individual graduates. With self-reporting techniques, answers may not be wholly honest and can be skewed by an individual's perception rather than reality. Negative emotions can be amplified while positive emotions may wane. A large sample size should mitigate this limitation so that the exploratory factor analysis technique will detect extreme variability in responses.

Finally, the use of the tool for its intended purpose will require significant planning and implementation on the part of administration in order to achieve maximum results. Institutions will need to incorporate this instrument into the strategic and annual operational plan with students and alumni at different stages in their educational and professional career in order to continuously gather data that is useful in identifying efficient and effective feedback. Without proper planning and implementation, results can be skewed and be determined useless for institutional advancement. This can often be difficult in a bureaucratic setting where systemic change is a slow process.

As the need for alumni support continues to increase, institutions will be forced to reevaluate current practices and find additional tools for assisting in the prospect identification and cultivation processes. The key to success with this tool will be buy-in from senior institutional leadership and communication of this need from an institutional level.

CHAPTER 2

LITERATURE REVIEW

Introduction

Alumni giving has always played a role as a major source of support for higher education institutions. These gifts account for approximately 45% of voluntary contributions for most four year institutions (Council for Aid to Education, 2009). This support is what sets one institution apart from the others as it provides an additional means for reaching a heightened level of excellence and uniqueness outside of the standard realm of higher education expectations (Leslie & Ramey, 1986). The most widely regarded method for alumni giving is an individual's a one-time or annual monetary contribution to an institution. However, financial support can be secured in many different ways once an alumnus commits to the idea of giving. Vehicles for giving can include corporate and foundation secured contributions, employer matching gift benefits, and paper instruments such as stocks and bonds, bequests and planned giving vehicles that establish the institution as the beneficiary of insurance policies, wills and trusts, and estate gifts. Regardless of how an alumnus supports his or her alma mater, alumni gifts and the endowments they create are becoming increasingly important to the funding of higher education institutions. According to the experts, the need for alumni giving will only increase as institutions strive to meet goals and to replace government appropriations (Cunningham & Cochi-Ficano, 2002).

Across the country, state and federal appropriations for higher education have been drastically reduced (Cheslock & Gianneschi, 2008). For many institutions that receive funding support is not keeping up with demand and cannot continue to meet the growing needs of stakeholders. This situation has forced institutions to rely more heavily on the charitable giving items in their operating and capital budgets. According to the 2009 Voluntary Support of Higher Education Survey, charitable giving to colleges and universities in the United States decreased by 11.9% to \$27.85 billion, representing the most significant decline in charitable giving since the survey began in 1952 (CAE, 2009). However, while colleges and universities experienced an overall decline in charitable giving, alumni giving has remained steady providing an average of 25.6% of voluntary support to higher education in 2008 at which point there was a comparable decrease of 1.9%. This represented the first decline over the past 10 years, where the average increase in alumni giving has been 4.1% each year (Council for Aid to Education, 2009).

With an increased need for support and a decrease in the funds available to court and cultivate alumni donors, devising a method to strategically identify individuals who are most likely to financially support their alma mater is a critical necessity. Although there are many sources of information that provide insight into factors for alumni giving, there is no theoretically sound way to measure the sense of loyalty that an individual feels towards his or her alma mater. Without this specific knowledge, it is difficult to determine the most likely prospects for giving. The goal of this research is to create and validate an instrument that can be used to assign a summative value to the concept of loyalty and its underlying constructs. As a result of this research, advancement professionals can use this instrument to enhance giving prospects and identify areas for improvement within the university that will foster a deeper sense of loyalty from future alumni prior to graduation.

History of Institutional Giving/Philanthropy

In today's world, the financial health of public institutions is of increasing concern to higher education administrators as federal and state funding for higher education continues to decrease (Cheslock & Gianneschi, 2008; Okunade, Wunnavu, & Walsh, 1994). The funding methods for higher education have changed with the progression of the higher education system. In order to better understand the evolution of the funding sources, a brief overview is needed.

With the inception of higher education, institutions were primarily funded by either the royalty that was currently in power or the colony that would provide the physical location in which the institution was located. Funding structures were much less formal and decentralized (Thelin, 2004). Organized religion was closely tied to these early institutions, and created a significant pool of resources for the institution. Philanthropy was seen as necessary to further the work of the Church and its important mission of bringing religion to nonbelievers (Thelin, 2004). According to Thelin (2004), some institutions provided a prospectus that indicated philanthropy to higher education "might help one to a place in heaven" (p.16). Additionally, tuition dollars played a large role in financing the early institutions. Although some schools tried to keep tuition reasonable for their intended enrollees, and limit what students could be charged, primarily these payments along with assistance from royalty and colonies, and philanthropy from alumni, comprised the entire operating budget (Thelin, 2004).

The need for greater private support from alumni began in the late 1700s when the government began to make requests to provide certain courses of study within the institution that did not coincide with desires of administration and alumni. As a result, Williams College in Williamstown, Massachusetts, is credited with forming the first, officially recognized alumni

association to support an institution in 1821 (Curti & Nash, 1965; Mosser, 1993). Changes in funding structure and the creation of alumni organizations fundamentally altered the ways in which individuals, as the recipients of charitable giving, selected their higher education institutions. By 1864, the University of Michigan became recognized as the leader in the field by its peer institutions for cultivating alumni for giving. Through these efforts, the University of Michigan established a framework that other institutions have followed in creating and establishing a strong alumni presence on higher education campuses (Mosser, 1993).

Beginning in the late 1800s, the predominance of religion became less of a factor in influencing individual gifts for American institutions of higher education. Instead, large gifts from foundations, trusts, and estates became the preferred method of raising funds needed for institutional operation. This time period marked a shift away from the small individual giver to an emphasis on the large, wealthy donors who could provide substantial contributions to sustain an institution well past the initial gift year. This method of solicitation maintained the president's role as the institution's chief fundraiser, but fostered the need and prevalence of a 'development officer' to facilitate relationships with wealthy families and corporations that could serve as benefactors for the institution. By changing funding strategies, universities and colleges were able to identify more permanent funding sources and become less reliant on state appropriations, tuition, and individual gifts (Thelin, 2004).

Not all institutions were fortunate enough to have created endowments that provided necessary funding for all operations. Endowments are special accounts that have been created by gifts to an institution for a specific purpose; the institution uses the interest earnings from this account to generate revenue necessary to fund those specific areas. Endowments provide institutions with a level of security during difficult economic times as they can withstand a

fluctuation in markets better than fixed items that comprise the annual operating and capital budgets. In essence, endowments provide a solid foundation that allows the institution to withstand volatile sources of funding and provide a foundation for success.

Between 1890 and 1920, a change in higher education began to take place. The United States experienced major growth in public institutions of higher education. With the passage of the Hatch Act of 1887 and the Morrill Act of 1890, federal funding was increased to help establish Land-Grant Universities also known as public, state institutions of higher education (Thelin, 2004). These land-grant universities provided the resources and curricula to ensure that federal interests were being met in the areas of agriculture, military preparation, and engineering. State appropriations for these institutions were high and served as the primary source of funding. Although student tuition at land-grant institutions was typically lower than tuition at private institutions, individual gifts remained a necessity for institutions to establish endowments and much-needed operating funds. With the number of young institutions growing, individual interest in philanthropy quickly began to wane. Institution's interest in soliciting gifts from large foundations increased as a way to develop specialized schooling for various scholarly topics and advanced studies that would broaden the scope of institutions and attract students from across the country (Thelin, 2004).

In the contemporary world of higher education, the financial picture for institutions is much different with regards to the sources of funding that are available. Since 2000, institutions have experienced an unparalleled decrease in both government and corporate philanthropy (Council for Aid to Education, 2009; Cunningham & Cochi-Ficano, 2002). According to the experts, this new economic reality will require institutions to identify more ways to fill in the

gaps while continuing to offer quality programs in order to remain competitive in the marketplace (Tsao & Coll, 2005).

Trend research by the Council for the Aid to Education, has shown that alumni giving to institutions has increased overall with only slight declines beginning in 1988. Although the economy has started to recover, researchers have expressed concern that the current level of funding cannot sustain the growing demands of higher education based on the following factors: (a) a projected growth in prospective high school classes seeking further educational experiences, (b) a high unemployment rate requiring non-traditional students to seek further career training, and (c) a shift in hiring standards requiring postsecondary education as employment prerequisites (Breneman, 2002; Keller, 2001). Based on these projections it is incumbent upon institutions to better understand how alumni loyalty is developed and fostered so that graduates can be encouraged to give back to their alma mater.

The underlying questions remain: a) what factors contribute to an alumnus' sense of loyalty, b) how can that sense of loyalty be maintained after graduation, and c) how can an individual's sense of loyalty be used as a springboard for alumni giving? As previously stated, there is a growing need by institutions to identify individuals who will provide a financial gift back to their alma mater since alumni giving has increasingly become a significant part of their overall operating and capital budgets (Tsao & Coll, 2005).

Theoretical Perspectives of Alumni Giving

Research has shown that all of the factors for giving to a higher education institution can be grouped into one of two categories: motivation to give and capacity to give (Gallo & Hubschman, 2003; Vokwein, Webster-Saft, Xu, & Agrotis, 1989). Multiple facets comprise

each factor, but for the purpose of this research the focus will be limited to motivation and the elements that contribute to an individual's motivation to give. Although motivation to give cannot stand on its own or provide a significant predictive power individually, research has shown that it is one of the primary components in creating and sustaining an alumni donor and therefore warrants its own investigation (Weerts & Ronca, 2009).

Motivation

Motivation is a complex concept to understand due to its inherent uniqueness to each individual. Personal values and goals, culture, religion, and society can all have varying levels of influence over a person's decision making process (Vokwein, Webster-Saft, Xu, & Agroles, 1989). Therefore, when determining the motivation that a graduate possesses towards supporting his or her alma mater it is important to first consider the general drivers of motivation and then fine tune the variables that can be controlled in order to foster and maintain his or her interest with respect to making a financial gift in support of an institution (Carbone, 1986; Mosser, 1993).

Extensive research has been conducted with regards to donor motives and shown that no single discipline can provide the theoretical perspective necessary for understanding this phenomenon. Rather, a combination of perspectives can be used to derive a sophisticated model of understanding for the purposes of informing an institution's strategic planning and implementation of intentional goals. This model begins with the concept of altruism. Altruism has been examined by a variety of disciplines including economics, sociology, and religion (Hoyt, 2004). The economic view of altruism describes it as a selfish activity that provides an emotional or tangible benefit to the donor, such as a positive self image, a tax deduction, or

public recognition (Mann, 2007; Radley & Kennedy, 1995). From a sociological viewpoint, self interest or pressure from a peer group can influence one's altruistic behavior (Mann, 2007; Rosenhan, 1978). Finally, various cultural or religious affiliations that encourages support for the greater good of society or to aid in common practices that are important to the group or community (Cohen, 1978; Wood & Hougland, 1990). Altruism provides only a partial foundation for understanding an individual's philanthropic giving to his or her alma mater.

Volkwein's Model of Alumni Gift Giving Behavior

Volkwein et al. (1989; 1999) provided the first theoretical model to explain the motivation that affects alumni giving, moving past the general donor motives and taking into account the actual individual and his or her collegiate experience. In this model, Volkwein (1999) shows the direct correlations between alumni activities and the financial support provided by these graduates and identified the variables that could best predict future alumni behavior. This model was seminal in providing university advancement personnel a theoretically sound framework and practical resource for shaping fund raising strategies (Volkwein, Webster-Saft, Xu, & Agrotis, 1989). Figure 1 shows the structural and theoretical model of alumni gift giving behavior presented by Volkwein et al. (1989). Building upon previous research by Melchiori (1988), Connolly and Blachette (1986) and Smart and Pascarella (1986) gift giving is seen as a function of both capacity and motivation, both of which are products of background factors and prior experiences. Demographics background and academic and social integration are considered primary contributors to degree attainment which, in turn, influences an individual's perspective about his or her institution (Volkwein et al., 1989). In determining loyalty, the primary concern is how contributing variables affect motivation.

Figure 1. Volkwein’s structural and theoretical model of alumni gift giving behavior.

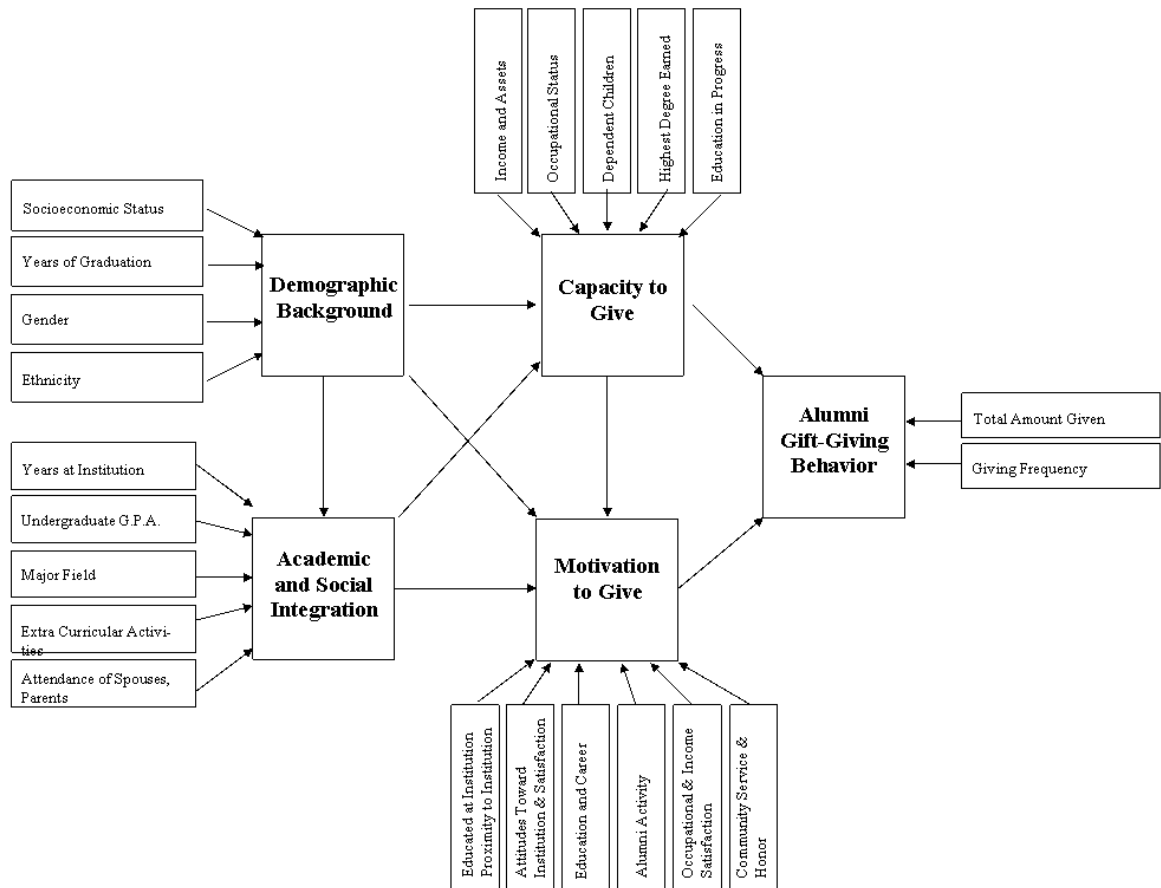


Figure 1. Visual model of the factors and contributing elements to explain Volkwein’s model of alumni gift giving behavior. Adapted from “A Model of Gift-Giving Behavior” by J.F. Volkwein, L. Webster-Saft, W. Xu, & M.H. Agrotis, May 1989, a paper presented at the annual meeting of the Association of Institutional Research, Baltimore, Maryland. (ERIC ED308761).

Although the model is thorough in addressing variables that will affect motivation to give it does not address outside influences that may also affect an alumnus’ decision to provide financial support including the ways in which an individual interprets the notion of altruism (Hoyt, 2004; Volkwein & Parmley, 1999; Volkwein, Webster-Saft, Xu, & Agrotis, 1989).

Mosser's Model of Alumni Gift Giving Behavior

Building on Volkwein's earlier model (1989, 1999), Mosser emphasized the importance of capacity to give and motivation to give and the interaction that occurs between the two to influence alumni giving. Despite many similarities between these two models, Mosser's research (1993) expands the concepts of academic and social integration as related to alumnus gift giving behavior (Hoyt, 2004). As shown in Figure 2, Mosser (1993) separated the single concept into two distinct constructs in order to better represent the differing influence that each has on an individual's collegiate experience and subsequently motivation and capacity to give. Additionally, Mosser (1993) removed the construct of demographic background since the results only showed this factor to be a measurement variable rather than true latent variable and tended to be redundant since the original model was built on demographic information (Mosser, 1993). The primary implications provided by Mosser's (1993) model to predict alumni gift-giving behavior is three-fold. It provides a tool for institutions to examine the impact of various changes to curriculum and funding initiatives, a basis for better segmentation of alumni based on differing constituents interest for efficient and successful solicitation, and the importance of interfacing with students on a meaningful level while they are on campus in order to influence opinions towards alumni support post-graduation (Mosser, 1993).

Figure 2. Mosser’s model of gift giving behavior.

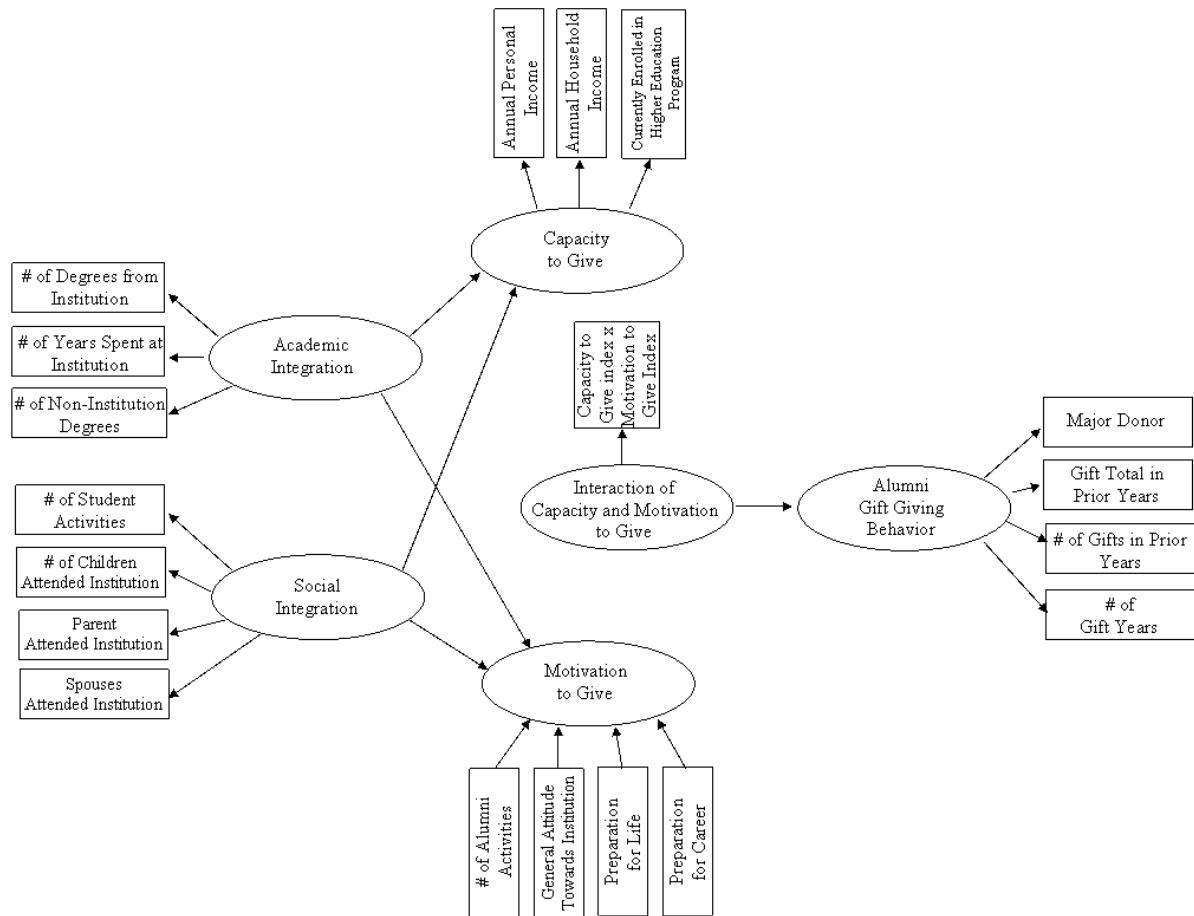


Figure 2. Visual model of the factors and contributing elements to explain Mosser’s model of alumni gift giving behavior. Adapted from “Predicting alumni/ae gift giving behavior” by J.W. Mosser, 1993, *Doctoral Dissertation*, University of Michigan. (ERIC ED355883).

Hoyt’s Model for Predicting Donor Status

Most recently, Hoyt (2004) developed a model for predicting donor status based on previous research of primary psychological factors and three sets of outcomes that influence motivation to give to one’s alma mater. The factors included: (a) personal values and preferences with regards to altruism, (b) perceived need and efficacy, and (c) overall satisfaction

with one's education (Hoyt, 2004). According to Hoyt (2004), overall satisfaction is influenced by an individual's educational outcomes, employment outcomes and the level of involvement that an alumnus has after graduation (Hoyt, 2004). As shown in Figure 3, Hoyt's model (2004) incorporates all of the aspects of the previous two models by Volkwein (1989, 1999) and Mosser (1993) and adds the following elements: (a) economic conditions, (b) competing charities, (c) alumni satisfaction, (d) altruistic values and preferences, (e) alumni's perceived need and efficacy of use, and (f) solicitation methods that are employed - all which contribute directly to an alumnus motivation to give and must be considered in evaluating willingness to act on that motivation (Hoyt, 2004). Hoyt's model (2004) was the first one to combine all of the variables with the concept of interaction between one another. As demonstrated by Hoyt (2004), each variable proves to contribute to the motivation that an alumnus has to support his or her alma mater either through a direct or indirect path (Hoyt, 2004).

Mann's Theoretical Perspective for Understanding Donor Motives

With the previous models providing a general picture of the variables associated with donor behavior, Mann (2007) examined the underlying theory that explains donor motives. Mann's (2007) research combined the theoretical perspectives of relationship building and cultivation, in order to better understand the basis of donor motives and philanthropic giving. Foundational theories in Mann's (2007) framework include: a) charitable giving theory, b) organizational identification theory, c) social identification theory, d) economic theory, e) services-philanthropic theory, and f) relationship-marketing theory. The multi-disciplinary

Figure 3. Hoyt’s model for predicting donor status.

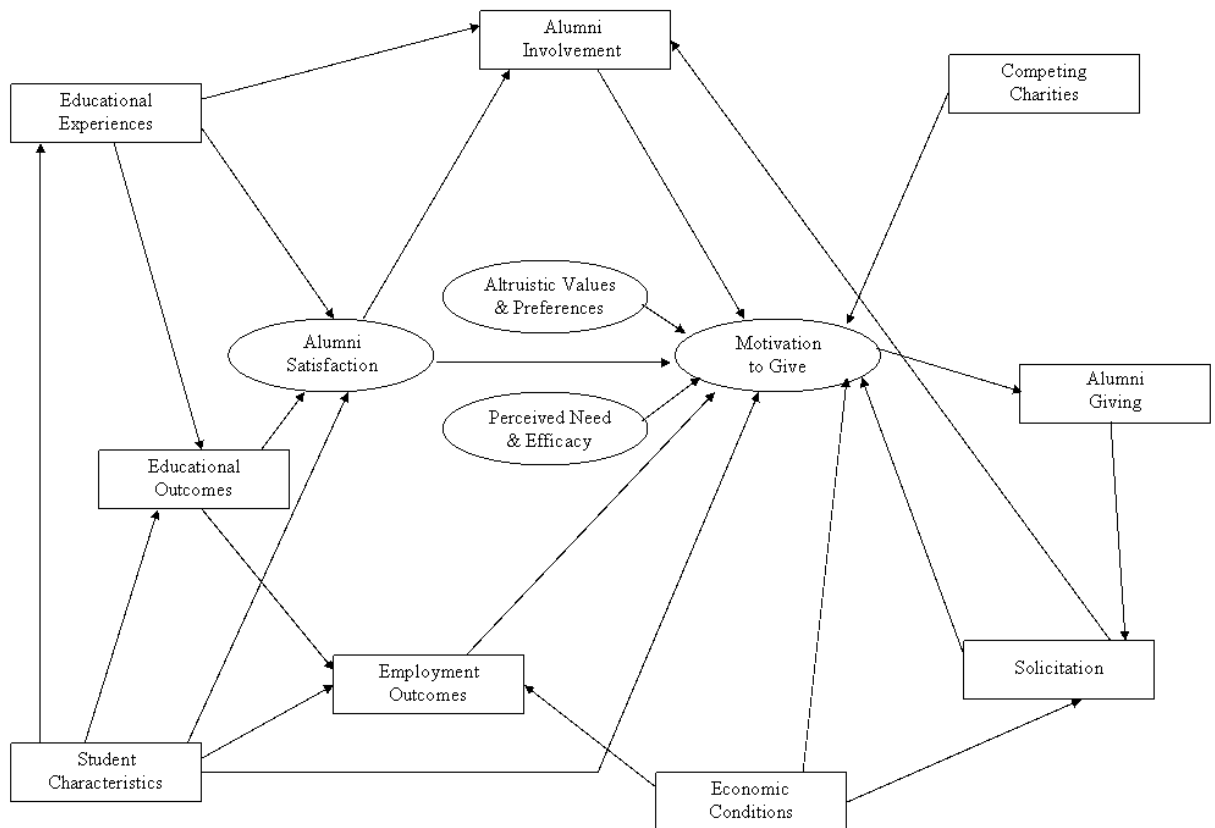


Figure 3. Visual model of the factors and contributing elements to explain Hoyt’s model for predicting donor status. Adapted from “Understanding Alumni Giving: Theory and Predictors of Donor Status” by J.E. Hoyt, 2004, May 28 – June 2, Boston, MA: Online Submission, Retrieved from EBSCOhost.

nature of this framework provides a comprehensive look at the ways in which alumni relations, development efforts, and external outreach efforts work together to effectively benefit the institution (Mann, 2007). Individually, each theory provides insight, but together the combined theories make a much stronger case for support of donor behavior (Mann, 2007).

The referenced research lays a strong foundation for understanding the motivation that is associated with alumni giving and the complex nature of identifying and soliciting funds from graduates. Research has shown that before motivation to give develops an individual must first establish a sense of loyalty to an institution, and this is fostered over time based on certain experiences within one's life with the institution (Hoyt, 2004).

Research has shown that altruistic desires, whether truly philanthropic or driven by self-interest, when paired with loyalty can provide the ultimate motivation for an individual to become an institutional donor (Shadoian, 1989; Weerts & Ronca, 2009). Half of Mann's (2007) model is devoted to providing a theoretical basis for understanding altruism and loyalty. It is comprised of charitable giving theory, organizational identification theory and social identification theory.

Charitable giving theory. Charitable giving theory is based on three basic premises: (a) altruism, (b) reciprocal benefits, and (c) direct benefits (Bruggink & Siddiqui, 1995; Mann, 2007). Altruism, as previously described, can be attributed to motives based on self interest versus motives based on the best interest of the institution. Regardless of intent, altruism benefits the institution. However, altruism based on self-interest places the needs of the donor ahead of the needs of the institution. An individual may give in order to gain personal benefits such as public recognition, self-esteem, financial benefits, or a need to fit into an established social group's norms. Giving based on the best interests of the institution may simply reflect a donor's understanding of perceived need, his or her feeling of contributing to the greater good of the institution, or a gift the donor feels will make a difference for the institution (Andreoni, 1989; Becker, 1974; Keating, Pitts, & Appel, 1981; Mann, 2007; Weerts & Ronca, 2009).

Figure 4. Mann’s theoretical framework for understanding donor motives.

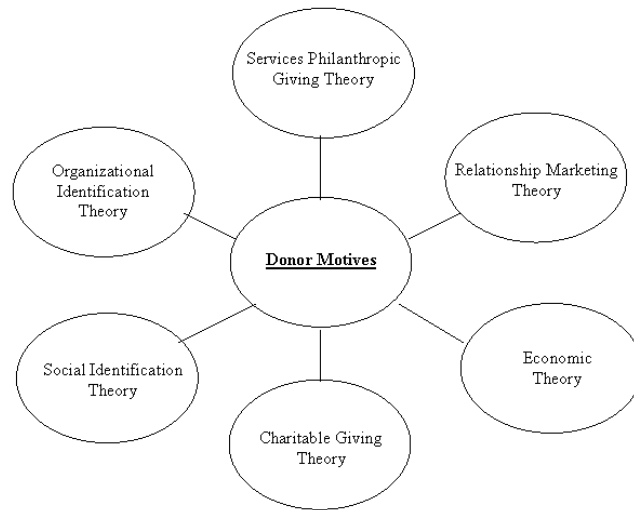


Figure 4. Visual model of the factors and contributing elements to explain Mann’s theoretical perspective for understanding donor motives. Adapted from “College Fund Raising Using Theoretical Perspectives to Understand Donor Motives by T. Mann, 2007, *International Journal of Educational Advancement* , 7 (1), 35-45.

There are both reciprocal and direct benefits of giving to the donor in return for making a gift to the institution. Reciprocity has been described as the motivation to make a gift with the expectation of receiving a benefit in return. When acting in this regard, the gift giver is entering into a repetitive cycle in which he or she feels an obligation to pay, expects to receive some form of recognition, and then repeats gifting to the institution (Bruggink & Siddiqui, 1995; Mann, 2007; Olsen, Smith, & Wunnava, 1989). Essentially, this cycle establishes a pattern or habit that will create a lifelong giver. Direct benefits are closely associated with the elements of impure

altruism because the donor expects to receive an actual personal benefit for making the gift (Andreoni, 1989; Weerts & Ronca, 2009). Direct benefits can range from psychological rewards, such as greater satisfaction with donor's academic degree when the prestige of the institution increases, to tangible rewards such as the donor's name being recognized in print on the campus, invitations to return and be featured at his or her alma mater, or an induction into a highly recognized donor society (Andreoni, 1989; Olson, 1965; Weerts & Ronca, 2009). The charitable giving theory describes why an individual would contribute to *any* charitable organization. Organizational and social identification theories, however, lay the foundation for why an individual would feel loyalty to a *specific* institution and choose to gift accordingly.

Organizational identification theory. Organizational identification (OI) theory is based on the belief that individuals define themselves by their association with an institution and that they develop a strong connection and sense of pride in the success that the institution experiences (Boros, 2008; Mann, 2007). It is only in the last two decades that a distinction has been made by researchers in the field between organizational commitment (OC) and OI and the two terms are often used interchangeably. Both OI and OC describe an attitude or feeling that connect a person's identity to an organization, causing the expectations of the individual to align with those of the institution (Boros, 2008; Meyer & Allen, 1997). According to research, understanding an alumnus' strength of loyalty to his or her alma mater can aid in knowing why the alumnus is motivated to give (Young, 1981). Since social identification theory (SI) provided the original foundation for OI, the underlying principles of SI merit additional attention. In The connection between OI and SI was first developed by Ashforth and Mael (1989).

Social identification theory. Social identification theory (SI) is based on the notion that individuals develop a psychological connection to an institution. SI describes how an individual psychologically “adopts” the institution (Ashforth & Mael, 1989; Foote, 1951; Mann, 2007). Research literature has suggested that SI is supported by an individual’s knowledge that he or she: (a) belongs to a certain social category in which he or she is like others in the group, (b) is psychologically intertwined with the group, and (c) shares the same views as others within the group (Hogg & Abrams, 1988; Mann, 2007; Stets & Burke, 2000). Social identification involves two important processes: self categorization and social comparison, both of which can have positive and negative effects on the individual. When paired with organizational identity, an individual may feel the amplified effects of the organization’s attitudes, beliefs, values, and actions (Hogg & Abrams, 1988).

Ashforth and Mael (1989) defined the first basic form of identification as self-categorization and provided four principles associated with group identification. The principles include the following:

- Identification is a perceptual-cognitive concept, not necessarily associated with specific behaviors or emotional states;
- Group identification can best be explained by experiencing a group’s successes, accomplishments, and failures on a personal level;
- Identification does not necessarily mean internalization. Identification is defined as thinking of one’s self based on a certain social category. Internalization is best defined as sharing the same attitudes, values and principles as the group and reflecting these in one’s own behavior;

- Group identification is similar to self identification in that someone defines oneself in much the same way as the parameters used to define the organization.

(Boros, 2008; Hogg & Turner, 1987).

Based on these four principles, Mael and Ashforth (1992) developed the Organizational Identification Scale. The researchers designed the following statements to quantify organization identity for individuals:

- *“When someone criticizes [organization], it feels like a personal insult;”*
- *“When someone praises [organization], it feels like a personal compliment;”*
- *“If a story in the media criticized [organization], I would feel embarrassed;”*
- *“I am very interested in what others think about [organization];”*
- *“This [organization’s] successes are my successes;”*
- *“When I talk about [organization], I usually say ‘we’ rather than ‘they’”*

(Bergami & Bagozzi, 2000; Boros, 2008; Mael & Ashforth, 1992).

The Organizational Identification Scale is primarily targeted for businesses with emphasis placed on workplace OI. Research has shown that functions of this scale are applicable across the disciplines in the social sciences, such as education and institutional identification (Mael & Ashforth, 1992).

Dutton, Dukerich and Harquail (1994) refined the definition of OI to include the degree to which one measures him or herself by the goals, values, and mission that define the organization. Findings of this research identified two signs of strong OI: (a) an individual’s OI is more prominent than that with other organizations and (b) the characteristics that define the organization are also interchangeable with the characteristics that the individual believes define him or herself (Boros, 2008; Haslam, 2001). According to the research, three ways of

determining the OI that an individual feels towards an organization include the following: (a) allowing individuals to self assess through survey style data gathering, (b) asking individuals to respond to sets of variables that the organization feels are important and comparing results, and (c) independently evaluating individual characteristics with organizational characteristics and determining the overlap in the two (Boros, 2008; Dutton, Dukerich, & Harquail, 1994).

According to Mael and Ashforth (1992), there are a number of organizational and individual antecedents that correlate with organizational identity. Organizational antecedents that directly affect organizational identity include organizational distinctiveness and organizational prestige while interorganizational competition has been shown to have both a positive and negative effect on organizational identity. Individual variables that positively affect organizational identity include: (a) organizational tenure, (b) length of time since attendance, (c) existence of a mentor, (d) overall satisfaction with the organization, and (e) sentimentality. Conversely, the number of additional institutions that an individual has attended was shown to have a negative affect (Mael & Ashforth, 1992).

Factors that Influence Alumni Giving

According to Tsao and Coll (2005), one of the primary components of philanthropic behavior is psychographic properties, which includes: (a) loyalty, (b) relationship and communication with alumni, (c) demographic factors, and (d) socio-economic factors. Based on the research, patterns of alumni giving have changed significantly over time. Initially, when an individual developed a sense of loyalty with an organization or institution, he or she felt a need to provide necessary support for ensuring the future success and growth of the institution. According to *The Chronicle of Philanthropy* (2005), supporting one's school or university

ranked sixth out of nine categories for organizations that individuals choose to support. More recently, givers have come to expect something in return. Research has shown that donors want more than just tangible returns. They expect an accounting of how their donations are used, recognition of their support and a reason to give beyond simple altruism. These new expectations not only show a changing demographic for donors, but also a shift in attitudes that donors have towards altruistic causes (Guy & Patton, 1999; Hoyt, 2004). Givers do not give just because they *should*, individuals wait until they can give or have reason to give or to see proof that there is a necessity and ascertain how their gift will help meet that need. There is no single factor that determines whether an alumnus will give back to an institution or not.

To illustrate this recent change in attitude, one study showed that between 1990 and 2000, the age of donors had significantly increased from 50% being under the age of 50 in 1990 to 67% being over the age of 65 in 2000 (Weerts & Ronca, 2009). These data clearly show that officers in alumni relations must take into account several factors that play a role in alumni giving and strategically develop a plan for harnessing that desire or motivation (Strout, 2006).

The research literature on alumni giving is non equivocal, if an individual does not have a sense of loyalty or connection with his or her alma mater, the possibility for future financial support is unlikely. Additional variables can be measured to help quantify an individual's sense of institutional loyalty include: (a) Researching the experience that students have had while on campus, (b) perceived quality of the education from the institution, and (c) level of involvement in both academic and extracurricular activities throughout the collegiate experience. Research has shown that the combination of these variables can be measured to develop a comprehensive picture of an individual's affinity for the institution (Hoyt, 2004; Mosser, 1993; Weerts & Ronca, 2007; Weerts & Ronca, 2009).

Loyalty

There are many definitions of loyalty depending on the context in which it is used. Merriam-Webster (2010) defines *loyal* as unswerving in allegiance, faithful to a cause, ideal, custom, institution, or product and defines loyalty as the quality, state or instance of being loyal. Derived from the 15th century French word *loialte* (Merriam-Webster, 2010), loyalty can be the driving force for human actions and often provides the bonding foundation between an individual and something of great value to him or her (Healy, 2007).

According to Healy (2007), loyalty is strongest when it is to a particular group with which one shares common experiences, values, and qualities that is seen as an enhancement to the life of the individual. The loyalties can be formed in one of two ways, horizontally or vertically (Healy, 2007). Horizontal loyalties are those that are formed between the individuals who comprise the organization; vertical loyalties are those that are developed between the individuals in the organization and the overall organization itself. Both configurations can have positive and beneficial results for the organization, but care must be taken not to allow some forms of loyalty to exclude some members and ultimately distance them from the organization (Healy, 2007). Identifying ways to develop loyalty is useful for understanding how to create allegiances. Healy (2007) stated that loyalty, “identifies those we are bound to as well as those whom we can count on and who in turn can count on our help” (pp. 752-753).

Loyalty can be described as the satisfaction that an individual feels from the education that he or she received from the graduating institution based on the educational and employment outcomes that have been realized (Hoyt, 2004). These feelings can be tied to the following: (a) quality of education that a student feels that he or she has received, (b) accessibility to assistance

from faculty and staff members within the institution, (c) educational experiences that were had while on campus, (d) usefulness of learning outcomes and (e) attainment of degrees (Hoyt, 2004; Mosser, 1993; Weerts & Ronca, 2007; Weerts & Ronca, 2009).

Loyalty can also be derived from a strong emotional tie that an alumnus has for an institution. If a family legacy has been established at the university in which a graduate's parents and grandparents or children and grandchildren have also attended, research has shown that the emotional attachment will grow increasingly stronger and therefore provide motivation for donor support (Okunade & Berl, 1997; Shadoian, 1989; Wunnava & Lauze, 2001). This loyalty can be powerful enough to convince an alumnus to respond to a need that the university has in order to see the institution prosper to support future legacies. Additionally, researchers have shown that this emotional loyalty can be nurtured by increased involvement with and contact by an institution after graduation (Hoyt, 2004; Pearson, 1999). While influenced by proximity after graduation, the greater the connection that is maintained with an alumnus, the better the opportunity an institution has to grow the relationship, strengthen the desire for a continued family legacy and ultimately create financial donors who want to see *their* institution grow and become stronger both internally and externally (Mosser, 1993; Spaeth & Greeley, 1970).

In order to *brand* a sense of loyalty among its constituents, researchers have suggested that each higher education institution create its own hallmark or unique identifier that makes it special to its graduates (Ridley and Boone, 2001). To do this, each institution must strategically identify what is most important to its graduates and determine what makes the greatest long term impact on their educational experience. This will ensure that that an individual's sense of loyalty will extend long after graduation and subsequent departure from the campus environment.

In a report published by Ridley and Boone (2001) at Virginia Wesleyan College (VWC), the characterization of a loyal alumnus is as follows:

A loyal alumnus/a is a graduate who readily acknowledges the unique contribution of VWC in his/her personal and professional growth and one who has maintained an active interest in the college. He or she:

- Understands and appreciates the value of higher education
- Valued the education received and believed it was a high quality and an excellent investment
- Was satisfied with experience as a student
- Had a minimum of unresolved issues, grievances or unmet needs
- Appreciated the services received and efforts made on his/her behalf
- Appreciates current benefits of being an alumnus/alumna and takes advantages of them
- Believes his/her degree (if applicable) is highly regarded
- Maintains ties with [institution] to extent of ability (distance and opportunity)
- Supports VWC in appropriate ways (p. 2).

While these identified characteristics are specific to Virginia Wesleyan College, the underlying ideas can be modified to apply to any institution. This is not an exhaustive list, but a place to begin developing what best identifies loyalty to a specific institution. The investigation performed at VWC, consisted of both quantitative and qualitative techniques that identified how to enhance alumni loyalty (Ridley & Boone, 2001). It was suggested that this research could provide the basis for determining the strength of loyalty for any alumni (Ridley & Boone, 2001). According to the researchers, this investigation was conducted within the context that “loyalty

comprises labors of love as well as sums written on bank drafts, and favorable word-of-mouth advertising as well as attendance at alumni events” (Ridley & Boone, 2001, p. 13). As previously stated, once loyalty is identified, the next step is to harness it by identifying individuals who are most likely to give back financially to their alma mater.

Relationship Building and Communication Factors

In addition to measuring loyalty, efforts on behalf of the institution must be taken into account when identifying individuals who are most likely to give back. Research has shown that alumni who voluntarily participate in various activities at or with the college or institution are more willing to give back to the institution financially (Clotfelter, 2003; Taylor & Smart, 1995; Wunnava & Lauze, 2001). However, these relationships must be established quickly once a student graduates or begin prior to graduation in order for them to be productive and ensure that a sense of loyalty is maintained. Additionally, those who have long, intensive relationships after graduation are likely to be more generous with their gifts and support throughout their lifetime (Korvas, 1984).

One of the most efficient ways to ensure an individual’s initial level of engagement as a new graduate is to involve them as a member of the institution’s alumni association. According to Boyle (1990), the more involved an alumnus is in alumni association activities after graduation the more positive his or her attitude towards the alma mater will be. In a recent study at one institution, membership analysis showed a vast decline in the probability of membership in the alumni association for each year that passed after graduation (Toker & Kankotan, 2009). Research literature suggests that advancement professionals can: (a) identify graduates who have a level of loyalty and affinity for their alma mater, (b) build on this existing relationship, and (c)

tailor the level of engagement that will meet the needs and desires of an alumnus, ultimately encouraging further support (Clotfelter, 2003; Radley & Kennedy, 1995; Taylor & Smart, 1995).

Researchers have also identified constant communication as an important factor in keeping alumni connected and maintaining the loyalty that has been developed. A constant communication channel allows graduates to stay current with the developments of their institution, the areas of financial need, and the successes that continue to add value to their degree (Bekkers & Wiepking, 2001; Weerts & Ronca, 2007; Weerts & Ronca, 2009).

Researchers cite the vast array of communication techniques that institutions employ as evidence of the important role these media play in institutional fundraising (Hoyt, 2004; Levine, 2008). However, the limited time and financial resources available can often make a comprehensive communications plan a challenge, requiring greater information on who the target alumni will be and tailoring the communications plan to meet their specific needs. It should be noted that in Levine's (2008) study on the relationship between communication pieces and alumni giving, there was no connection between the number of pieces received and the rate of giving. Results were determined by comparing the type of communication to the desired result. For larger gifts to the institution's general fund, magazines and e-newsletters were effective. For greater participation in the annual fund, however, the greater the number of appeals during a specific campaign the lower the levels of participation and giving (Levine, 2008).

Demographics and Socioeconomic Factors

According to the experts, alumni demographics may also affect an individual's propensity to support his or her alma mater. Demographic variables have been widely studied to

determine the characteristics of alumni who are most likely to support their alma mater (Mosser, 1993). However, there is no consensus regarding the role these variables may play as predictors of alumni support (Hoyt, 2004). Demographic variables that have been studied include the following:

- *Gender.* Based on research by Weerts and Ronca (2007), females have a greater tendency to volunteer and give back to organizations. Research indicates that women are more committed to volunteerism than men at colleges and universities, especially as it relates to philanthropy (Shaw & Taylor, 1995). Additional research has also shown that females will more often make a gift than males, but when males give, their gift tends to be larger (Hueston, 1992).
- *Age.* Past research has shown that when asking for a financial gift, younger alumni may not feel that they have the disposable income, where as an older alumnus is often considered by the institution to be more financially stable and therefore, older alumni tend to give more than younger alumni (Haddad, 1986; Korvas, 1984; Miracle, 1977). Studies by McKee (1995) and McNally (1985), however, showed that both the youngest and oldest alumni are less likely to provide support. In 2004, the Bureau of Labor Statistics reported that individuals between the ages of 35-44 are most likely to support an organization, while individuals in their twenties and individuals over the age of 65 are least likely to support an organization.
- *School of Graduation.* According to published reports, each school within an institution develops its students differently creating various levels of affinity to the program and university once a student has left campus (Hoyt, 2004; Umbach & Porter, 2002).

- *Location of Residence.* As shown in recent studies, the closer an alumnus is physically located to the institution the easier it is for him or her to participate in activities centered around the institution (Mosser, 1993; Weerts & Ronca, 2007; Weerts & Ronca, 2009). However, an alumnus who is physically distant from an institution may find a valuable connection for staying abreast with current developments of the institution (Levine, 2008; Pearson, 1999).
- *Years of Membership.* Once an alumnus chooses to join an alumni association and experiences the benefits that this membership provides, he or she may grow accustomed to the value of membership. This affiliation may result in a relationship that inspires giving (Toker & Kankotan, 2009).
- *Number of Degrees Received from the Institution.* The more time that alumni spend at an institution and the better quality education that they feel they have received, one would assume the greater the affinity or loyalty would be for his or her alma mater, encouraging one to stay connected and provide continued support (Hoyt, 2004).

Researchers have suggested that the combination of these variables can provide an overall picture of how these factors influence alumni capacity and motivation to provide support (Weerts & Ronca, 2007). Although capacity is not addressed in this study, it must be mentioned in assessing the impact of demographic variables. The capacity of an alumnus to make a gift is primarily determined by the availability of financial resources. Other economic variables that have been used to predict capacity include the following: (a) family income, (b) career and education history, (c) current job duties and responsibilities, and (d) spouse's career and educational history (Connolly & Blanchette, 1986; Hueston, 1992; Pendel, 1985). Finally,

capacity may be influenced by other charities, areas of interest, and any significant event that has taken place in an individual's life (Weerts & Ronca, 2009).

Summary

There is no simple formula for identifying alumni who are the best prospects for making financial gifts to an institution. However, research has demonstrated that the basis for identifying potential alumni givers may begin with determining the amount of loyalty that he or she holds for his or her alma mater (Hoyt, 2004; Mosser, 1993; Volkwein, 1989). If a strong relationship is not developed and fostered as a student or shortly after graduation, research has indicated the decreased likelihood for that individual to become a reliable alumni donor (Boyle 1990; Korvas, 1984). Before an institution invests significant funds in cultivating prospects, it is recommended that the institution first determine the strength of loyalty and affinity that alumni have for the institution. The development of an alumni loyalty scale has the potential to provide an institution with a method for scientifically quantifying this variable within a strong theoretical framework. Further, an instrument for assessing alumni loyalty may allow for a greater return on investment and increased alumni support at all levels.

CHAPTER 3

RESEARCH DESIGN

Introduction

The purpose of this study was to identify the psychometric properties of an instrument intended to assist institutions with determining the level of loyalty that undergraduate alumni have toward their alma mater. Although there may be multiple uses for this instrument within higher education settings, the initial purpose was to better understand the underlying concept of “alumni loyalty” and to create a valid instrument that will provide guidance for improved strategic planning efforts. It will allow an institution to assess the strength of loyalty and affinity that an individual has for the institution before investing significant funds in cultivating prospects. A quantitative approach, with some qualitative techniques, was used to develop the instrument and analyze the results to identify those characteristics that are most important in developing and maintaining loyalty among graduates.

Research Questions

The study used the following questions as the basis for instrument development, pilot testing, and establishment of a valid and reliable tool for determining an alumnus’ sense of loyalty to their undergraduate alma mater:

- 1) How is the construct of alumni loyalty best described and measured?
 - a. What factors make up the construct of loyalty?

- b. What items best measure the factors identified to explain loyalty?
- 2) What are the psychometric properties of the Alumni Loyalty Scale?
- a. What is the estimated level of content validity of the Alumni Loyalty Scale?
 - b. What is the estimated level of construct validity of the Alumni Loyalty Scale?
 - c. What is the estimated level of reliability of the Alumni Loyalty Scale?

Instrument Development

Factor Identification

The first step in the instrument development process had two primary objectives: (a) to determine the factors that most effectively explain the construct of alumni loyalty and (b) to develop items based on these factors to include in the instrument that allow measurement of this construct. Identifying the primary factors was one of the most critical steps throughout the development process, providing a thorough understanding of the latent variable, loyalty, being measured and the foundation for the direction of the instrument (DeVellis, 2003). Two primary methods were used for this process; 1) a review of the literature and 2) the use of subject matter experts.

First, an extensive literature review was conducted to provide a theoretically sound basis for identification of factors that influence an alumnus' sense of loyalty to his or her undergraduate alma mater. The theoretical framework surrounding the construct of loyalty served as the basis for initial item development to be included in the instrument. Although Mann's (2007) model for donor motives helps us understand the many theories that play a part in determining if an alumnus will be a financial donor, there are two that serve as the primary basis for creating and sustaining loyalty among an institution's graduates: 1) organizational

identification theory and 2) social identification theory. Organizational identification theory, derived from social identification theory, is the sense of oneness or perception of unity that an individual feels with an organization or entity (Ashforth & Mael, 1989; Boros, 2008). Social identification theory is an individual having the knowledge that he or she is part of a group that shares common identification and categorizes themselves as one based on these group or categorical characteristics (Hogg and Abrams, 1988; (Ashforth & Mael, 1989; Stets & Burke, 2000). These two theories, coupled with charitable giving theory, help us better understand the concept of loyalty and determine the underlying constructs that explain this attitude.

Next, an open ended questionnaire was developed and distributed to a sample of nine content experts across multiple, four-year, degree granting, public institutions representing a wide array of Carnegie classifications with expertise in the area of institutional advancement. Experts provided a diverse perspective of the construct of loyalty based on personal knowledge while allowing the researcher to identify common themes that are consistent throughout all of the responses in order to support item development (Grant & Davis, 1997). These experts were asked to share their knowledge on the concept of loyalty, what creates loyalty among current students and alumni, how this loyalty is best maintained, and the importance that this loyalty has on an institution. Appendix C includes the questionnaire that was used in directing the collection of this information.

The professionals included represent a wide range of institutional types and are considered experts in their fields based on the following criteria. He or she (a) has obtained an advanced degree related to higher education, marketing, business, or leadership, (b) has 10+ years experience in both alumni relations and higher education fundraising, (c) has a proven track record of success in alumni relations and higher education fundraising, with success measured by

growth percentages in alumni participation through various levels of support, and (d) has a willingness to dedicate the time necessary to provide feedback on the items presented.

With the information collected from each of the experts combined with a basis in the literature, a thematic analysis was used to complete the factor identification. This analysis combined components that alone offer little explanation or measure of loyalty but together provide meaningful insight to the underlying construct (Aronson, 1994). The researcher took precautions in this step of instrument development to ensure that personal bias was minimized and did not excessively influence the identification of contributing factors. While some researcher bias is inevitable, the preconceived ideas of what the study will show can unduly influence the thematic analysis and skew the interpretations (Mehra, 2002). To minimize this bias, an expert in qualitative research was used to review the collected information and validate the identified themes and resulting factors.

Item Development

Based on the factors identified in the previous step, the items measuring each factor were constructed to provide further insight into the individual factor to be explained. This is often one of the most challenging aspects of instrument development and must be navigated carefully. Each item was designed to measure only one factor and can be thought of as an independent test (DeVellis, 2003; Fowler, 2009). Item characteristics that were taken into account for item development included the length of the item, the ease of understanding for the intended audience, the positive or negative influence that the wording of the item may have on the respondent, and the social desirability that the question may imply about a respondent (DeVellis, 2003; Fowler, 2009). Taking each of these elements into consideration minimized the amount of bias that

influences the respondent and decrease the response error that must be accounted for in the analysis of the instrument (Dillman, Smyth, & Christian, 2009).

Response Method

Once the items were created, an appropriate measurement or response method was determined for each set of items. Based on item response theory each item should be designed to evaluate different levels or degrees of the factor being measured by summing the items responses with specific, demonstrable characteristics (DeVellis, 2003). Therefore, in measuring a construct that is primarily attitudinal, such as loyalty, the most appropriate response method was the Likert type scale with six degrees to measure the strength of the response. The selection of the six option method was chosen with the intent to provide a large enough range to describe the strength of loyalty, but few enough options that the researcher can get a precise understanding and discriminate the responses meaningfully (DeVellis, 2003). Since respondents typically avoid the extreme positions, having four middle options without the ability to take a neutral stance, the optimal number for this study was six (Bandura 2001; Pajares, Hartley & Valiente, 2001). Using a smaller or larger number of response options would not allow the desired preciseness anticipated with the development of the instrument. Therefore, for the Alumni Loyalty Scale, the responses were confined to a six point scale that included strongly agree, agree, somewhat agree, somewhat disagree, disagree, and strongly disagree. This format eliminated the neutral response and requires the respondent to make either a positive or negative commitment and value the strength of that commitment (DeVellis, 2003).

Estimating Validity and Reliability

Estimating validity and reliability is critical with the creation of a new instrument and provides proof to potential users that the instrument is sound for use in evaluating the desired construct. Validity is the extent to which an instrument measures what it is intended to measure accurately and adequately (Carmines & Zeller, 1979; DeVellis, 1991; Golafshani, 2003). Reliability is the extent to which the results of the instrument are consistent over time and that the instrument results can be replicated when using a similar methodology (DeVellis, 2003; Golafshani, 2003). Both provide a level of confidence for users to justify the use of the instrument. In order to estimate the validity and reliability of this instrument the researcher employed several methods including additional expert review with consideration of the content validity ratio, an exploratory factor analysis and a review of the instrument's internal consistency using Cronbach's Alpha throughout various stages of the study.

Content Validity

Content validity analysis ensures that the items included in an instrument are selected to adequately cover all possible areas of measuring the content domain. The panel of expert reviewers paired with the theoretical framework to support this construct and the use of the extensive research that has been conducted in studying alumni giving behavior will provide additional sources for content validity (DeVellis, 2003; Orcher, 2007). This type of validity is often easy to establish with a very definite domain, but can prove to be more difficult with instruments that measure beliefs, attitudes or dispositions as this one does (DeVellis, 2003).

Upon completion of this stage of the instrument development, the expert panel was asked to review the instrument and provide general feedback that included comments on the ease of

responding to the instrument, the clarity of directions provided, addition or deletion of any items, and any other suggested changes and feedback as to the usefulness of each item in measuring the underlying construct (McKenzie, Wood, Kotecki, Clark, & Brey, 1999). Each panelist received a cover letter, directions, and a copy of the instrument with the response mechanism included. Each item included a three-point scale that measured the necessity of the item. The scale included: (a) necessary; (b) useful; and (c) not necessary. As suggested by Venezanio and Hooper (1997), this scale was selected based on the Lawshe's (1975) three categories due to the potential of revisiting items that were marked by the experts as useful, but not necessary to the instrument for future inclusion as the validation process continues. A content-validity ratio (CVR) was calculated to develop a score for each item and then was evaluated to estimate content validity. Based on the Lawshe's established minimum CVR, any item receiving less than a .78 will be eliminated from the instrument (Lawshe, 1975; Johnston & Wilkinson, 2009). However, for those falling below this point Lawshe (1975) suggest taking those items that have more than 50 percent of panelists considering essential and retaining for further analysis since these items will have some degree of content validity. Additional suggested improvements were taken into account and necessary revisions were made to the instrument (Creswell, 2005).

Construct Validity

Construct Validity according to Orcher (2007) is the "extent to which an instrument yields scores that are consistent with what is known about the construct that the instrument is designed to measure" (pp. 131). Construct validity is estimated based on the way that the scale items were created, their ability to make specific predictions, or its ability to relate various constructs (DeVellis, 2003). This type of validity is useful in measuring a particular

characteristic related to the construct (Orcher, 2007). For this instrument, the general construct being measured is loyalty. Although loyalty is made up of many variables, the exploratory factor analysis performed on the results of the pilot study allowed the research to realize that this construct is adequately measured and provides relevant information that will better explain what drives alumni loyalty.

Pilot Study. The pilot study was conducted by obtaining responses to the instrument from a randomly selected sample of alumni from a public, four-year research institution with almost 110,000 graduates. Although the graduate pool is large, the available population is somewhat decreased due to the chosen method of electronic distribution for the pilot study. The sample included graduates ranging from 1970 until 2011, but was limited to those that have received an undergraduate degree from the institution. This decision was made to limit the scope of this study due to anticipated differences in determining loyalty to an institution from which someone received a graduate or professional degree. For this study, simple random sampling provided the greatest opportunity for testing the instrument across a diverse population of an institution's graduates with little opportunity for researcher or respondent bias (Fowler, 2009). A minimum sample size of a 10:1 item ratio or 350 responses was necessary to allow for adequate analysis (Costello & Osborne, 2005; Osborne & Costello, 2004). The instrument was distributed to possible respondents via email with an introduction that explains the purpose of the study, the need for the respondent's participation, the implied consent that is provided with submission of the completed instrument, and general information about the study procedures. Each respondent was asked to return the completed instrument within four weeks. Reminder emails were

distributed to potential respondents on a weekly basis to remind the recipient of the request for participation.

Exploratory Factor Analysis. Using exploratory factor analysis (EFA) allows the researcher to identify and explain the gathered data by grouping together the variables that most adequately explain each factor and eliminate those that have no role in better understanding the underlying construct. For the purpose of this study, the researcher used EFA and left the confirmatory factor analysis for future research outside the scope of this dissertation (Mertler & Vannatta, 2002; Spicer, 2005). Additionally, the researcher strived to achieve a subject-item ratio of 10:1 with the expectation that a minimum of 350 responses would be received (Fowler, 2009; Nunnally, 1978; Nunnally & Bernstein, 1994). This ratio and minimum response expectation were based on a 31 item instrument that allowed the researcher to collect an adequate amount of information to measure the construct, but maintain a length that would not be a deterrent to those that are asked to complete it (Dillman, Smyth, & Christian, 2009; Fowler, 2009). Additionally, with no firm standard to base this on, this level of response met the range of opinions as to the adequate sample size whether based on subject-item ration or general sample size (Osborne & Costello, 2004). This provided for a 95 percent confidence interval and allowed the researcher to identify those measures with a high coefficient alpha that indicates the necessary content homogeneity and identify which items have the most, little or no effect on determining an individual's loyalty to an institution (Nunnally & Bernstein, 1994).

In conducting the EFA, the researchers used a maximum likelihood extraction method with varimax rotation. Due to the expectation of a large number of factors that would have a role in explaining the construct of alumni loyalty; this method provided the parameters where the

values are most probable given the data collected and the assumptions being used in the analysis (Nunnally & Bernstein, 1994; Tabachnick & Fidell, 1983). This method was chosen over principal component analysis because the purpose of the instrument is to identify those factors that are most useful and efficient in explaining alumni loyalty and eliminate those that are irrelevant allowing for a more clear and concise instrument. Additionally, based on the nature of the underlying construct being measured, there was strong suspicion that the factors derived will have some level of correlation between them indicating the best rotation method to be an oblique rotation (Costello & Osborne, 2005). However, in this case, the researcher used orthogonal rotation to force the factors to be uncorrelated and produce a cleaner structure for analysis. Varimax rotation allows for maximizing the variance on the actual factors rather than on the individual variables and minimize the complexity of each of the factors (Tabachnick & Fidell, 1983; Kim & Mueller, 1978).

There are both advantages and limitations to using orthogonal rotation. The primary advantage is that the factors continue to be uncorrelated and provide an easier method of interpretation and allow for greater replicability (Kieffer, 1998; Costello & Osborne, 2005). In this case this was important considering that the final instrument may be used at various institutions with considerably different histories and profiles that must be considered in identifying strength of loyalty. There are also some limitations. Using orthogonal rotation in this case may cause the interpreted results not to provide the exact same view that the researcher believes to be reality. In the social sciences it is often difficult to find retained factors that have zero correlation resulting in somewhat of a more simplified representation of the actual relationship (Gorsuch, 1983; Kieffer, 1998; Costello & Osborne, 2005). However, with these considerations in mind, the research feels that this rotation allowed for the best explanation of

each factor by describing the variables that make up the factor with regards to their strength and direction (Mertler & Vannatta, 2002). Additionally, the researcher could further examine those factors that didn't load as expected and looked for alternatives to enhance certain areas of the instrument.

The factors that have the greatest explanatory power were identified by following Kaiser's rule, observing the generated scree plot, and analysis of the variances and residuals generated (Mertler & Vannatta, 2002). Kaiser's rule basis inclusion on the eigenvalues for each factor. The eigenvalue is the amount of total variance that can be explained by a particular factor. A factor must have an eigenvalue of 1.0 or greater in order to be retained in the matrix (Mertler & Vannatta, 2002; Tabachnick & Fidell, 2007). The scree plot is a graphic visualization that show the magnitude of each eigenvalue against the others. The smallest change in the dip of the line indicates the recommended number of factors for inclusion (Mertler & Vannatta, 2002). Further, as part of using the simple solution, examination of the factor loading on the rotated factor matrix and the communalities of each item assisted in determining inclusion in the final version of the scale. A cut point of .32 was used to determine factor loading and a cut point of .4 was used as a minimum communality value for inclusion (Tabachnick & Fidell, 2007). A .32 factor loading demonstrates that 10 percent of the overlapping variance is explained by the item and is considered acceptable yet poor (Comrey & Lee, 1992). However, final decision on item inclusion was left to researcher preference based on personal interpretation supported by the previous research presented in the professional literature and content expert responses (Tabachnick & Fidell, 2007).

Reliability

Reliability is fundamentally important when establishing a new instrument in order to improve statistical power (DeVellis, 2003). Reliability is defined by DeVellis (2003) as, “the proportion of variance attributable to the true score of the latent variable.” (pg. 27). One method for determining reliability is to examine the internal consistency that exists within the instrument. Internal consistency is primarily concerned with the homogeneity of the items within the scale and the ability of the instrument to measure a single construct (DeVellis, 2003). Internal consistency is typically equated with Cronbach’s Alpha or the coefficient alpha. The minimum acceptable level for Cronbach’s coefficient alpha is greater than or equal to .70. Any subscales of the instrument with a .70 or greater were retained and analyzed. Any subscales that fell below this point were evaluated individually to determine whether they should be retained or removed from the final instrument (Nunnally & Bernstein, 1994).

Summary

The purpose of designing this new instrument was to provide a theoretically sound method for understanding the concept of “alumni loyalty” and develop a tool that would provide guidance for improving an institutions strategic planning efforts. A quantitative approach was used along with some qualitative techniques to create the instrument and analyze the results to identify the most important factors in developing an maintaining loyalty among an institutions graduates.

An extensive reivew of the professional literature was performed along with the participation of a panel of content experts that could provide extensive insight on the construct of loyalty based on actual experience and long-term observations. With this information, the

contributing factors were determined, appropriate items developed, and evaluated before distributing for pilot study. The pilot study was conducted using a single institution's undergraduate population as potential respondents. An exploratory factor analysis was performed on the responses using a maximum likelihood extraction method and varimax orthogonal rotation.

Additionally, an important element of new instrument design is to estimate both validity and reliability of the instrument. Both construct and content validity were a primary focus using a basis in professional literature. Further, responses from the content expert panel provided a content validity ratio on each item that was evaluated for item inclusion. The reliability was estimated using Cronbach's coefficient alpha to determine internal consistency of each of the individual subscales and the full Alumni Loyalty Scale. Using these techniques provided evidence that the Alumni Loyalty Scale measured what it was intended to measure and provided useful insight into the underlying construct being investigated - loyalty.

CHAPTER 4

RESULTS

Chapter four provides the results of the development and validation process used to create the Alumni Loyalty Scale. Initial steps provided a theoretically sound basis for measuring the psychometric properties of this new instrument. As was previously described in chapter three, the researcher used a four part process that included initial instrument development, expert content review, pilot testing, and the estimation of validity and reliability of the instrument. Each part of the process is described in the following sections with the last section presenting the final instrument design.

Content Expert Panel

The researcher solicited the participation of nine content experts to assist with two sections of the instrument design process. The group was made up of five male and 4 female advancement professionals with demonstrated success in the areas of alumni, development, and external relations. The experience levels for each individual ranged from 10 to 28 years. Each individual received the initial questionnaire on July 18, 2011, via email with an introduction letter explaining the research, the amount of time that would be required for participation, UAB IRB protocol number, and a request to return the attached questionnaire within four weeks of receipt (See Appendix C).

The responses received from the initial questionnaire provided evidence to support the relevant factors, as demonstrated by the literature review, to contribute to the underlying construct being measured. Based on the information provided the initial setup of the instrument was created (see Appendix D) and redistributed to the same group of content experts for general feedback that included comments on the ease of responding to the instrument, the clarity of directions provided, addition or deletion of any items, and any other suggested changes and feedback as to the usefulness of each item in measuring the underlying factor (McKenzie, Wood, Kotecki, Clark, & Brey, 1999).

In the final expert review, each item included a three-point scale that measured the necessity of the item. The scale included: (a) necessary; (b) useful; and (c) not necessary. Using this response mechanism a content-validity ratio (CVR) was calculated to develop a score for each item and then was evaluated to estimate content validity with a cut value of less than .78 when nine content experts had participated (Lawshe, 1975). CVR was calculated based on the number of experts to respond to the item using the following formula:

$$CVR = \frac{(n_e - N/2)}{N/2}$$

Where, CVR = content validity ratio; n_e = number of experts considering the item essential; and N = total number of experts responding. CVR ranged from .11 to 1 on all items with five of the items falling below .78. Based on Lawshe's (1975) recommendation these items were reviewed to determine the number of experts that considered the item to be essential. In four of the five, five or more experts considered the items to be essential and one item had only four experts that considered it to be essential and therefore was eliminated. Tables 4.1 through 4.4 provide the CVR for each item in the Alumni Loyalty Scale that was distributed for expert review.

Table 4.1

Student Experience Items - Content Validity Ratio

Original Item	CVR	Essential n	Useful n	Not Essential n
My family played a substantial role in selecting my undergraduate alma mater.	.78	8	0	1
My experience as an undergraduate student met my expectations.	.78	8	0	1
I often participated in extracurricular activities outside the classroom while I was a student.	1	9	0	0
Intercollegiate athletics played a significant role at my undergraduate alma mater for me personally.	.78	8	1	0
I enjoyed my time as an undergraduate student.	.56	7	1	1
The faculty and staff cared about my success.	1	9	0	0
Problems I encountered throughout the education process were adequately addressed by the institution	1	9	0	0
The activities and services I needed as a student were available to me through the institution.	1	9	0	0
I completed my degree within the time frame that I anticipated.	.56	7	2	0
My undergraduate alma mater provided me with a quality education.	1	9	0	0
The institution prepared me to find a job after graduation.	1	9	0	0

Note. Items falling below a CVR of .78 are in boldface.

Two items in the subscale Student Experience did not meet the minimum cut point of .78, each carrying a .56 CVR. In reviewing responses from the expert panel, in both cases more than five of the experts considered the item to be essential. Further, based on the models presented in the theoretical framework these items were both written to assist in measuring student

satisfaction which is a key component of student experience. Therefore, these two items were retained for further evaluation.

Table 4.2

Alumni Experience Items - Content Validity Ratio

Original Item	CVR	Essential	Useful	Not
		n	n	Essential n
The courses that I took prepared me for success after graduation.	.33*	4	1	1
My undergraduate education is what got me where I am today.	.78	8	0	1
Working in the field in which I graduated is important to me.	.78	8	1	0
The institution provided adequate assistance to me in finding a job after graduation.	.78	8	1	0
I am satisfied with where I am professionally.	.11	5	4	0
My undergraduate degree prepared me for success.	.43	5	1	1
I feel a sense of loyalty to my undergraduate alma mater.	1	9	0	0
Supporting my undergraduate alma mater financially is important to me.	.78	8	1	0
Supporting my undergraduate alma mater by volunteering my time is important to me.	.78	8	1	0
I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	.78	8	1	0
I can have a role in providing support to current students at my undergraduate alma mater.	.78	8	0	1

*Note. Items falling below a CVR of .78 are in boldface. * indicates that the item was removed from the subscale.*

Three items in Alumni Experience subscale did not meet the minimum cut point of .78 for inclusion in the Alumni Loyalty Scale. These items carried a CVR of .33, .11, and .43 respectively. In the first item only four experts considered the item to be essential. Therefore, the item was eliminated from the scale. The following two items had five experts considering the item to be essential. Based on information in the professional literature, these items were designed to measure professional satisfaction that was previously identified as a means for maintaining loyalty to an institution by reinforcing the quality of the degree received from the institution. Both of these items were retained for further evaluation.

Table 4.3

Staying Connected - Content Validity Ratio

Original Item	CVR	Essential	Useful	Not
		n	n	Essential n
I feel like my undergraduate alma mater cares about me.	.78	8	1	0
Constant communication from my alma mater is important to me.	1	8	0	0
I still want to feel like I am part of my undergraduate alma mater.	.78	8	1	0
My institution does a good job in keeping me connected to what is going on around campus.	.78	8	1	0
<u>I still feel like I am part of the institution.</u>	<u>.78</u>	<u>8</u>	<u>1</u>	<u>0</u>

Table 4.4

Institutional Reputation Items - Content Validity Ratio

Original Item	CVR	Essential n	Useful n	Not Essential n
The public reputation of the institution is important to me.	1	9	0	0
My undergraduate alma mater has a good reputation within the local community.	.78	8	0	1
My undergraduate alma mater has a good reputation nationally.	.78	8	0	1
The reputation of the institution affects the perceived quality of my degree.	1	9	0	0
Reputation was an important factor in selecting an undergraduate institution.	.78	8	1	0

Staying Connected and Institutional Reputation maintained a CVR of .78 or greater on each item within the subscale. Further, based on this feedback, no items were removed, but some minor word changes were made to eliminate redundancy and provide clarity. With a strong estimate of content validity, a 31-item instrument would be used for pilot testing (see Appendix E).

Data Collection Method

As described in chapter three, the researcher conducted a pilot study using a public, four-year institution with approximately 110,000 graduates targeting only those that had received an undergraduate degree from the institution. The instrument was distributed electronically through a survey administration site, www.surveygizmo.com, limiting the number of recipients to only

those with a functioning email address on file with the institution. On November 22, 2011, 14,903 emails were sent to potential respondents located around the world. See Appendix F for the email that was received by potential respondents.

The initial email received 348 individual responses. Two additional reminder emails were sent on November 29, 2011 and December 6, 2011, to an amended list that removed those that had already participated. These reminders yielded 441 and 240 responses respectively for a total sample size of 1,029.

An initial concern in the collection of data was that the participants' responses may be skewed if the instrument was administered in sections as written in the paper version of the instrument. If the respondent is forced to focus on one area for an extended period of time, the responses may recall memories that influence responses more strongly in a positive or negative direction. Therefore, to help eliminate this type of response bias, the instrument was set up to randomize the order the items were presented. Likely, few respondents received the questions in the same order and the items were randomly drawn from the pool of items within each subscale.

Sample Distribution

A random sample was collected that included 1,029 responses from individuals that had received an undergraduate degree from the selected institution. Table 4.5 provides the demographic characteristics of the respondents. Slightly more females (56.7%) than males (43.3%) responded. Respondents were geographically dispersed with the largest percentage (77.7%) residing in the southern region of the United States. Graduates living in nine different

countries were represented. Graduation dates ranged from 1970 through 2011 with 56.6% of respondents graduating between 2000 and 2011. Data on age and ethnicity was not collected.

While attending the institution, 45.4% received financial aid from the institution while 38.6% received scholarships and grants from the institution. Seventeen percent had obtained more than one degree from the institution and 9.9% were legacies, meaning that the respondent's parents or grandparents had also attended the institution. Additional data collected to help better analyze the group of respondents showed that 51.8% currently work in the field in which he or she received a degree, 40.5% are members of the institutions alumni association, and 38.3% have given back financially to the institution within the last 24 months.

Based on available data three variables could be used to test the ability of the sample to adequately represent the general population. Those variables included gender, region where alumni currently resides, and graduation date in which the individual received his or her undergraduate degree. The region in which the alumnus currently resides did not meet the basic assumption that a category must have an expected frequency greater than five in order to calculate the chi-squared statistic. Therefore, the researcher decided to remove the two categories that fell below this parameter, international and undisclosed, to evaluate the ability of the sample to represent the population.

The chi-square statistic for gender was .001 with 1 degree of freedom and an asymptotic significance value of .971 indicating that the sample is not significantly different from the population. Therefore, indicating that the sample acquired through this process does adequately represent the general population, producing almost an exact duplication of the population gender mix. Additionally, the researcher was able to run a chi-square statistic based on the graduation date of the individuals. With a chi-square value of 12.25 with 3 degrees of freedom and an

asymptotic significance value of .007 indicating that there is a significant difference between the sample acquired and the general population that received the opportunity to respond to the pilot study. The difference can likely be explained by the means through which the pilot study instrument was distributed. In choosing to use an electronic version, potential respondents could only be contacted if an email address was available skewing respondents to the most recent graduates with 77.3 percent of respondents graduating between 1990 and 2011.

Finally, the chi-square statistic for the region in which the alumnus currently resides was 18.458 with 3 degrees of freedom and an asymptotic significance of .000 indicating that there is a significant difference between the sample acquired and the general population that responded to the study. The reason for this difference is not known at this point, but may be a cause for further investigation in determining strength of loyalty. In chapter 2, there is evidence that the distance an alumnus resides from the institution can have a significant impact on the strength of loyalty that is maintained for an institution. Those alumni that live a greater distance from the institution may have a more difficult time fostering the connection with the institution and remaining involved in activities or events that keep the alma mater at the forefront of the graduate's mind.

Data Examination

The data was carefully reviewed by the researcher to identify any missing data that required the record be removed or modified for analysis. With the administration method employed, where complete responses were necessary, the item was marked as required and the respondent was not permitted to move to the next group of questions until each item had a response. Table 4.6 shows the distribution of responses to each item.

In order to assure further accuracy of the data, descriptive statistics were reviewed to determine the normality of the distribution of each item and ensure that the data set being used was clean for proper analysis. Table 4.7 shows each item with the sample size, mean, standard deviation and skewness of the responses. The data showed a greater level of skewness on some items than anticipated, but not enough to cause concern about the data. Each item contained a five point range with a minimum of 1 and maximum of 6. Based on the use of 6-point Likert scale this provided the anticipated outcome to move forward with analysis.

Table 4.5

Demographic Characteristics of Pilot Study Respondents

Characteristics	n = 1, 029	Percent
Gender		
Female	583	56.7
Male	446	43.3
Date of Graduation		
1970-1979	82	8.0
1980-1989	150	14.7
1990-1999	212	20.7
2000-2011	579	56.6
Undisclosed	6	0.6
Number of Degrees Obtained		
One	802	77.9
More Than One - Same Institution	174	16.9
More Than One - Different Institutions	47	4.6
Geographic Distribution*		
Northeast	11	1.1
Midwest	27	2.6
South	800	77.7
West	21	2.0
International	11	1.1
Undisclosed	159	15.5
Received Financial Aid		
Yes	467	45.4
No	558	54.2
Don't Know	4	0.4
Received Scholarships and Grants		
Yes	397	38.6
No	630	61.2
Don't Know	2	0.2
Legacy to the Institution		
Yes	102	9.9
No	926	90.0
Don't Know	1	0.1
Currently Working in Field of Degree		
Yes	533	51.8
No	494	48.0
Don't Know	2	0.2
Member of Institutions Alumni Association		
Yes	417	40.5
No	568	55.2
Don't Know	44	4.3
Financially Contributed in Last 24 Months		
Yes	394	38.9
No	624	60.6
Don't Know	11	1.1

*Note. *Regions as defined by U.S. Census Bureau, except International, which represents respondents outside of the U.S.*

Table 4.6

Percentage of Responses from Random Sample for Pilot Study (n = 1,029)

Item	Strongly Agree	Agree	Somewhat Agree	Somewhat Disagree	Disagree	Strongly Disagree
1	9.2	12.4	21.9	13.2	25.9	17.4
2	17.3	42.9	27.0	7.5	4.0	1.4
3	22.7	19.7	20.0	12.5	16.6	8.4
4	11.6	8.9	12.4	13.8	22.8	30.4
5	31.3	41.8	21.0	3.8	1.7	0.4
6	22.3	36.3	27.3	7.7	4.1	2.3
7	11.3	37.8	32.5	10.4	4.7	3.4
8	15.7	40.8	29.6	9.5	2.7	1.6
9	29.8	36.6	14.9	8.6	6.6	3.5
10	33.3	48.1	14.2	2.8	1.3	0.3
11	13.1	26.5	26.3	13.6	11.3	9.1
12	17.7	26.4	27.9	12.5	9.7	5.7
13	17.3	37.1	28.8	8.5	5.1	3.3
14	18.1	28.4	29.1	8.7	8.9	6.8
15	32.3	27.1	20.6	9.9	7.1	3.0
16	5.4	13.7	21.6	18.3	24.3	16.7
17	25.5	34.6	18.1	7.8	8.0	6.4
18	23.3	31.1	26.0	8.5	7.4	3.7
19	8.8	18.4	29.2	19.4	14.3	9.9
20	7.6	13.7	32.6	22.2	15.9	8.1
21	13.0	25.0	30.6	13.9	9.7	7.7
22	14.3	25.6	32.0	13.4	9.7	5.1
23	7.4	20.1	35.1	18.5	10.7	8.3
24	9.0	22.0	30.3	19.0	12.2	7.4
25	19.9	29.4	30.1	9.7	8.0	2.9
26	16.3	30.3	31.6	12.0	6.5	3.3
27	34.8	41.7	17.9	2.7	2.0	0.9
28	36.8	45.3	14.0	2.6	0.9	0.4
29	34.9	39.6	20.8	3.6	0.8	0.4
30	36.7	37.6	19.0	3.3	2.5	0.9
31	15.5	29.9	28.9	12.4	9.5	3.8

Table 4.7

Basic Descriptive Statistics of the Pilot Study Responses on the Initial 31-Item Alumni Loyalty Scale (n = 1,029)

Subscale	Item	Mean	SD	Skewness
Student Experience	1	3.86	1.576	-0.265
Student Experience	2	2.42	1.069	0.925
Student Experience	3	3.06	1.627	0.290
Student Experience	4	4.19	1.713	-0.588
Student Experience	5	2.04	0.945	0.965
Student Experience	6	2.42	1.170	0.916
Student Experience	7	2.70	1.155	0.885
Student Experience	8	2.47	1.051	0.825
Student Experience	9	2.36	1.348	1.047
Student Experience	10	1.91	0.861	1.181
Student Experience	11	3.93	1.468	-0.223
Student Experience	12	2.65	1.285	0.662
Alumni Perspectives	13	2.57	1.209	0.909
Alumni Perspectives	14	2.83	1.427	0.685
Alumni Perspectives	15	2.41	1.369	0.826
Alumni Perspectives	16	3.11	1.480	0.485
Alumni Perspectives	17	2.57	1.468	0.922
Alumni Perspectives	18	2.57	1.330	0.802
Alumni Perspectives	19	3.42	1.422	0.182
Alumni Perspectives	20	3.49	1.335	0.072
Alumni Perspectives	21	3.05	1.411	0.493
Alumni Perspectives	22	2.94	1.343	0.501
Staying Connected	23	3.30	1.329	0.375
Staying Connected	24	3.26	1.365	0.305
Staying Connected	25	2.87	1.410	0.546
Staying Connected	26	2.72	1.248	0.647
Institution Reputation	27	1.98	0.980	1.293
Institution Reputation	28	1.87	0.858	1.213
Institution Reputation	29	1.97	0.913	0.898
Institution Reputation	30	2.00	1.028	1.227
Institution Reputation	31	2.82	1.317	0.577

Data Analysis and Results

The initial goal of the pilot test was to collect a minimum of 350 responses to satisfy the range of opinions in the research determining the appropriate subject-item ratio and the general sample size. The response of 1,029 greatly exceeded this expectation and provided extremely high subject-item ratio, greater than 30:1, which increases the strength of the analysis by decreasing the opportunity for error of inference (Osborne & Costello, 2004). Additionally, this number of responses provided the researcher a more in-depth look at the psychometric properties of the instrument.

Statistical Analysis

The data was compiled and exported from the survey software and uploaded into Statistical Package for the Social Sciences version 17.0. An exploratory factor analysis was performed using maximum likelihood extraction with the varimax orthogonal rotation. The number of factors to be extracted and retained was determined based on Kaiser's rule of thumb that includes all factors with an eigenvalue greater than one and a visual observation of the scree plot. Factor loadings greater than .3 were considered acceptable but would be further evaluated for inclusion in the final subscales (Tabachnick & Fidell, 1983).

Initial Rotation. Using maximum likelihood extraction with varimax rotation an analysis was run to analyze the Alumni Loyalty Scale. In order to assess the adequacy of the sample, the researcher examined the Kaiser-Meyer-Olkin (.958) and Bartlett's Test of Sphericity ($\chi^2 = 17,773.24, p=.000$). With a Kaiser-Meyer-Olkin (KMO) close to one and a rejection of the null

hypothesis using Bartlett's test it is confirmed that that the correlation matrix is not an identity matrix and the data is sufficient for the factor analysis to be conducted.

The initial rotation presented a 5 factor solution with 59.3% of the variance being explained. Each eigenvalue was greater than 1, but examination of the scree plot indicated heavy loading on the first factor with only 18.47% explained in the later 4 factors (Table 4.8). Further examination of the rotated matrix indicates that items 1, 9, and 15 don't load onto any of the identified factors with a .32 minimum factor loading (Table 4.9). Examination of the communalities for each item indicated that an additional four items should be eliminated based on the cut rate of .4 (Tabachnick & Fidell, 1983). This included items 3, 4, 17, and 28 (see Table 4.10). The researcher decided to retain item 29 since the extracted communality was right on the cutoff at .399 and the simple solution indicated that it should remain. These items were removed from the factor analysis and the extraction and rotation process was repeated.

Table 4.8

Total Variance Explained by the Initial Five Factor Solution of the Alumni Loyalty Scale

Factor	<u>Initial Eigenvalues</u>			<u>Extracted Sums of Squared Loadings</u>		
	Total	% of Variance	Cummulative %	Total	% of Variance	Cummulative %
1	12.647	40.795	40.795	12.190	39.323	43.800
2	1.835	5.920	46.716	1.388	4.477	50.614
3	1.469	4.740	51.456	.904	2.915	46.715
4	1.300	4.193	55.649	.761	2.455	49.170
5	1.120	3.612	59.261	.584	1.885	51.055

Table 4.9

Factor Loadings from the Initial Rotated Factor Matrix for the Alumni Loyalty Scale: Maximum Likelihood Extraction with Varimax Rotation

Item	Factor				
	1	2	3	4	5
24	.771	.178	.126	.287	*
19	.743	.277	.188	.208	.213
20	.740	.231	.175	.231	.104
12	.639	.136	.199	.282	.306
18	.619	.186	.338	.269	.303
21	.560	.322	.267	.217	.358
4	.518	*	.183	.107	.102
23	.506	.312	.241	.173	.505
22	.487	.210	.176	.312	.230
3	.378	*	.356	*	*
1	.219	*	*	.149	.117
13	.262	.692	.339	.295	*
16	.167	.672	.189	.186	.363
14	.263	.624	.211	.256	.164
17	*	.477	.241	*	.124
11	.211	.457	.103	*	.453
15	.107	.276	*	.263	*
5	.355	.135	.668	.186	.145
2	.244	.319	.634	.199	.261
8	.223	.308	.509	.224	.291
10	.188	.347	.488	.408	.137
7	.198	.266	.412	.147	.407
9	*	.273	.315	*	*
27	.272	.129	.138	.636	.126
30	.183	*	*	.603	.110
31	.263	.186	.170	.576	.121
29	.173	.143	.303	.485	.145
28	.182	.133	.352	.382	.126
25	.445	.175	.196	.289	.541
26	.259	.165	.147	.290	.499
6	.233	.354	.396	.104	.404

Note. * Denotes a factor loading of less than .1. Factor loadings greater than .32 are in boldface.

Table 4.10

Communalities from the Initial Factor Extraction for the Alumni Loyalty Scale: Maximum Likelihood Extraction with Varimax Rotation

Item	Initial	Extraction
15	.204	.162
12	.636	.640
6	.506	.511
1	.175	.094
29	.427	.399
21	.667	.633
26	.432	.449
11	.496	.478
7	.469	.467
30	.374	.425
5	.578	.646
17	.333	.313
2	.614	.671
10	.555	.579
14	.565	.596
25	.626	.642
31	.445	.480
27	.490	.530
3	.376	.275
22	.483	.462
16	.596	.624
19	.721	.752
20	.662	.696
23	.670	.696
9	.212	.186
4	.393	.329
8	.545	.538
18	.695	.697
28	.375	.337
24	.673	.734
13	.667	.757

Note. Communalities greater than .4 are in boldface.

Final Rotation. After removing the seven items (1, 3, 4, 9, 15, 17, 28) the analysis was run again using maximum likelihood extraction with a varimax orthogonal rotation. Both the KMO (.960) and the Bartlett's Test of Sphericity ($\chi^2 = 15,645.62, p=.000$) were similar to the

initial rotation again indicating the adequacy of the sample and the rejection of Bartlett's null hypothesis confirming that the correlation matrix is not an identity matrix.

The final rotation presented a three factor solution that explained 59.75% of the variance. Each had an eigenvalue of greater than one. A fourth factor had an eigenvalue equal to one, but with no items loading on the factor the final solution remained at three (Table 4.11). Each item loaded within the rotated factor structure. Several items had a weak double loading across factors which could be expected due to the nature of the underlying construct. The most significant double loading was observed within items 23 and 25 and required further analysis (Table 4.12). The researcher felt that it was important to retain these items due to information gathered through content expert review and factor placement was determined by the highest factor loading. Further examination of the communalities of each item indicated that three items did not meet the minimum .4 for inclusion. Items 11, 26, and 29 demonstrated commonality of .396, .342, and .356 respectively (Table 4.13). These items were also retained based on factor loadings and consideration of the simple solution.

Table 4.11

Total Variance Explained by the Final Three Factor Solution of the Alumni Loyalty Scale

Factor	<u>Initial Eigenvalues</u>			<u>Extracted Sums of Squared Loadings</u>		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.482	47.840	47.840	10.996	45.815	45.815
2	1.549	6.542	54.292	1.152	4.799	50.614
3	1.310	5.460	59.752	.833	3.472	54.086

Table 4.12

*Factor Loadings from the Final Rotated Factor Matrix for the Alumni Loyalty Scale:
Maximum Likelihood Extraction with Varimax Rotation*

Item	Factor		
	1	2	3
16	.665	.215	.189
2	.663	.256	.285
6	.655	.276	.116
13	.628	.270	.344
8	.622	.235	.272
7	.601	.248	.160
14	.575	.276	.275
11	.566	.264	*
10	.557	.192	.448
5	.508	.335	.285
26	.416	.346	.224
19	.341	.765	.230
24	.191	.761	.309
20	.259	.721	.271
12	.315	.674	.276
18	.423	.650	.288
21	.506	.608	.216
23	.560	.575	.144
25	.456	.525	.243
22	.309	.514	.319
27	.186	.281	.660
30	.136	.201	.594
31	.251	.265	.590
29	.324	.199	.460

Note. * Denotes a factor loading of less than .1. Factor loadings greater than .32 are in boldface.

Table 4.13

Communalities from the Final Factor Extraction for the Alumni Loyalty Scale: Maximum Likelihood Extraction with Varimax Rotation

Item	Initial	Extraction
12	.628	.630
6	.501	.519
29	.376	.356
21	.663	.673
26	.422	.342
11	.478	.396
7	.458	.449
30	.371	.411
5	.549	.452
2	.606	.587
10	.546	.548
14	.549	.483
25	.622	.542
31	.428	.481
27	.488	.550
22	.471	.461
16	.578	.524
19	.717	.754
20	.645	.659
23	.668	.665
8	.525	.516
18	.684	.684
24	.662	.712
13	.638	.586

Note. Communalities greater than .4 are in boldface.

Reliability

Each factor makes up individual subscales that measure the underlying construct of the Alumni Loyalty Scale. The total scale consists of 24 items broken down into three subscales or factors. Factor 1 (Student Experience) contains 11 items, Factor 2 (Alumni Perspectives) contains 9 items, and Factor 3 (Institutional Reputation) contains 4 items. The researcher analyzed each of the subscales independently and as a whole using internal consistency

measures. The minimum acceptable level for Cronbach's coefficient alpha is greater than or equal to .70.

Cronbach's Alpha for the 24-item Alumni Loyalty Scale is .951. This indicates a strong level of internal consistency throughout the instrument. Two of the three subscales, Factor 1 and Factor 2, have equally high alphas of .902 and .935 respectively. The third subscale, Factor 3, has a moderately high alpha of .754. The corrected item-total correlations for the full 24 item scale and each subscale was higher than .4. The internal consistency data for the final three factor solution and each of the three subscales is provided in Table 4.14, 4.15, 4.16, and 4.17).

Table 4.14

Examination of Internal Consistency to Estimate Reliability of the 24-Item Alumni Loyalty Scale

Item	Internal Consistency	
	Corrected item-total correlation	Alpha if item deleted
2 My experience as an undergraduate student met my expectations.	.690	.948
5 I enjoyed my time as an undergraduate student.	.636	.949
6 The faculty and staff cared about my success.	.631	.949
7 Problems I encountered throughout the education process were adequately addressed by the institution.	.601	.949
8 The activities and services I needed as a student were available to me through the institution.	.652	.949
10 My undergraduate alma mater provided me with a quality education.	.652	.949
11 The institution prepared me to find a job after graduation.	.561	.950
12 I still feel like I am part of the institution.	.722	.948
13 My undergraduate degree prepared me for success after graduation.	.708	.948
14 My undergraduate education is what got me where I am today.	.649	.949
16 The institution provided adequate assistance to me in finding a job after graduation.	.642	.949
18 I feel a sense of loyalty to my undergraduate alma mater.	.776	.947
19 Supporting my undergraduate alma mater financially is important to me.	.766	.947
20 Supporting my undergraduate alma mater by volunteering my time is important to me.	.706	.948
21 I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	.782	.947
22 I can have a role in providing support to current students at my undergraduate alma mater.	.645	.949
23 I feel like my undergraduate alma mater cares about me.	.771	.947
24 Constant communication from my alma mater is important to me.	.695	.948
25 I want to feel like I am still a part of my undergraduate alma mater.	.721	.948
26 My institution does a good job in keeping me connected to what is going on around campus.	.578	.950
27 The public reputation of the institution is important to me.	.561	.950
29 My undergraduate alma mater has a good reputation nationally.	.518	.950
30 The reputation of the institution affects the perceived quality and value of my degree.	.456	.951
31 Reputation was an important factor in selecting my undergraduate institution.	.564	.950

Note. Cronbach's Alpha for the Alumni Loyalty Scale is .951.

Table 4.15

Examination of Internal Consistency to Estimate Reliability of the 11-item subscale, Student Experience, within the Alumni Loyalty Scale

Item	Internal Consistency	
	Corrected item-total correlation	Alpha if item deleted
2 My experience as an undergraduate student met my expectations.	.715	.890
5 I enjoyed my time as an undergraduate student.	.612	.895
6 The faculty and staff cared about my success.	.666	.892
7 Problems I encountered throughout the education process were adequately addressed by the institution.	.626	.894
8 The activities and services I needed as a student were available to me through the institution.	.679	.892
10 My undergraduate alma mater provided me with a quality education.	.656	.894
11 The institution prepared me to find a job after graduation.	.590	.898
13 My undergraduate degree prepared me for success after graduation.	.733	.888
14 My undergraduate education is what got me where I am today.	.654	.893
16 The institution provided adequate assistance to me in finding a job after graduation.	.703	.890
26 My institution does a good job in keeping me connected to what is going on around campus.	.513	.900

Note. Cronbach's Alpha for the subscale, Student Experience, is .902.

Table 4.16

Examination of Internal Consistency to Estimate Reliability of the 9-item subscale, Alumni Perspective, within the Alumni Loyalty Scale

Item	<u>Internal Consistency</u>	
	Corrected item-total correlation	Alpha if item deleted
12 I still feel like I am part of the institution.	.770	.927
18 I feel a sense of loyalty to my undergraduate alma mater.	.802	.925
19 Supporting my undergraduate alma mater financially is important to me.	.822	.924
20 Supporting my undergraduate alma mater by volunteering my time is important to me.	.764	.927
21 I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	.773	.927
22 I can have a role in providing support to current students at my undergraduate alma mater.	.652	.934
23 I feel like my undergraduate alma mater cares about me.	.751	.928
24 Constant communication from my alma mater is important to me.	.768	.927
25 I want to feel like I am still a part of my undergraduate alma mater.	.711	.931

Note. Cronbach's Alpha for the Alumni Loyalty Scale is .935.

Table 4.17

Examination of Internal Consistency to Estimate Reliability of the 4-item subscale, Institutional Reputation, within the Alumni Loyalty Scale

Item	<u>Internal Consistency</u>	
	Corrected item-total correlation	Alpha if item deleted
27 The public reputation of the institution is important to me.	.615	.666
29 My undergraduate alma mater has a good reputation nationally.	.466	.740
30 The reputation of the institution affects the perceived quality and value of my degree.	.557	.694
31 Reputation was an important factor in selecting my undergraduate institution.	.601	.679

Note. Cronbach's Alpha for the Alumni Loyalty Scale is .754.

Conclusion

The final result of the item development, content expert review, the pilot study and an exploratory factor analysis has yielded a three factor solution that creates the Alumni Loyalty Scale. Three factors that make up this scale include Student Experience (Factor 1), Alumni Perspectives (Factor 2), and Institutional Reputation (Factor 3). A total of seven items were removed throughout the process including four from Factor 1, two from Factor 2, and one from Factor 3. See Appendix G for the final version of the Alumni Loyalty Scale.

Validity and reliability were estimated throughout the process. Content and construct validity were estimated by creating a theoretically sound basis for item development and assembling a group of experts to provide input on items and establish a content validity ratio for each using a three item scale to determine usefulness of the item. The information provided by an extensive literature review and valuable information provided by each expert helped guide the researcher in making decisions on factor determination and the retention of questionable items. Reliability was estimated by examining Cronbach's Alpha to ensure internal consistency for each subscale and the full Alumni Loyalty Scale.

CHAPTER 5

CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Two important aspect for higher education institutions to consider is how loyalty is created and what must be done to maintain and enhance the sense of loyalty that an alumnus has for his or her alma mater. Although structurally very similar, each institution has certain characteristics that create loyalty among its graduates and the institution must strategically build upon these elements (Ridley & Boone, 2001). However, there are some general experiences that research has shown will play an important role at any institution in shaping this emotional bond including: (a) the academic and social experience that students have had while on campus, (b) the perceived quality of the education that they received from the institution, (c) the level of involvement in both academic and extracurricular activities throughout the collegiate experience, and (d) the extent of involvement and sense of belonging after graduation (Hoyt, 2004; Mosser, 1993; Weets & Ronca, 2007; Weerts & Ronca, 2009). All of these aspects must be considered when creating an overall picture of the sense of loyalty that an alumnus has for his or her alma mater.

With a greater understanding of the construct of alumni loyalty and a theoretically sound method for measuring the strength of this loyalty, an institution can use the data provided by the instrument for a variety of purposes. This type of resource may provide better guidance for strategic planning efforts and allow an institution to examine the strength of loyalty and affinity that an individual has for the institution before investing significant funds in cultivating potential

donors. With an increased need for financial support and the decrease in funds available to court and cultivate alumni donors, identifying ways to more strategically identify individuals who are most likely to financially support their alma mater is critical to filling this funding gap.

Although there are many sources that provide insight into what factors contribute to an alumnus financially supporting his or her alma mater, there is currently no valid way to measure the sense of loyalty that an individual feels towards an institution.

The purpose of this study was to develop an instrument to assess the strength of loyalty that an individual feels for his or her undergraduate alma mater by identifying the psychometric properties that best explain the underlying construct. A cross-sectional quantitative design was employed for instrument development. A particular emphasis was placed on estimating construct and content validity as well as reliability since this would be a new instrument. Chapter 5 contains (a) research questions that guided the study, (b) a brief summary of the results, (c) discussion and implications, (d) recommendations for replicating the study and future research, and (e) implications for practice.

Research Questions

The primary research questions and subquestions that guided the study were:

1. How is the construct of alumni loyalty best described and measured?
 - a. What factors make up the construct of loyalty?
 - b. What items best measure the factors identified to explain loyalty?
2. What are the psychometric properties of the Alumni Loyalty Scale?
 - a. What is the estimated level of content validity of the Alumni Loyalty Scale?
 - b. What is the estimated level of construct validity of the Alumni Loyalty Scale?

- c. What is the estimated level of reliability of the Alumni Loyalty Scale?

Summary

The researcher conducted an extensive review of the professional and scholarly literature to establish a theoretically sound basis for identifying the variables that have the greatest effect on alumni loyalty to an institution. Four models were used to explain alumni giving behavior and donor motives. Further a theoretical framework was developed using both Organizational and Social Identification theories.

The four models included Volkwein's and Mosser's Model of Gift Giving Behavior, Hoyt's Model for Predicting Donor Status, and Mann's Theoretical Perspectives for Understanding Donor Motives (Volkwein et al, 1989; Mosser, 1993; Hoyt, 2004, Mann, 2007). Volkwein (1989; 1999) provided the first theoretical model to explain motivation that affects alumni giving. His research moves past general donor motives and takes into account the characteristics of the individual and his or her collegiate experience. Mosser (1993) builds on Volkwein's early model (1989) and places more emphasis on the importance of capacity to give. Mosser further investigates motivation and the interaction that occurs between capacity and motivation to influence alumni behavior. Using the previous models as a basis, Hoyt (2004) developed a model that explores the primary psychological factors that influence an individual's motivation to give, including personal values and preferences with regards to altruism, perceived need and efficacy, and overall satisfaction with one's education allowing for an expanded method for predicting alumni behavior. Hoyt's model (2004) was the first to combine all of the variables and explore the interaction between each of them. Finally, Mann (2007) examined the underlying theories that explain donor motives and combined the theoretical perspectives of

relationship building and cultivation through examination of five different theories. Of the five, the most relevant to this study was charitable giving theory.

The theoretical framework is centered on organizational and social identification theories. Social identification theory is based on the notion that individuals develop a psychological connection to an institution and allows the individual to essentially “adopt” the institution. Organizational identification theory is based on the concept that individuals define themselves by their association with an institution and that they develop a strong connection and sense of pride in the success that the institution experiences (Boros, 2008; Mann, 2007). The two must be examined simultaneously since social identification theory served as the original foundation for organizational identification theory and provides a much deeper understanding when reviewed together (Ashforth and Mael, 1989).

Further, a quantitative approach was employed to develop the instrument that would measure an unobservable construct, loyalty, and provide evidence of both validity and reliability. Loyalty is defined throughout the research as a primary contributor to what motivates an alumnus to support his or her alma mater and therefore the researcher set out to determine the best way to measure this phenomenon. In order to increase the strength of the study, the design included an extensive review of the literature as it relates to loyalty, the use of an expert panel to provide feedback based on long-term experience in the practical setting, and pilot testing of the instrument. By using a multi-step process, the researcher was able to ensure that validity was properly estimated to most accurately demonstrate that the construct that is expected to be measured is truly being measured and that the instrument is reliable and can be replicated for future use (Carmines & Zeller, 1979; DeVellis, 1991; Golashani, 2003; DeVellis, 2003). Nine content experts were assembled to provide input on the initial items that were included in the

development of the instrument. Once these recommendations were received and the items were compiled and revised, the instrument was redistributed to the expert review panel for feedback on each item as well as the overall instrument. Based on expert opinion, some minor revisions in wording were made. The researcher then calculated the content-validity ratio (CVR) for each item. Although some items didn't meet the minimum CVR for inclusion, the researcher retained these items based on further examination of the expert responses and eliminated only one item prior to distribution of the instrument for pilot testing.

Distribution of the instrument for pilot testing yielded a random sample of 1,029 respondents. As such, the sample size was sufficient to perform an exploratory factor analysis, investigate the underlying factor structure of the instrument, and identify the subscales that make up each factor. A maximum likelihood extraction technique with varimax orthogonal rotation was used by the researcher. Examination of the eigenvalues, communalities, and the rotated structure matrix guided the decision on the number of retained factors and the items that would remain in each factor. Further use of the expert review panel feedback and examined literature provided validity in determining the simple solution for the instrument. The final version of the Alumni Loyalty Scale resulted in a three-factor solution that included 24 items measuring three subscales: Student Experience, Alumni Perspectives, and Institutional Reputation.

Discussion and Implications

Creating an instrument that will assist institutional administration in identifying what creates alumni loyalty, putting it into practice, and ultimately maintaining this loyalty was the scope of this study. Additionally, providing a tool that can be used by multiple facets of the institution will aid in strategic planning for both the student and alumni perspectives of the

higher education process and yield positive results for the institution. In this section the researcher describes the results of the study to create the Alumni Loyalty Scale as it relates to existing literature and how this instrument will strengthen the ability of an institution to identify the most loyal alumni.

Revisiting the Theoretical Frameworks

Four primary models form the theoretical framework for the development of the Alumni Loyalty Scale. Volkwein et al. (1989; 1999) provided the first theoretical model to explain the motivation that affects alumni giving. He or she moves past general donor motives and takes into account the characteristics of the individual and his or her collegiate experience. This model shows the direct correlation between alumni activities and the financial support provided by these graduates and identified the variables that could best predict future alumni behavior (Volkwein, 1999). Mosser (1993) builds on Volkwein's (1989) Model of Alumni Gift Giving Behavior by focusing on the interaction between motivation to give and capacity to give and expands the concepts of academic and social integration as related to alumni gift giving behavior. Additionally, Mosser (1993) removed the construct of demographic background since the results only showed this factor to be a measurement variable rather than a true latent variable and seemed to duplicate the original model built on demographic information.

Hoyt (2004) took a different approach. Using the Volkwein (1989; 1999) and Mosser (1993) models as a basis, Hoyt developed the Model for Predicting Donor Status. This model incorporates all of the previous two models, but adds the elements of economic conditions, competing charities, alumni satisfaction, altruistic values and preference, alumni's perceived need and efficacy of use, and solicitation methods that are employed – all of which contribute

directly to an alumnus motivation to give and must be considered in evaluating willingness to act on that motivation (Hoyt, 2004). Mann's model also incorporates a different perspective by considering five primary theories that contribute to understanding donor motives. Mann (2007) takes a closer look at the theoretical perspectives of relationship building and cultivation in order to get a better understanding of the motives behind philanthropic giving.

Although all four models are useful in understanding donor motives, the underlying concept to giving is motivation to give. This motivation must be derived from personal values and goals, culture, religion, and society that all have different levels of influence over an individual. Loyalty is one such value. Loyalty can be the driving force for human actions and often provides the bonding foundation between an individual and something of great value to him or her (Healy, 2007). Therefore, many of the variables described in each of these models are foundational to the development of the items to be included in the Alumni Loyalty Scale.

The two theories that play the most substantial role in explaining the development of one's loyalty to an institution were: organizational identification theory and social identification theory. Both theories provide a means for the individual to define oneself by developing a psychological connection with the institution that identifies the individual as a part of the institution in which he or she personally experiences the successes and failures of the institution. Essentially, viewing the individual and the institution as one, and describing the basis on which loyalty is formed (Boros, 2008; Mann, 2007; Ashforth & Mael, 1989; Foote, 1951).

Discussion of the Results

With a foundation based in the professional literature and a theoretical framework to support the underlying construct, the feedback provided by the expert review panel supported the majority of the alumni loyalty variables presented in the literature, lending validation to the items that were created. The experts used in this study were content experts in the field of institutional advancement including alumni relations and higher education fundraising, primarily concentrated in the southeast region of the United States. With validation from these sources, the initial items included were identified as essential or useful in determining strength of loyalty.

Analysis of the exploratory factor analysis provided somewhat of a contradictory result. Seven items were removed from the final scale because they had no effect in contributing to any of the final subscales – student experience, alumni perspectives or institutional reputation. The items that were removed were related to professional satisfaction, involvement in extracurricular activities outside of the classroom, family legacy to an institution, the impact of intercollegiate athletics, degree completion time, and the institution's local reputation. The researcher was most interested in the effects of extracurricular activities and intercollegiate athletics. Both of these items have been discussed extensively throughout the literature and would have been predicted to be significant. However, each may have been eliminated based on the makeup of the population used for pilot study. Two explanations can be provided: 1) the Alumni Loyalty Scale provides a generalized measure for loyalty, removing those items that would vary by the nature of the institution using the instrument to provide a more true response of strength of loyalty and 2) the Alumni Loyalty Scale may require slight modifications for use by institutions with differing demographic characteristics than those represented by the pilot study respondents.

Additional research may be able to further explain any modifications that would be necessary for demographic differences.

Psychometric Properties

A critical step in the development of a new instrument is estimating validity and reliability. Validity is the extent to which an instrument measures what it is intended to measure accurately and adequately (Carmines & Zeller, 1979; DeVellis, 1991; Golafshani, 2003).

Reliability is the extent to which the results of the instrument are consistent over time and that the instrument results can be replicated when using a similar methodology (DeVellis, 2003; Golafshani, 2003). No research has been identified to date that provides a theoretically sound basis for quantifiably measuring the strength of alumni loyalty. It is common that an institution will create a survey that is specific to the institution and sets out to answer targeted questions related to alumni, but does not use an instrument that has properly examined the psychometric properties related to an aspect of alumni behavior, such as loyalty, and has not demonstrated adequate validity and reliability.

Validity was measured by using a combination of quantitative and qualitative validation methods. Content validity was estimated through the use of an extensive review of the literature and a content expert review panel throughout the instrument development process. Although this is often difficult to do when measuring abstract constructs such as beliefs, attitudes, domains or dispositions, it is a recommended procedure for estimating validity. Using nine experts in institutional advancement from a wide array of backgrounds in alumni relations and development in different types of institutions, different regions, and varying levels of experience provided a diverse view of perspectives related to loyalty. Experts were required to have obtained an

advanced degree related to higher education, marketing, business, or leadership, have 10 or more years experience in both alumni relations and higher education fundraising, and have a proven track record of success in alumni relations and higher education fundraising, with success measured by growth percentages in alumni participation through various levels of support. Construct validity is most useful in measuring a particular characteristic related to the construct (Orcher, 2007). The exploratory factor analysis allowed the researcher to ensure that this construct was adequately measured and provided the relevant information that better explained what drives alumni loyalty.

Internal consistency measures were used to estimate reliability. Internal consistency is primarily concerned with the homogeneity of the items within the scale and the ability of the instrument to measure a single construct (DeVellis, 2003). With a minimum Cronbach's alpha of .7, reliability of the instrument was determined by using an internal consistency verification on each subscale and the instrument as a whole. Cronbach's alpha was .902 for Student Experience, .935 for Alumni Perspective, .754 for Institutional Reputation, and .951 for the overall Alumni Loyalty Scale. Thus, the items did not have significant overlap within the subscales and each item within the scale was measuring a single construct (DeVellis, 2003).

In conducting the study to develop and validate the Alumni Loyalty Scale, the researcher is able to fill a gap in the literature by providing an instrument that can be used as a tool to aid in identifying those alumni who are most loyal to an institution. This provides an opportunity to quantitatively determine the level of loyalty an individual has to the institution. Advancement officers may use this instrument to target long term, mutually beneficial alumni relationships, because they can establish and measure the factors which best determine loyalty.

Recommendations

The following section will include three sets of recommendations. These will include recommendations for replicating the study, recommendations for future research, and recommendations for practice.

Recommendations for Replicating the Study

The researcher would make the following recommendations for improvement when developing a new instrument.

1. Consider using a mixed method design that would allow the researcher to include telephone interviews and focus groups with alumni as an additional source for determining what creates and maintains alumni loyalty. Although bias can be introduced when someone is asking to respond in these formats, the value of the data gathered would outweigh the potential bias if it is adequately planned for and monitored.
2. Recruit a larger, more diversified group of experts to assist in the development of the instrument. Adding additional experts with expertise in different areas including instrument development and student affairs would provide more depth of content. Additionally, widening the geographic location of experts would provide insight into the differences between institutions.
3. Diversify the pilot study population to include a cross-section of individuals from different undergraduate institutions rather than focusing on a single institution. By focusing on a single institution, some data may be skewed by the individual characteristics of the institution being used.

Recommendations for Future Research

Developing a valid and reliable instrument that is based in a solid theoretical framework is the best way to begin understanding the beliefs, opinions, and behaviors of particular group of individuals. Once the initial instrument is developed, further research can be conducted to continue the line of research. The following are recommendations for future research.

1. Conduct a pilot study using this instrument across a population of alumni with undergraduate degrees from a variety of institutions that are both geographically diverse and have different institutional classifications to determine if one instrument is sufficient or if multiple versions would be required for maximized effectiveness.
2. Evaluate the effect that the demographic components have on the results of the instrument.
3. Determine the predictability of the Alumni Loyalty Scale for determining propensity to give back financially to the institution.
4. Continue research to develop new or revised items that will strengthen the factor structure of the instrument.

Implications for Practice

The Alumni Loyalty Scale was developed to be used as a tool for measuring the strength of loyalty that an alumnus has for his or her undergraduate alma mater. Although the researcher's primary area of interest is in university advancement, there are multiple uses for the instrument across an institution. One such use is to assist university administration in strategic planning for both short and long term goals of an institution. In today's environment, resources

can be scarce. Therefore, institutions must be well informed as to what will have the greatest positive impact on the institution. By knowing the variables that have the greatest impact on an individual's loyalty to an institution, emphasis can be placed on these areas to enhance and better serve its constituents.

Professionals in student affairs can use the results of the Alumni Loyalty Scale to see which aspects of the academic experience have the greatest impact on an individual's loyalty to his or her alma mater. By using available resources to enhance these identified areas the institution can strive to create an environment that is satisfying and beneficial to students and provides a lasting, positive memory. The benefit will have an impact beyond that of simply the current student's welfare, but may later translate to many forms of institutional support once the student has become a graduate.

As is addressed in the four models used as a basis for scale development, the student experience plays a pivotal role in establishing loyalty and in turn motivation for future support of one's alma mater. In the student experience subscale, items focus on a wide range of areas including the quality of education received, the ability to find a job and perform at an expected level in the workplace after graduation, and a sense of pride and accomplishment throughout the educational experience. Administrators must use this information to improve these relevant aspects of student life. Today's educational environment is constantly changing and keeping up with the demands of the students will be critical in ensuring that a positive experience is the memory that is maintained after graduation. The bottom line is that the student experience is the primary factor in developing loyalty. Student experience has the greatest lasting impact on an individual and an institution must pay careful attention to the expectations of its students and strive to exceed those expectations.

Advancement offices can use the results of the Alumni Loyalty Scale to more effectively identify those alumni who are most likely to give back financially to the institution. With smaller development budgets, advancement professionals must better target those who have both motivation and capacity to give back. Based on the literature discussed in chapter 2, we know that a primary key to motivation is loyalty. If we can determine an alumnus level of loyalty, we can better estimate the propensity for support through various avenues.

The subscale, Alumni Perspectives, consists of items that measure the degree to which alumni feel as if they owe something back to the institution, as if they are still part of the institution, and that the institution still cares about them personally. Many alumni, who developed a strong affinity for the institution while they were a student, need to feel as though they are a part of the institution in some way in order to maintain that loyalty. This need, as well as how it might best be met by the institution, is different for each individual. For some, a monthly newsletter is sufficient. For others, a membership in the alumni association, a visit from a school representative, a letter from a student, or other methods of communication are meaningful ways to ensure that loyalty remains strong. Using this instrument as a tool, the institution can indentify strengths and weaknesses in current and proposed initiatives to foster and maintain loyalty.

Additionally, a key component of the Alumni Loyalty Scale is the subscale Institutional Reputation. These items can provide valuable information for the senior administration of an institution in shaping the short and long term strategic plans. It is evident that the reputation of an institution has a direct impact on the perceived quality and value that an individual has for his or her degree. Based on the final items that were included, institutional reputation on a national scale plays a large part in both selecting an institution and promoting or showing pride in the

institution after graduation having direct implications on future student recruitment and the motivation to continue supporting ones alma mater through many different avenues. Although an institution may have outstanding components, if the overall reputation of the institution is lacking there may be a direct correlation in the amount of support available for the institution from alumni.

The Alumni Loyalty Scale on its own can provide useful data for a higher education institution. However, when the results of the scale are used in conjunction with other tools that are available to university administrators, a powerful connection can be made with alumni to optimize the relationship for the good of both the individual and the institution.

REFERENCES

- Andreoni, J. (1989). Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence. *Journal of Political Economy* , 97, 1447-1458.
- Aronson, J. (1994). A Pragmatic View of Thematic Analysis. *The Qualitative Report*, 2 (1).
Retreived from <http://www.nova.edu/ssss/QR/BackIssues/QR2-1/aronson.html>
- Ashforth, B. E., & Mael, F. (1989). Social Identity Theory and the Organization. *Academy of Management Review* , 14, 20-39.
- Bandura, A. (2001). Social Cognitive Theory: And Angetic. *Annual Review of Psychology*, 54(1), 1-26.
- Becker, G. S. (1974). A Theory of Social Interactions. *Journal of Political Economy* , 82, 1063-1093.
- Bekkers, R., & Wiepking, P. (2007, September 21). *Philanthropy*. Retrieved January 14, 2011, from The Center on Philanthropy at Indiana University:
<http://www.philanthropy.iupui.edu/Education/philanthropy.pdf>
- Bergami, M., & Bagozzi, R. P. (2000). Self-Categorization, Affective Commitment and Group Self-Esteem as Distinct Aspects of Social Identity in the Organization. *British Journal of Social Psychology* , 39, 555-577.
- Boros, S. (2008). Organizational Identification: Theoretical and Empirical Analyses of Competing Conceptualizations. *Cognition, Brain, Behavior*, 12 (1), 1-27.
- Boyle, J. J. (1990). College Quality and Alumni Giving. *Ph.D. Dissertation* . Syracuse University.
- Breneman, D. W. (2002, June 14). For Colleges, This Is Not Just Another Recession. *The Chronicle of Higher Education*, B7.
- Bruggink, T. H., & Siddiqui, K. (1995). An Econometric Model of Alumni Giving: A Case Study for a Liberal Arts College. *The American Economist*, 2, 53-60.
- Carbone, R. F. (1986). *An Agenda for Research on Fund Raising*. College Park, MD: University of Maryland, Clearinghouse for Research on Fund Raising.
- Carmines, E. G., & Zeller, R. A. (1979). Reliability and validity assessment. Newbury Park, CA: Sage Publications.

- Cheslock, J. & Gianneschi, M. (2008). Replacing State Appropriations with Alternative Revenue Sources: The Case of Voluntary Support. *Journal of Higher Education*, 79(2), 208-229.
- Clotfelter, C. T. (2003). Alumni Giving to Elite Private Colleges and Universities. *Economics of Education Review*, 22 (2), 109-120.
- Cohen, R. (1978). Altruism: Human, Cultural, or What? In L. Wispe (Ed.), *Altruism, Sympathy, and Helping, Psychological and Sociological Principles* (pp. 79-98). New York: Academic Press.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Connolly, M.S. & Blachette, R. (1986). Understanding and Predicting Alumni Giving Behavior. In J.A. Dunn Jr. (ed.) *Enhancing the Management of Fundraising. New Directions for Institutional Research*, No. 51, 69-80, San Francisco: Jossey Bass.
- Costello, A.B., & Osborne, J. W. (2005). Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most From Your Analysis. *Practical Assessment, Research & Evaluation*, 10(7).
- Council for Aid to Education. (2009). *Voluntary Support of Education Survey*. Retrieved from http://www.cae.org/content/pdf/VSE_2009_Press_Release.pdf
- Creswell, J.W., (2005). *Educational Research: Planning, conducting, and evaluating quantitative and qualitative research* (2nd Ed.). Upper Saddle River, NJ: Pearson.
- Cunningham, B. M., & Cochi-Ficano, C. K. (2002). The Determinants of Donative Revenue Flows from Alumni of Higher Education. *The Journal of Human Resources*, 37 (3), 540-569.
- Curti, M., & Nash, R. (1965). *Philanthropy in the Shaping of American Higher Education*. New Brunswick, New Jersey: Rutgers University Press.
- DeVellis, R. F. (1991). Scale development: Theory and applications. Applied Social Research Methods Series, Volume 26. Newbury Park, CA: Sage Publications.
- DeVellis, R. F. (2003). *Scale Development: Theory and Application* (2nd. ed.). Thousand Oaks, CA: SAGE Publications.
- Dillman, D.A., Smyth, J.D., & Christian, L.M. (2009). *Internet, Mail, and Mixed-Mode Surveys-The Tailored Design Method*. Hoboken, NJ: John Wiley & Sons, Inc.
- Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational Images and Member Identification. *Administrative Science Quarterly*, 39, 239-263.

- Foot, E. E. (1951). Identification as the basis for a theory of motivation. *American Sociological Review*, 16, 14-21.
- Fowler, F.J. (2009). Survey research methods (4th ed.). Applied Social Research Methods Series. Thousand Oaks, CA: Sage Publications.
- Gallo, P. J., & Hubschman, B. (2003). *The Relationship between Alumni Participation and Motivation on Financial Giving*. Chicago: American Educational Research Association.
- Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), 597-607.
- Gorsuch, R. L. (1983). *Factor Analysis*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.
- Grant, J. S., & Davis, L. L. (1997). Focus on Quantitative Methods – Selection and Use of Content Experts for Instrument Development. *Research in Nursing & Health* 20, 269-274.
- Guy, B. S., & Patton, W. E. (1999). Toward 2000 and Beyond: Charitable and Social Change Giving in the New Millennium. *Fund raising Management*, 30, 24-29.
- Haddad, J. F. (1986). An Analysis of the Characteristics of Alumni Donors and Nondonors at Butler University. *Ed.D. Dissertation*. Butler University.
- Haslam, S. A. (2001). *Psychology in Organizations: The Social Identity Approach*. London: Sage.
- Healy, M. (2007). School Choice, Brand Loyalty, and Civic Loyalty. *Journal of Philosophy of Education*, 41 (4), 743-756.
- Hogg, M. A., & Abrams, D. (1988). *Social Identifications: A Social Psychology of Intergroup Relations and Group Processes*. London: Routledge.
- Hogg, M. A., & Turner, J. C. (1987). Interpersonal Attraction, Social Identification and Psychological Group Formation. *European Journal of Social Psychology*, 15, 51-66.
- Hoyt, J. E. (2004, May 28 - June 2). Understanding Alumni Giving: Theory and Predictors of Donor Status. Boston, MA: Online Submission. Retrieved from <http://www.eric.ed.gov/PDFS/ED490996.pdf>
- Hueston, F. R. (1992). Predicting Alumni Giving: A donor analysis test. *Fundraising Management*, 22, 19-22.
- Johnston, P. & Wilkinson, K. (2009). Enhancing Validity of Critical Tasks Selected for College and University Program Portfolios. *National Forum of Teacher Education Journal*, 19(3).
- Keating, B., Pitts, R., & Appel, D. (1981). United Way Contributions, Coercion, Charity of Economic Self-Interest? *Southern Economic Journal*, 47, 816-823.

- Keller, G. (2001). The New Demographics of Higher Education. *The Review of Higher Education* , 24 (3), 219-235.
- Kieffer, K. M. (1998, November). *Orthogonal versus Oblique Factor Rotation: A Review of the Literature regarding the Pros and Cons*. Paper presented at the annual meeting of the Mid-South Educational Research Association, New Orleans, LA.
- Kim, J. & Mueller, C.W. (1978). *Factor Analysis Statistical Methods and Practical Issues*. Beverly Hills, CA: Sage Publications, Inc.
- Korvas, R. J. (1984). The Relationship of Selected Alumni Characteristics and Attitudes to Alumni Financial Support at a Private College. *Ph.D. Dissertation*. University of Missouri, Kansas City.
- Lawshe, C.H. (1975). A Quantitative Approach to Content Validity. *Personnel Psychology*, 28, 563-575.
- Leslie, L. L., & Ramey, G. (1986). *Donor Behavior and Voluntary Support for Higher Education Institutions*. American Association of Fund-Raising Counsel Trust for Philanthropy and Council for Advancement and Support of Education.
- Levine, W. (2008). Communications and alumni relations: What is the correlation between an institution's communications vehicles and alumni annual giving? *International Journal of Educational Advancement* , 8 (3/4), 176-197.
- loyalty. 2011. In *Merriam-Webster.com*. Retrieved January 2011, from <http://www.merriam-webster.com/dictionary/loyalty>.
- Mael, F., & Ashforth, B. E. (1992). Alumni and Their Alma Mater: A Partial Test of the Reformulated Model of Organizational Identification. *Journal of Organizational Behavior*, 13 (2), 10-123.
- Mann, T. (2007). College Fund Raising Using Theoretical Perspectives to Understand Donor Motives. *International Journal of Educational Advancement* , 7 (1), 35-45.
- McKee, D. F. (1995). An Analysis of Factors Which Affect Alumni Participation and Support. *Ed.D. Dissertation* . Indiana University.
- McKenzie, J.F., Wood, M.L., Kotecki, J.E., Clark, J.K., & Brey, R. A. (1999). Establishing Content Validity: Using Qualitative and Quantitative Steps. *American Journal of Health Behavior*, 23(4), 311-318.
- McNally, F. E. (1985). An Analysis of Alumni Philanthropy Related to Personal, Social, and Academic Characteristics. *Ed.D. Dissertation* . University of San Francisco.
- Mehra, B. (2002). Bias in Qualitative Research: Voices from an Online Classroom. *The Qualitative Report*, 7 (1). Retrieved from <http://www.nova.edu/ssss/QR/QR7-1/mehra.html>

- Melchiori, G.S. (1988). Alumni Research: An introduction. *New Directions for Institutional Research*, 1988, 5-11. doi: 10.1002/ir.37019886003
- Mertler, C.A., & Vannatta, R.A. (2002). *Advanced and Multivariate Statistical Methods: Practical Application and Interpretation*. (2nd Ed.). Pyrczak Publishing, Los Angeles, CA.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the Workplace: Theory, Research and Applications*. Thousand Oaks, CA: Sage.
- Miracle, W. D. (1977). Differences Between Givers and Nongivers to the University of Georgia Annual Fund. *Ph.D. Dissertation*. University of Georgia.
- Mosser, J. W. (1993). Predicting alumni/ae gift giving behavior: A structural equation model approach. *Doctoral Dissertation*, University of Michigan. (ERIC ED355883).
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw Hill.
- Nunnally, J.C. & Bernstein, I.H. (1994). *Psychometric Theory* (3rd ed.). New York: McGraw Hill.
- Okunade, A. A., & Berl, R. L. (1997). Determinants of Charitable Giving of Business School Alumni. *Research in Higher Education*, 38, 201-214.
- Okunade, A. A., Wunnava, P. V., & Walsh, R. (1994). Charitable Giving of Alumni: Micro-data Evidence from a Large Public University. *American Journal of Economics and Sociology*, 53(1), 73-84.
- Olsen, K., Smith, A. L., & Wunnava, P. V. (1989). An Empirical Study of the Life-Cycle Hypothesis with Respect to Alumni Donations. *American Economist*, 33 (2), 60-63.
- Olson, M. (1965). *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Orcher, L. T. (2007). *Conducting a survey: Techniques for a Team Project*. Glendale, AZ: Pyrczak Publishing, Los Angeles, CA.
- Osborne, Jason W. & Anna B. Costello (2004). Sample size and subject to item ratio in principal components analysis. *Practical Assessment, Research & Evaluation*, 9(11). Retrieved January 15, 2012 from <http://PAREonline.net/getvn.asp?v=9&n=11> .
- Pajares, F., Hartley, J., & Valiente, G. (2001). Response format in writing self-efficacy assessment: greater discrimination increases prediction. *Measurement and Evaluation in Counseling and Development*, 33, 214-221.
- Pearson, J. (1999). Comprehensive Research on Alumni Relationship: Four Years of Market Research at Stanford University. In J. Pettit, & L. Litten, *A New Era of Alumni Research: Improving Institutional Performance and Better Serving Alumni (New Directions for Institutional Research, no.101)* (pp. 1-22). San Francisco: Jossey-Bass.

- Pendel, M. (1985). Beyond Gallup. *CASE Currents*, 11 (8), pp. 40-42.
- Radley, A., & Kennedy, M. (1995). Charitable giving by individuals: A study of attitudes and practice. *Human Relations*, 48 (6), 685-709.
- Ridley, D. R., & Boone, M. M. (2001). *Alumni Loyalty: A Survey Investigation*.
- Rosenthal, D. L. (1978). Toward resolving the altruism paradox: Affect, Self-Reinforcement, and Cognition. In L. Wispe (Ed.), *Altruism, Sympathy, and Helping, Psychological and Sociological Principles* (pp. 101-113). New York: Academic Press.
- Shadoian, H. L. (1989). *A Study of Predictors of Alumni Philanthropy in Public Colleges*. Ed.D. dissertation, The University of Connecticut.
- Shaw, S.C. & Taylor, M.A. (1995). *Reinventing fundraising: Realizing the potential of women's philanthropy*. San Francisco: Jossey-Bass.
- Smart, J.C. & Pascarella, E.T. (1986). Socioeconomic Achievements of Former College Students. *Journal of Higher Education*, 57, 529-549.
- Spaeth, J. L., & Greeley, A. M. (1970). *Recent Alumni and Higher Education: A Survey of Graduates*. Berkley, CA: Carnegie Commission on Higher Education.
- Spicer, J. (2005). *Making Sense of Multivariate Data Analysis*. Thousand Oaks, CA: Sage Publications.
- Stets, J. E., & Burke, P. J. (2000). Identity Theory and Social Identity Theory. *Social Psychology Quarterly*, 63 (3), 224-237.
- Strout, E. (2006). University of California at Los Angeles: Translating Alumni Loyalty Into Donations. *The Chronicle of Higher Education*, 52 (37), A28.
- Tabachnick, B.G., & Fidell, L.S. (1983). *Using Multivariate Statistics*. New York: Harper & Row.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics*, 5th ed. Boston: Allyn and Bacon.
- Taylor, A. L., & Smart, J. C. (1995). Characteristics of alumni donors and non-donors at a research I, public university. *Research in Higher Education*, 36 (3), 283-302.
- Thelin, J. R. (2004). *A History of American Higher Education*. Baltimore, MD: The John Hopkins University Press.
- Toker, A., & Kankotan, E. I. (2009, January 16-17). *Member Relationship Managment in Nonprofit Organizations: The Case of an Alumni Organization*. Retrieved January 17, 2011, from ESCP Europe: http://www.escp-eap.net/conferences/marketing/2008_cp/Materiali/Paper/Fr/Toker_Kankotan.pdf

- Tsao, J. C., & Coll, G. (2005). To Give or Not to Give: Factors Determining Alumni Intest to Make Donations as a PR Outcome. *Journalism and Mass Communication Educator*, 59 (4), 381-92.
- Umbach, P. D., & Porter, S. R. (2002). How do Academic Departments Impact Student Satisfaction? *Research in Higher Education*, 43 (2), 209-234.
- Veneziano, L. & Hooper, J. (1997). A method for quantifying content validity of health-related questionnaires. *American Journal of Health Behavior*, 21, 67-70.
- Vokwein, J. F., Webster-Saft, L., Xu, W., & Agrotis, M. H. (1989, May). A model of alumni gift-giving behavior. Paper presented at the annual meeting of the Association of Institutional Research, Baltimore, Maryland. (ERIC ED308761).
- Volkwein, J. F., & Parmley, K. (1999). Testing Why Alumni Give: A model of alumni gift-giving behavior. In D. Shoemaker, *Research in Alumni Relations: Surveying Alumni to Improve Your Program* (pp. 59-62). Washington, DC: CASE Books.
- Weerts, D. J., & Ronca, J. M. (2007). Profiles of Supportive Alumni: Donors, Volunteers, and Those Who "Do It All". *International Journal of Educational Advancement* , 7 (1), 20-34.
- Weerts, D. J., & Ronca, J. M. (2009). Using Classification Trees to Predict Alumni Giving for Higher Education. *Education Economics* , 17 (1), 95-122.
- Wood, J. R., & Hougland, J. G. (1990). The role of religion in philanthropy. In J. V. Associates, *Critical issues in American Philanthropy* (pp. 99-132). San Francisco: Jossey-Bass.
- Wunnava, P. V., & Lauze, M. A. (2001). Alumni giving at a small liberal arts college: Evidence from consistent and occasional donors. *Economics of Education Review* , 20, 533-543.
- Young, C. F. (1981). Interests and Motives of Nonalumni Givers. In F. C. Pray (Ed.), *Handbook for Educational Fundraising* (pp. 73-81). San Francisco, CA: Jossey-Bass.

APPENDIX A

TIMELINE AND PROCESS

Timeline and Process Used for the Development and Validation of the Alumni Loyalty Scale

Instrument Development Timeline											
	May 2011	June 2011	July 2011	Aug 2011	Sept 2011	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012
Planning Phase											
IRE Submission and Approval	X										
Dissertation Proposal Defense	X										
Phase One											
Expert Panel Assembled		X	X								
Expert Panel Questionnaire Administered			X	X							
Instrument Development			X	X	X						
Expert Panel Instrument Review					X	X					
Implement Instrument Changes						X	X				
Phase Two											
Obtain List of Potential Respondents						X	X				
Pilot Test Instrument using Random Sample								X	X		
Analyze Data using Exploratory Factor Analysis										X	X
Report Findings										X	X

APPENDIX B

CONTENT EXPERT PANELIST REQUEST FOR PARTICIPATION VIA EMAIL AFTER PERSONAL TELEPHONE REQUEST

Dear [LAST NAME],

I would like to thank you once again for agreeing to participate as a content expert for the dissertation study, Development and Validation of the Alumni Loyalty Scale, protocol number X110426007. As we discussed previously, I am a Ph.D. candidate in Educational Leadership in the School of Education at the University of Alabama at Birmingham and I am conducting this study as part of that program. Your participation in this study is completely voluntary and can be terminated at any time. If you are a UAB student or employee, taking part in this research is not a part of your UAB class work or duties. You can refuse to enroll, or withdraw after enrolling at any time before the study is over, with no effect on your class standing, grades, or job at UAB. You will not be offered or receive any special consideration if you take part in this research.

The purpose of this research is to develop an instrument that can be used by higher education institutions to determine those characteristics, personal traits, and experiences that create and maintain alumni loyalty to an institution. Your involvement as a content expert is expected to require four to six hours throughout the entire process. As part of this invitation, you have received a questionnaire that will allow you to share your knowledge and insight as to what loyalty is, how it is created, and how it is maintained. Following the return of this document, the instrument will be designed and distributed to you for your feedback on the items creation and inclusion. **Please return each portion of the responses to me via email at jbreland@uab.edu within four weeks of receipt.** All information gathered will be used for research purposes and reviewed by the researcher only for the intended purpose. All responses will be kept confidential and stored under password encryption.

If you have further questions or would like additional information about the study please contact the Principal Investigator, Ms. Jennifer Breland by phone at (205) 329-0028 or by email at jbreland@uab.edu. If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact Ms. Sheila Moore. Ms. Moore is the Director of the Office of the Institutional Review Board for Human Use (OIRB) at the University of Alabama at Birmingham (UAB). Ms. Moore may be reached at (205) 934-3789 or 1-800-822-8816. If calling the toll -free number, press the option for “all other calls” or for an operator/attendant and ask for extension 4-3789. Regular hours for the Office of the IRB are 8:00 a.m. to 5:00 p.m. CT, Monday through Friday. You may also call this number in the event the research staff cannot be reached or you wish to talk to someone else.

Again, thank you for your participation in this study and I look forward to sharing the results upon completion.

Sincerely,
Jennifer R. Breland
Principal Investigator

APPENDIX C

CONTENT EXPERT PANELIST
INITIAL DATA GATHERING QUESTIONNAIRE

Definition of Loyalty - An Experts Opinion

Expert Review Interview

Dissertation Title: Development and Validation of the Alumni Loyalty Scale

UAB IRB Protocol Number X110426007

You have been identified as an expert in the field of alumni relations, development, and advancement. The questions below are designed to provide insight into an expert's opinion of the definition of loyalty, what creates loyalty to an institution, how loyalty to an institution is maintained, etc. Please take the time to carefully consider each question and based on your knowledge and experience respond to each question in as much depth as possible. Your responses will be used to assist with the creation of items to be included in the Alumni Loyalty Scale that is being designed as part of a dissertation study. Limited space is provided for your responses, but please feel free to expand your answers to completely answer the questions.

Name: _____

Position: _____

Name of Institution: _____

Type of Institution (i.e. 4-year, public, research): _____

Number of Years in Higher Education Advancement: _____

Greatest Accomplishments as an Advancement Professional: _____

What is loyalty? _____

What is alumni loyalty? _____

What creates alumni loyalty to a higher education institution? _____

When does loyalty to an institution begin? _____

What maintains alumni loyalty? _____

What motivates alumni to act on loyalty to an institution and provide support to the institution? _____

What effect does the student experience have on an alumnus' sense of loyalty to an institution? _____

What effect does current job placement/satisfaction have on an alumnus' sense of loyalty to an institution? _____

What effect does proximity to campus after graduation have on an alumnus' sense of loyalty to an institution? _____

What effect does membership in an alumni society have on an alumnus' sense of loyalty to an institution? _____

In your opinion, what is the one greatest factor that strengthens or weakens an alumnus' sense of loyalty to an institution? _____

Please add any additional comments that you would like to include related to an alumnus loyalty to a higher education institution, how it is created, and how it can be maintained. .

If you have questions or would like additional information in completing the items above, participating in the study or the development process in general, please contact Jennifer Breland at (205) 975-6829 or by email at jbreland@uab.edu.

APPENDIX D

CONTENT EXPERT PANELIST
ALUMNI LOYALTY SCALE – VERSION 1
FOR REVIEW

Alumni Loyalty Scale

Thank you for agreeing to complete this survey and provide valuable information regarding your experience and feelings towards your undergraduate alma mater. Your responses to the questions/statements below will assist universities in determining those areas that affect alumni attitudes the most and assist institutions with maintain relationships with their most valuable asset, their alumni. Please understand that the information you provide will be confidential and will not be shared with any identified higher education institutions.

1. What undergraduate institution did you attend? _____
2. What year did you graduate from your undergraduate alma mater? _____
3. How many years did you spend at your undergraduate alma mater? _____
4. What degree(s) did you complete? ☐ Bachelors ☐ Masters ☐ Doctoral ☐ Other _____ If two or more degrees were completed, were these received at different institutions? ☐ Yes, different institution ☐ No, the same institution
5. How far do you currently live from your undergraduate alma mater? _____ miles
6. Gender: ☐ Male ☐ Female
5. Did you receive financial aid from your undergraduate alma mater? ☐ Yes ☐ No ☐ I Don't Know
6. Did you receive scholarships or grants from your undergraduate institution? ☐ Yes ☐ No ☐ I Don't Know
7. Did your parents or grandparents attend your undergraduate alma mater? ☐ Yes ☐ No ☐ I Don't Know
8. Are you currently working in the field for which you received your degree? ☐ Yes ☐ No ☐ I Don't Know
9. Are you a member of your undergraduate alma mater's alumni association? ☐ Yes ☐ No ☐ I Don't Know
10. Do you currently give back financially to your alma mater in the last 2 years? ☐ Yes ☐ No ☐ I Don't Know
11. How far do you currently live from your undergraduate alma mater? ☐ Yes ☐ No ☐ I Don't Know

Notes and Comments:

- 1) Would you include the option for "I Don't Know"?
- 2) Are there additional items that need to be included in this section?

Student Experience Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	Reviewer Section This section will not appear on the instrument. Please select whether the question is necessary, useful, or not necessary and provide comments as needed.	NECESSARY	USEFUL	NOT NECESSARY
My family played a substantial role in selecting my undergraduate institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My experience as an undergraduate student met my expectation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often participated in extracurricular activities outside of the classroom while I was a student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intercollegiate athletics played a significant role at my undergraduate alma mater for me personally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoyed my time as an undergraduate student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The faculty and staff cared about my success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes and Comments:
1) Are there additional items that should be added to this section or be removed from this section?
2) Are the items clear and easily understandable?

Student Experience					Reviewer Section		
Continued...							
Problems I encountered throughout the education process were adequately addressed by the institution.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The activities and services I needed as a student were available to me through the institution.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I completed my degree within the time frame that I anticipated.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater provided me with a quality education.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution prepared me to find a job after graduation.					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes and Comments:

- 1) Are there additional items that should be added to this section or be removed from this section?
- 2) Are the items clear and easily understandable?

Alumni Experience Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	Reviewer Section This section will not appear on the instrument. Please select whether the question is necessary, useful, or not necessary and provide comments as needed.								
	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	NECESSARY	USEFUL	NOT NECESSARY
The courses that I took prepared me for success after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate education is what got me where I am today.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working in the field in which I graduated is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution provided adequate assistance to me in finding a job after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with where I am professionally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate degree prepared me for success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes and Comments:

- 1) Are there additional items that should be added to this section or be removed from this section?
- 2) Are the items clear and easily understandable?

Alumni Experience Continued...						Reviewer Section		
I feel a sense of loyalty to my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Supporting my undergraduate alma mater financially is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Supporting my undergraduate alma mater by volunteering my time is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
I can have a role in providing support to current students at my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Notes and Comments:

- 1) Are there additional items that should be added to this section or be removed from this section?
- 2) Are the items clear and easily understandable?

Staying Connected Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	Reviewer Section This section will not appear on the instrument. Please select whether the question is necessary, useful, or not necessary and provide comments as needed.							
STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	NECESSARY	USEFUL	NOT NECESSARY
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like my undergraduate alma mater cares about me.								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Constant communication from my alma mater is important to me.								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
I still want to feel like I am part of my undergraduate alma mater.								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
My institution does a good job in keeping me connected to what is going on around campus.								
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
I still feel like I am part of the institution.								

Notes and Comments:

- 1) Are there additional items that should be added to this section or be removed from this section?
- 2) Are the items clear and easily understandable?

Institutional Reputation Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	Reviewer Section This section will not appear on the instrument. Please select whether the question is necessary, useful, or not necessary and provide comments as needed.								
	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	NECESSARY	USEFUL	NOT NECESSARY
The public reputation of the institution is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater has a good reputation within the local community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater has a good reputation nationally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The reputation of the institution affects the perceived quality of my degree.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation was an important factor in selecting an undergraduate institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notes and Comments:

- 1) Are there additional items that should be added to this section or be removed from this section?
- 2) Are the items clear and easily understandable?

APPENDIX E
ALUMNI LOYALTY SCALE
FOR PILOT STUDY

Alumni Loyalty Scale

Thank you for agreeing to complete this survey and provide valuable information regarding your experience and feelings toward your undergraduate alma mater. Your responses to the questions/statements below will assist universities in determining those areas that affect alumni attitudes the most and assist institutions in maintaining relationships with their most valuable asset, their alumni. Please understand that the information you provide will be confidential and will not be shared with any other identified higher education institutions or other third parties.

1. What undergraduate institution did you graduate from? _____

2. What year did you graduate from your undergraduate alma mater? _____

3. How many years did you spend at your undergraduate alma mater? _____

4. Highest Degree Completed:

☐ Bachelors

☐ Masters

☐ Doctoral

☐ Other _____

If two or more degrees were completed,
were these received at different institutions?

☐ Yes, different institutions

☐ No, the same institution

5. How far do you currently live from your undergraduate alma mater? _____ Miles

6. Gender: ☐ Male ☐ Female

7. Did you receive student loans (money to be paid back) while attending your undergraduate alma mater? ☐ Yes ☐ No ☐ Don't Know

8. Did you receive scholarships or grants from your undergraduate institution? ☐ Yes ☐ No ☐ Don't Know

9. Did your parents or grandparents attend your undergraduate alma mater? ☐ Yes ☐ No ☐ Don't Know

10. Are you currently working in the field for which you received your degree? ☐ Yes ☐ No ☐ Don't Know

11. Are you a member of your undergraduate alma mater's alumni association? ☐ Yes ☐ No ☐ Don't Know

12. Have you made a financial gift to your alma mater in the last 24 months? ☐ Yes ☐ No ☐ Don't Know

Student Experience Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.		STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
My family played a substantial role in selecting my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My experience as an undergraduate student met my expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I often participated in extracurricular activities outside of the classroom while I was a student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intercollegiate athletics played a significant role at my undergraduate alma mater, for me personally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoyed my time as an undergraduate student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The faculty and staff cared about my success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems I encountered throughout the education process were adequately addressed by the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The activities and services I needed as a student were available to me through the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I completed my degree within the time frame that I anticipated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater provided me with a quality education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution prepared me to find a job after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I still feel like I am part of the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Alumni Experience Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
My undergraduate degree prepared me for success after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate education is what got me where I am today.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Working in the field in which I graduated is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution provided adequate assistance to me in finding a job after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with where I am professionally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel a sense of loyalty to my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supporting my undergraduate alma mater financially is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supporting my undergraduate alma mater by volunteering my time is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can have a role in providing support to current students at my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Staying Connected Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
I feel like my undergraduate alma mater cares about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Constant communication from my alma mater is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I want to feel like I am still a part of my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My institution does a good job in keeping me connected to what is going on around campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Institutional Reputation Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
The public reputation of the institution is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater has a good reputation within its local community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater has a good reputation nationally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The reputation of the institution affects the perceived quality and value of my degree.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation was an important factor in selecting my undergraduate institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for taking the time to complete the Alumni Loyalty Scale. The information will be extremely valuable in developing an instrument to assist institutions in better serving their students and alumni. All information provided in your responses will be kept confidential and will only be viewed by the researcher conducting the study.

APPENDIX F

INITIAL EMAIL AND REMINDERS TO REQUEST
PARTICIPATION IN PILOT STUDY

Initial Email Sent November 22, 2011
Yielding 348 Complete Responses

Dear [First Name],

Many factors influence how students and alumni value their relationship with their undergraduate institutions. In an effort to better understand these factors, you have been selected to participate in the pilot study for the Alumni Loyalty Scale. Click on the link below to begin the survey. This will take less than 10 minutes to complete and no personally identifiable information will be collected. All responses will remain confidential.

<http://www.alumnisurvey.org>

Your participation in this research is completely voluntary. Thank you for taking the time to share your thoughts and opinions. This pilot study is being conducted as part of IRB Protocol # X110426007. For additional information on this study or the associated IRB protocol please email irb@alumnisurvey.org.

This message was sent to [potential respondent's email address] from Jennifer Breland, Hoover, Al 35226. To unsubscribe, click [here](#).

First Reminder Email Sent November 29, 2011
Yields 441 Complete Responses

Dear [First Name],

Last week you were selected to participate in the pilot study for the Alumni Loyalty Scale. I would value your thoughts and opinions on the many factors that influence how students and alumni value their relationship with their undergraduate institutions. Click on the link below to begin the survey. This will take less than 10 minutes to complete and no personally identifiable information will be collected. All responses will remain confidential.

<http://www.alumnisurvey.org>

This pilot study is being conducted as part of IRB Protocol # X110426007. For additional information on this study or the associated IRB protocol please email irb@alumnisurvey.org. Your participation in this research is completely voluntary.

This message was sent to [potential respondent's email address] from Jennifer Breland, Hoover, Al 35226. To unsubscribe, click [here](#).

Second Reminder Email Sent December 6, 2011
Yields 240 Complete Responses

Dear [First Name],

This is the final week for collecting responses in the pilot study for the Alumni Loyalty Scale. The survey is set to close at midnight Saturday. If you had the opportunity to complete the survey, thank you so much.

If you have not, I would value your thoughts and opinions on the many factors that influence how students and alumni value the relationship with their undergraduate institutions. Please consider participating by clicking on the link below to begin the survey. The survey takes less than 10 minutes to complete and no personally identifiable information will be collected. All responses will remain confidential.

<http://www.alumnisurvey.org>

This pilot study is being conducted as part of IRB Protocol # X110426007. For additional information on this study or the associated IRB protocol please email irb@alumnisurvey.org. Your participation in this research is completely voluntary.

This message was sent to [potential respondent's email address] from Jennifer Breland, Hoover, Al 35226. To unsubscribe, click [here](#).

APPENDIX G
FINAL VERSION
ALUMNI LOYALTY SCALE

Alumni Loyalty Scale

Thank you for agreeing to complete this survey and provide valuable information regarding your experience and feelings toward your undergraduate alma mater. Your responses to the questions/statements below will assist universities in determining those areas that affect alumni attitudes the most and assist institutions in maintaining relationships with their most valuable asset, their alumni. Please understand that the information you provide will be confidential and will not be shared with any other identified higher education institutions or other third parties.

1. What undergraduate institution did you graduate from? _____

2. What year did you graduate from your undergraduate alma mater? _____

3. How many years did you spend at your undergraduate alma mater? _____

4. Highest Degree Completed:

☐ Bachelors

☐ Masters

☐ Doctoral

☐ Other _____

If two or more degrees were completed,
were these received at different institutions?

☐ Yes, different institutions

☐ No, the same institution

5. How far do you currently live from your undergraduate alma mater? _____ Miles

6. Gender: ☐ Male ☐ Female

7. Did you receive student loans (money to be paid back) while attending your undergraduate alma mater? ☐ Yes ☐ No ☐ Don't Know

8. Did you receive scholarships or grants from your undergraduate institution? ☐ Yes ☐ No ☐ Don't Know

9. Did your parents or grandparents attend your undergraduate alma mater? ☐ Yes ☐ No ☐ Don't Know

10. Are you currently working in the field for which you received your degree? ☐ Yes ☐ No ☐ Don't Know

11. Are you a member of your undergraduate alma mater's alumni association? ☐ Yes ☐ No ☐ Don't Know

12. Have you made a financial gift to your alma mater in the last 24 months? ☐ Yes ☐ No ☐ Don't Know

Student Experience Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
My experience as an undergraduate student met my expectations.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I enjoyed my time as an undergraduate student.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The faculty and staff cared about my success.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Problems I encountered throughout the education process were adequately addressed by the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The activities and services I needed as a student were available to me through the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate alma mater provided me with a quality education.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution prepared me to find a job after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate education is what got me where I am today.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My undergraduate degree prepared me for success after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The institution provided adequate assistance to me in finding a job after graduation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My institution does a good job in keeping me connected to what is going on around campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Alumni Perspective Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.		STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
I still feel like I am part of the institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel a sense of loyalty to my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Supporting my undergraduate alma mater financially is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Supporting my undergraduate alma mater by volunteering my time is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel that I owe my support to my undergraduate alma mater for what it has provided to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I can have a role in providing support to current students at my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel like my undergraduate alma mater cares about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Constant communication from my alma mater is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I want to feel like I am still a part of my undergraduate alma mater.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Institutional Reputation Please read each of the following statements and select the response that most closely represents your feeling towards your undergraduate alma mater. Indicate whether you strongly agree, agree, somewhat agree, somewhat disagree, disagree, or strongly disagree. It is important that you answer each question. If you need time to think about it you can skip the question and come back to it later.		STRONGLY AGREE	AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE
The public reputation of the institution is important to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
My undergraduate alma mater has a good reputation nationally.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The reputation of the institution affects the perceived quality and value of my degree.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Reputation was an important factor in selecting my undergraduate institution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

APPENDIX H
INSTITUTIONAL REVIEW BOARD
APPROVAL DOCUMENTATION



Institutional Review Board for Human Use

Form 4: IRB Approval Form
Identification and Certification of Research
Projects Involving Human Subjects

UAB's Institutional Review Boards for Human Use (IRBs) have an approved Federalwide Assurance with the Office for Human Research Protections (OHRP). The Assurance number is FWA00005960 and it expires on September 29, 2013. The UAB IRBs are also in compliance with 21 CFR Parts 50 and 56.

Principal Investigator: BRELAND, JENNIFER ROGERS

Co-Investigator(s):

Protocol Number: **X110426007**

Protocol Title: *Development and Validation of the Alumni Loyalty Scale*

The IRB reviewed and approved the above named project on 5-20-11. The review was conducted in accordance with UAB's Assurance of Compliance approved by the Department of Health and Human Services. This Project will be subject to Annual continuing review as provided in that Assurance.

This project received EXPEDITED review.

IRB Approval Date: 5-20-11

Date IRB Approval Issued: 5-20-11

Marilyn Doss, M.A.
Vice Chair of the Institutional Review
Board for Human Use (IRB)

Investigators please note:

The IRB approved consent form used in the study must contain the IRB approval date and expiration date.

IRB approval is given for one year unless otherwise noted. For projects subject to annual review research activities may not continue past the one year anniversary of the IRB approval date.

Any modifications in the study methodology, protocol and/or consent form must be submitted for review and approval to the IRB prior to implementation.

Adverse Events and/or unanticipated risks to subjects or others at UAB or other participating institutions must be reported promptly to the IRB.

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