Evaluating The Effectiveness Of The PGA's Professional Gold Management (Pgm) Program

2012

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ABSTRACT

This study explored the relationships between knowledge, skills, ability, self-efficacy, and experiential learning and performance expectations and satisfaction. The purpose of this study was threefold. First, the study attempted to understand the motivators for student motivation to recommend the program. Second, the study looked at the contribution of both intrinsic and extrinsic motivators for retention and positive word-of-mouth. Further, the research evaluated the relationship of the curriculum in influencing the student’s performance and satisfaction.

The study sample consisted of 676 undergraduate students attending one of six PGA Professional Golf management programs in the spring of 2011. The survey instrument was developed specifically for this study after an extensive literature review of higher education analysis, performance, satisfaction and word-of-mouth. The instrument was constructed in eight content areas: knowledge, skills and abilities (KSA); self-efficacy; experiential learning; performance; satisfaction, and word-of-mouth.

The findings indicated that experiential learning and to a lesser degree ability made the strongest contribution to the student’s performance and satisfaction. Focus of degree was a predictor of performance while not a predictor of satisfaction. Satisfaction and to a lesser degree performance were strong contributors to the student’s word-of-mouth. Finally, self-efficacy was found to have little relationship to satisfaction or performance contrary to findings in previous research.
This thesis is dedicated to my wife Barbara, who has been a constant support in my academic pursuits. In addition, to my two sons, Alex and Tyler; who unknowingly helped me to complete my Master’s in an effort to graduate before they completed their degrees.
ACKNOWLEDGMENTS

Although the title page only allows for the inclusion of one author, I must acknowledge some of the large number of people who were instrumental in helping me to complete this process. First and foremost my thesis committee, who took a raw researcher and truly helped him understand the process and logic behind all of the effort. Dr. Wang, I thank you for always believing that I could achieve more and reach further than even I thought possible. Your generous gift of your time even after taking over many new and additional responsibilities was greatly appreciated.

Dr. Hua, I thank you for staying on my committee even after changing employment and your suggestions for statistical analysis were always timely and appreciated. Dr. Fjelstul, it was you who actually helped convince me to pursue a graduate degree after working with you in the attempt to bring a PGM program to the Rosen College (I’m sorry we weren’t successful in that project but I think we both learned much from the experience).

I also need to recognize three professors at the Rosen College who also had a profound influence on me in my pursuit of my Master’s. First, Dr. Po-Ju Chen, my fellow Nittany Lion, who convinced me to create my first conference paper which was accepted for the Graduate Student Conference. Second, Dr. Fevzi Okumus who was always asking me how my work was going and was always there when I needed someone to prop me up. Last but not least, Dr. Paul Rompf; who taught me to always review your work and to never give up. To all of these people and many more, I am forever grateful for the encouragement and support all along the way. I hope I met your expectations and faith in me.
# TABLE OF CONTENTS

LIST OF FIGURES .................................................................................................................. v

LIST OF TABLES .................................................................................................................... vi

CHAPTER ONE: INTRODUCTION ............................................................................................ 1
  Statement of the Problem ........................................................................................................ 3
  Research Significance of the Study .......................................................................................... 5
  Organization of the Study ....................................................................................................... 5
  Definition of Terms .................................................................................................................. 6
  Summary .................................................................................................................................. 8

CHAPTER TWO: LITERATURE REVIEW .................................................................................. 9
  Golf Industry and Golf Education ............................................................................................ 9
  Professional Golf Management Curricula .............................................................................. 12
  Evaluation of the Quality of PGM Education ...................................................................... 13
  Importance and Performance Analysis ................................................................................. 14
  Knowledge, Skills and Abilities (KSA) .................................................................................. 17
  Self-Efficacy .......................................................................................................................... 20
  Experiential Learning ............................................................................................................. 23
  Performance ........................................................................................................................... 27
  Satisfaction .............................................................................................................................. 29
  Word-of-Mouth ...................................................................................................................... 32
## LIST OF FIGURES

Figure 1: IPA Analysis (adapted from Martilla and James, 1977), .......................................................... 15

Figure 2: Conceptual framework for evaluating the quality of the PGM education ..................... 17

Figure 3: Revised framework for evaluating the quality of the PGM education.......................... 43

Figure 4: Knowledge, Skills and Ability- Importance and Performance (Table 3 for coordinates)

.......................................................................................................................................................... 56
LIST OF TABLES

Table 1: PGM Students Demographic Information ................................................................. 46
Table 2: Descriptive Statistics for KSA Performance Scales ....................................................... 51
Table 3: Paired t-test of Importance and Performance Analysis ................................................... 53
Table 4: Model Summary ........................................................................................................ 58
Table 5: Regression Analysis of Performance on Knowledge, Skill, Ability, ............................. 58
Table 6: Model Summary ........................................................................................................ 60
Table 7: Regression Analysis of Satisfaction on Knowledge, Skill, Ability, Self-efficacy, and Experiential learning ........................................................................................................... 60
Table 8: Model Summary ........................................................................................................ 62
Table 9: Regression Analysis of Word-of-Mouth on Satisfaction and Performance .................. 62
LIST OF ACRONYMS/ABBREVIATIONS

**IPA:** Importance & Performance Analysis

**KSA:** defined as knowledge, skills and abilities of the student’s

**PAT:** defined as the Players Ability Test which is the 36-hole tournament that students must take and score lower than a target score as a requirement for graduation from the PGM program

**PGA:** defined as the Professional Golfers Association of America which certifies golf professionals and is the governing body for the PGM programs.

**PGM:** defined as the Professional Golf Management program. A four and one half year degree program overseen by the PGA to produce graduates for the golf industry.
CHAPTER ONE: INTRODUCTION

With higher education institutions enjoying an increase in enrollment due to the number of students entering or returning to college during these current tough economic times, institutions are faced with the age old dilemma of how to retain the students. Institutions have put an increasing emphasis on student satisfaction as a means of achieving retention and have also begun to look at a number of methods outside of education to achieve this end (Jensen, 2011).

Many institutions have begun to view the student as a consumer in the educational process not unlike the typical consumer in any other business or retail environment. According to Becket and Brookes (2008) many of the programs used in the business environment are now being utilized in the educational setting including Total Quality Management (TQM). The goal of total quality management (TQM) in higher education is to develop the best program and deliver high quality services or exceed the customers (students) expectations (Spanbauer, 1992). In the TQM model, students are viewed as consumers with the goal of developing and increasing expectations and then satisfying those ideals.

With over 15,979 golf courses in the United States (NGF, 2010) the Professional Golf Association of America (PGA) is the organization that is charged with developing and growing the game at these facilities. In 1975, the PGA began developing a degree program in golf management at Ferris State University in Michigan. The program sought to develop a university educational degree that would prepare students to become golf professionals after graduation. Prior to this program, most professionals started in the business and worked their way up resulting in a number of professionals who might have lacked many of the critical skills needed
in the current club environment. Today, there are programs at 20 universities with over 4000
students (PGA, 2010). The mission in these schools is to develop students who are prepared to
enter the golf profession. There continues to be a demand for students entering into the
profession, as evidenced by 70% of golf club managers in a recent survey indicating that there
were not enough qualified applicants for vacant entry level management positions (Fjelstul,
2007).

The golf industry is very similar to the hospitality industry, in general, and many people
leave the field for the same reasons, such as unsuitable working hours, and poor financial
compensation (O’Leary, Dugan, 2005). In the hospitality industry, the ever-evolving
complexities and rapid growth have contributed to educational programs that vary immensely in
their design (Ricci, 2010). In order to understand the wide variety of programs teaching these
future golf managers we only have to look at the schools at which each of the 20 programs is
housed. These include business, recreation and park management, agriculture, hospitality, and
resort management. With this wide variety it would appear to be difficult to develop a consistent
curriculum to meet the student’s expectations and satisfy their needs as well.

The Professional Golf Management (PGM) curricula develop students to become the
future leaders of the golf industry at the club level. It is a four and a half year program consisting
of classroom instruction as well as 16-months of pedagogical work through four separate
internship experiences. Programs are limited to a maximum of 300 students with no more than
100 in each incoming class (PGA, 2010).

While the PGA has a very large database of existing information to quantify some of the
success of the students who come through the program, they do not have research data to
effectively support their contention that the program is meeting the needs of these students in the
program. According to Randy Serbin, PGA Research Manager, very little research has been done on the ability of the programs to meet the expectations of current students (R. Serbin, personal communication, November 20, 2009). They do however promote the fact that there is a 100% placement of graduates at the end of the student’s program (PGA, 2011). This chapter provides an overview of a study designed to examine the relationship between KSA, self-efficacy, experiential learning and performance and satisfaction on the student’s word-of-mouth. In essence, the closer a student’s evaluation of their performance align with their satisfaction the more effective the PGM programs are in meeting the student’s needs leading to the students recommending the program.

**Statement of the Problem**

The PGA has developed the PGM curriculum which is taught at 20 universities with the intent to develop students to enter the golf industry as assistant professionals, while attempting to provide them with the tools to succeed in this profession. While there is almost no research with regard to this particular degree path, this study will look at research in other fields and correlate those findings to this education.

Much of the present research on evaluating educational quality has focused on many of the variables that were established in the work of Assante, Huffman & Harp (2008). That research led to a composite of quality indicators by conducting focus groups with hospitality educators and practitioners. These indicators provide a starting point for understanding the competencies outlined in Fjelstul’s (2008) work. Purdue, Ninemeir, and Woods (2000) found that the top ten competencies needed by club managers were: budgeting, analyzing financial statements, behaving professionally, controlling food and beverage operations, relating to
employees, chief operating officer/general manager execute strategies, supervising tactics, implementing labor cost controls, calculating of actual F & B costs, and communicating with employees. Quality can be broadly defined as excellent or superior. While quality in the education field is complex and there have been difficulties in developing adequate models to measure, assess and rank the attributes; customer satisfaction is one method for evaluating the institution’s effectiveness. Zeithaml, Parasuraman, and Berry (1990) suggest that customers define the most important criterion of service quality. Therefore, it is critical that universities understand who their customer is, in an effort to exceed their expectations.

There has been a great deal of study related to retention in higher education primarily based on the work of Vincent Tinto (1975). His research was grounded in the academic and social cognitive concepts related to a student’s commitment to remain in school based on the level of connection they had with the university. However, there has been limited educational effectiveness research (EER) specifically with regard to developing models to illustrate the dynamic character of educational processes and effects (Kyriakides & Creemer, 2006).

Ajzen and Fishbein (1980) found that attitudes predict behavior intentions which then predict actual behavior. In support of this, Keaveney and Young (1977) found that student satisfaction leads to an intention to stay and as a result an increase in student retention.

While the model posited here is different from previous studies, it incorporates a set of independent variables hypothesized to predict student satisfaction and as a result retention. The framework in this study will provide a basis for developing an understanding on the success of the PGM programs from the views of the students. Satisfaction and performance are two dependent variables in the model. Knowledge, skills and ability (KSA), self-efficacy, and experiential learning are the independent variables in the model affecting satisfaction and
performance. The resulting gap analysis between satisfaction and performance expectation will also indicate the relative performance of the PGM programs. Lastly, word-of-mouth will be used to indicate the student’s evaluation of the program.

**Research Significance of the Study**

This study builds on the limited body of literature in this field and establishes a starting point for future research related to the PGM education. It identifies the current motivators for the students with regard to their performance and satisfaction and helps these universities understand the motivators for success for future students in the program.

This study also examines the effects of demographic variables such as gender, age, and class standing on the student’s performance and satisfaction with the PGM program. Specifically this study evaluated the effectiveness and contribution of three constructs to the student’s expectation and satisfaction; knowledge, skills and abilities; experiential learning experiences; and self-efficacy. In addition, it examined the differences between groups with different levels of experiences; and determined which variable had the largest impact on their performance and satisfaction which in turn influenced their word-of-mouth.

**Organization of the Study**

Chapter One in the study introduces the problem, the design of the study, and the research significance for this project. Chapter Two reviews the relevant literature for supporting this study. The research questions and procedures for collecting and analyzing the data are presented in Chapter Three. Chapter Four contains the presentation of the results of the research and finally, Chapter Five will contain a summary of the findings, conclusions, implications for practitioners, survey limitations, and recommendations for future research.
**Definition of Terms**

**Ability:** defined as a person’s acumen for producing results and a competency held to by recent students in the PGM program; the mean score was garnered through the averaging of individual item responses on a Likert-type scale designed to measure this competency. The Likert-type scale ranged from 1 Strongly Disagree to 5 Strongly Agree.

**Expectations:** customer expectations are pretrial beliefs about a product or service (Olson and Dover 1979) that serve as standards or reference points against which product performance is judged.

**Experiential learning:** defined as structured, student-centered, integrated curriculum-based educational experiences utilizing practical applications and active involvement that occur outside of the classroom setting (Beard, 2007).

**Importance and Performance Score:** a concept developed by Martilla & James (1977) that measures a consumer’s satisfaction as a function of both expectations concerning the significant attributes and judgments about their performance.
Internship: defined as the 16-months the PGM students spend at golf facilities during their degree programs. During this time students receive monetary compensation as well as educational credit.

Importance: implies a quality or character that should mark a thing as important but that is not self-evident and may or may not be recognized. One aspect of an important/performance scale (Merriam-Webster, 2011).

Knowledge: A competency held to by recent students in the PGM program; the mean score was garnered through the averaging of individual item responses on a Likert-type scale designed to measure this competency. The Likert-type scale ranged from 1 Strongly Disagree to 5 Strongly Agree.

Performance: The second component in an Importance Performance Score. This is a measure of performance against the perceived importance of the item.

Self-efficacy: As defined by Bandura (1997): “the belief in one’s capability to organize and execute the action required to produce given attainments”
Skills: Having knowledge in a specialized area. In addition, a competency held to by recent students in the PGM program; the mean score was garnered through the averaging of individual item responses on a Likert-type scale designed to measure this competency. The Likert-type scale ranged from 1 Strongly Disagree to 5 Strongly Agree.

Summary

Chapter One provided the introduction of variables, definition of terms and rationale for the study. A statement of the problem, the purpose of the study and significance of the study were also outlined as well. Research hypotheses were also included along with the study’s purpose. Chapter Two reviews the literature and research as it relates to KSA, self-efficacy, experiential learning, performance, satisfaction and word-of-mouth.
CHAPTER TWO: LITERATURE REVIEW

The review of literature will provide the foundation for a focused research and will be presented in sections related to the following concepts: the golf industry and golf education, Professional Golf Management curricula, evaluation of the quality of the PGM education, IPA analysis, word-of-mouth, knowledge, skills and abilities (KSA), self-efficacy, experiential learning, performance, and satisfaction.

Golf Industry and Golf Education

The golf industry has been suffering from a general economic decline in the last several years as have most businesses in the American economy. Participation in the game currently is at 486 million rounds per year in 2009. This is a 0.6% decrease since 2008 and an overall 3% decrease in the last five years (National Golf Foundation, 2011). Currently golf facilities are facing an ever-shrinking inventory with a negative net growth every year since 2000 (NGF, 2011). At the current pace this will result in a contraction of over 1000 facilities in the next five to ten years. Students who are currently enrolled in one of the 20 PGA Professional Golf Management programs find themselves preparing for an industry that is continually shrinking and becoming even more competitive for the potential graduates. As noted by then-PGA Secretary Ted Bishop during his report at the PGA Annual Meeting in November of 2010, the number of PGA Golf Management students has not kept pace with the significant decline in the number of apprentices that has taken place over the past several years. Thus, we are seeing a decrease in the number of new members being elected annually (PGALinks, 2011).

In addition, there are a variety of ways that a potential student can enter the golf industry and obtain employment. The first method is for a person to begin working at a golf facility
(usually on the outside operations staff). They will then continue to put in time and effort until they can obtain a position on the inside operation staff as a shop clerk or assistant golf professional.

The second method is for a person to enroll in one of the many “Golf Management” type programs similar to those that are offered by organizations like the Golf Academies of America. This group has four locations serving over 1,000 students and a tuition of around $7,800 a semester exclusive of housing. The program claims an 85% employment rate for their graduates (Golf Academy of America, 2011). The programs offer the students an Associate’s degree upon their completion of the program but the students will not have completed any of their PGA requirements for obtaining membership upon graduation. At that point students would have to find employment in the industry and begin serving their 6-month pre-enrollment period before beginning their Level 1 PGA work.

The third option is for an individual to attend one of the 20 PGA Professional Golf Management programs currently offered. They would then complete the requirements for their degrees and enter the industry. The PGM programs intertwine a college degree in a variety of disciplines with the PGA educational requirements. Students will complete a 16-month internship experience at golf facilities and include a number of educational seminars as well. Once a student has completed his degree and PGA requirements they can be elected to membership in the PGA. The PGM programs are a fairly new phenomenon with the first university opening its doors at Ferris State University in 1975. The programs grew at a fairly slow rate initially with the Pennsylvania State University becoming the fourth program in 1990. The expansion however, increased rapidly between 1999 and 2006 with 14 new universities starting a PGM program. Currently there are 20 total PGM programs operated by the PGA.
This rapid growth paralleled a similar phenomenon in the hospitality industry in the 1980’s and 1990’s when a large number of universities established programs to meet the growing demand in their industry. They too faced a similar problem with these programs having a wide variety in curricula and employers trying to identify if these graduates all had the same skill set. With the variety of the schools housing PGM programs and the latitude each of these universities have, it is difficult to establish graduates with a consistent skill set. Without this consistency in structure it makes it difficult for employers to know which job competencies that these graduates possess.

The golf industry, like the hospitality industry, is faced with the constant challenge of recruitment and retaining valued employees. Many of the employees, who have been attracted to the industry historically, have been employees who were looking for an easy job where they could play golf whenever they wanted. Today’s business could not be further from that ideal. Today golf is strictly viewed as a business and one that must contribute to the bottom line. The employees in these organizations are tasked with the fulfillment of generating profits for their owners and members. Many of the professionals of today, especially in management positions play very little golf. That is why it is critical that the PGM programs are producing graduates who are able to prosper in this new workplace environment. This need for better talent management is what drove the PGA to develop these programs in the first place.

The golf business is a very large player in the U.S. economy. In 2000, the golf economy accounted for $62 billion of goods and services according to SRI International’s Peter Ryan in a report to the GOLF 20/20 conference in St. Augustine, Florida. In comparison to other industries that year, the golf industry fared very well. The motion picture and sound industry measured
$57.8 billion and the amusement, gambling, and the recreation industry measured about $55.9 billion according to the government census data for 2000.

In this study, we are evaluating the students currently enrolled in the PGA’s Professional Golf Management programs. This study will evaluate if the PGA’s program is effectively meeting the student’s expectations and satisfying them as well.

**Professional Golf Management Curricula**

While the PGA’s Professional Golf Management program has a general core with its requirements including courses in business, agronomy, and retail and marketing; each university supplements this core structure with its own area of emphasis. Currently within the 20 existing PGM universities are a wide variety of colleges housing the degree program. These include schools in business, marketing, agriculture, health & human development, and parks & recreation.

While there would be a disagreement on whether students in the PGM programs would need to understand the business competencies required of a club manager, in essence these competencies would be valuable to anyone in the industry. It would also be important for educators in these programs to understand if they are reaching and exceeding their student’s expectations. Therefore, it is essential that we evaluate whether the wide-ranging curriculum is doing an adequate job of meeting the needs of its consumers.

Again, while the students have a basic core requirement that the PGA requires in the PGM program, each of the universities are free to build a degree around those in a variety of disciplines. This research will evaluate whether those differences play a role in the student’s performance and satisfaction with the program.
Evaluation of the Quality of PGM Education

Evaluation of the quality of education is an area of broad study in the research community today. The emphasis on accountability and quality assessment in education is constant and ever-changing. These areas of assessment in the current environment include areas such as educational outcomes, student learning, student satisfaction, program effectiveness and overall educational experiences.

Educational administrators and institutions now focus on accurately measuring service quality and establishing methods improving quality to achieve competitive advantage and build customer loyalty (Bitner, 1993). While the measurement of service quality is the primary focus, the environment of the construct often makes it difficult to define and measure (Parasuraman et al., 1985; Bolton and Drew, 1991).

According to Abdullah (2005) the majority of researchers acknowledge that customers have expectations that they use as reference points for evaluating an organization. Part of the difficulty in attempting to implement quality management within a university is because of the interactions and relationships between teaching and learning. It would seem that any model of quality management would have to incorporate all of these attributes.

It is critical that educational institutions are able to clearly transform their students and provide a collegial and supportive culture to create widespread student involvement. Today's employers are constantly looking for graduates with the potential to not only help but to transform organizations. This will require skills to be able to integrate knowledge and problem solving congruently in different domains (Srikanthan and Dalrymple 2007).

According to Pizam and Ellis (1999) most theories regarding customer satisfaction are “based on cognitive psychology and while some have received moderate attention, others have been
introduced without any empirical research”. This study hopes to continue to build on the previous research in this area.

**Importance and Performance Analysis**

This research will compare the gap that exists between the student’s importance and performance evaluations in a number of areas. Importance-performance analysis (IPA) is a widely used analytical technique developed by Martilla and James (1977) that allows for the interpretation for the management of customer satisfaction. In their model, product or service attributes are divided into four groups based on their performance (high/low) and their importance to the customer (high/low).

The model depicted in Figure 1, shows that the analysis will yield prescriptions for four strategies based on where an attribute falls on the scale.
The versatility of the IPA technique has been reported in a wide range of applications including: hotel service quality (Deng and Pei, 2009), guest technologies in the lodging industry (Beldona and Cobanoglu, 2007), short break holiday destination attributes (Pike, 2002), employee satisfaction (Graf, Hemmasi, and Neilsen, 1992), and tourism policy (Evans and Chon, 1989). The development of the attributes to measure is critical to the success of the scale and in this research the initial attributes were screened through a focus group study. This study was conducted with a number of PGA professionals who represented typical employers that would be hiring graduates of a PGM program.
These attributes were then incorporated into the survey with a five point Likert scale to evaluate the student’s importance and performance evaluations with regard to these attributes. These attributes were condensed to the three questions which incorporated 23 items to measure the student’s knowledge, skills and ability areas. The development of these scale items was based on a previous scale developed by Peter Ricci (2005).

The overall evaluation of the quality of the PGM education was formulated with the construction of the model depicted in Figure 2. The constructs being measured to affect the overall quality are the student’s performance, and satisfaction with their PGM education demonstrated through their word-of-mouth. This research is also evaluating the constructs of knowledge, skills and abilities (KSA), self-efficacy, and experiential learning and their influences on the student’s performance perceptions and satisfaction as well.

The model in Figure 2 depicts three influencers upon the student’s performance and satisfaction. The first influencer is self-efficacy, which are characteristics that the students arrive at the university and begin their PGM program with. The second influencer is the knowledge, skills and abilities (KSA) that they are developing through their time in the classroom. Finally, the third influencer is their experiential learning which is developed through the internships that are completed outside of the classroom. The development of this framework for modeling the relationship between service quality and a willingness to recommend a service was based on an extensive literature review. Although the frameworks for service quality have been well established, those in the HE environment can use some additional exploration.

The literature review that follows will support the model and the development of these constructs as a method for evaluating the effectiveness of the PGM program in meeting the needs
of its current students. It will also allow us to establish areas that would indicate a need for improvement in the current curriculum.

![Conceptual framework for evaluating the quality of the PGM education](image)

**Figure 2: Conceptual framework for evaluating the quality of the PGM education**

**Knowledge, Skills and Abilities (KSA)**

For years, researchers have studied the knowledge, skills, and abilities (KSA’s) required for achieving success in the hospitality industry (Tas, 1988; Brownell, 1994; Perdue et al., 2000; Chung-Herrera et al., 2003). Hospitality management is the term for the business management disciplines which include hospitality-related services to travelers, visitors and guests (Walker,
1999). By extension, the golf industry requires many of these same attributes in developing successful managers of golf operations. KSA’s and job competencies are often used interchangeably. KSA’s are competencies in which students are expected to have a strong base. High turnover in the golf and hospitality industry in general require that graduates have a demonstrated command of these areas. While many studies have been done evaluating KSA’s from the employer’s perspective this study looked at whether or not colleges were preparing the students from the student’s point of view.

The golf industry looks to the PGA’s PGM programs to develop golf managers with the requisite skills to fill the entry level positions in the field. These programs utilize competency modeling for training and leadership development within these programs. The first step in developing a program is to define the competencies required for graduates (Gale & Pol, 1975). Tas (1988) defined competencies as those activities and skills judged essential to perform the duties of a specific position.

Fjelstul and Tesone (2008) found that hospitality research on competencies has centered historically on hotels, restaurants and theme parks. To date there has been very little research in the golf field particularly within the PGM education programs. It is essential that the PGM programs develop a list of these competencies because as Chung-Herrera, Enz, & Lakaw (2003) concluded, “using industry wide competency models could help educators develop curriculum to meet the needs of the industry”. McClelland (1973) also claimed that competencies and individual characteristics are a predictor of successful job performance.

In Fjelstul’s (2008) work, the author mentioned that “one of the underrated components of the hospitality literature is the relationship of educational factors to potential industry success”

In Purdue et al’s (2000) research they evaluated the critical competencies required for successful club managers. This study found that budgeting, the ability to read financial statements, professional behavior, control of F & B operations, and employee relations to be the top five skill areas required for a successful manager. While Fjelstul’s (2008) research found that many of the competencies identified in the hospitality industry are similar to those required in the club industry, she also determined that one of the critical components is the transmission of realistic job expectations to the students. Barnett and Coate (2005) feel that in an effort to maximize higher education’s value to the economy, “that institutions have developed economically valuable skills in students at the expense of both knowledge and criticality and autonomy”.

Tesone and Ricci (2005) found that graduates often arrive at their new positions with an unrealistic expectation of their job and their future. This can be a contributing factor to employee turnover. The golf industry suffers from many of the negative attributes of the hospitality industry including low pay, long hours, minimal benefits, and limited opportunities for advancement. Turnover rates in the golf industry are similar to those in the general hospitality industry as a whole.

Researchers have also found that the competencies of managers continue to evolve and that human resource skills may be losing ground to marketing and financial management (Kay and Moncarz, 2004). Therefore it is critical that universities are aligning their graduate competencies with the requirement of potential employers in the industry. Once again, with the PGA conducting their PGM education at such a diverse range of university programs it is
difficult to believe that all of the competencies are being met equally for all of the graduates of the program. In analyzing the students we will also be able to determine if the choice of major within the PGM program has an impact on the dependent variables as well.

Therefore based on the literature review the researcher anticipates finding that performance will be positively correlated with satisfaction. That is to say that as the student’s performance evaluations increase then satisfaction will increase.

**Self-Efficacy**

“Perceived self-efficacy is defined as people’s beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives” (Bandura 1994). These beliefs will have a large impact on how a person behaves. These include cognitive, motivational, affective and selection processes (Bandura, 1994). Perseverance associated with a high self-efficacy is likely to lead to improved performance. Graham and Weiner (1996) have concluded that self-efficacy is a far better predictor of behavior than any other motivational factor.

A strong self-efficacy is able to enhance a student’s accomplishments in a variety of ways. They are typically able to set higher goals and able to maintain a focus on these goals even during periods of setbacks. A strong self-efficacy is critical to college students who are beginning their academic careers away from home. A strong self-efficacy will allow these students to be able to reduce their stress and lower their incidents of depression (Bandura, 1994). The most effective way of creating self-efficacy is through mastery experiences. People who continue to experience success will strengthen their self-efficacy. By the converse, failures especially before a solid foundation is built will tend to reduce a person’s self-efficacy. For the
process to be most productive a person must experience some failures along the way in order to develop a strong self-efficacy. A person who only experiences easy successes will not build the same strength.

The second method for developing self-efficacy is through vicarious modeling of other people (Bandura, 1994). If a person sees a person who they determine to be similar to them achieving results they might infer that they would be able to achieve the results as well. Again, conversely if someone sees a person similar to themselves not being able to complete a task or not achieving results then they could believe that they might not succeed as well. In Bandura’s work (1994) he found that the effect is strongest when the model the person is observing is considered very similar to them.

The third method for strengthening a person’s beliefs is through social persuasion. By being told verbally that a person has the capabilities to complete a task, self-efficacy is raised. Unfortunately, this method probably has the shortest lasting effect especially in the face of any adversity. This method will allow a person to expend greater effort in trying to achieve results than those who have no prompting and are left to their own disbeliefs. People who are faced with these disappointments are more prone to avoid situations that would place them in a position to fail.

According to Abele and Spurk (2008) accomplishment and positive well-being require an optimistic sense of personal efficacy. This is because life in general is not easy. It is full of difficulties and challenges that must be continually dealt with. People with a high self-efficacy command the ability to stick it out through the difficult periods.

Peers are a major influence on a person’s self-efficacy as well. People will tend to associate with others of similar interest and this will promote the self-efficacy of shared interests.
and goals while excluding those unshared areas from development. That is why those people that have a limited social network or peers will have a difficult time in increasing their self-efficacy (Abele and Spurk, 2008).

A person cannot be a master of all things; therefore students will differ in their amount of self-efficacy that they develop and in the areas in which they develop it as well. It is an assumption that most of the students in the PGM program have developed their golf self-efficacy to some degree or they probably would've chosen a different major.

Self-efficacy needs to be differentiated from some similar constructs as self-esteem, locus of control, and outcome expectations (Bandura, 2006). Self-efficacy is one's own assessment of a person's capabilities to achieve a given result. This differs from self-esteem which is a person's judgment of their self-worth. Locus of control is concerned with whether a person believes that outcomes are determined by his own self or controlled by outside forces. Self-efficacy is also differentiated from outcome expectations. While self-efficacy is the person's belief in their ability to achieve results, outcome expectations are what would be the results expected from their efforts.

Self-efficacy and its inherent development of persistence are critical factors in persevering not only through the four and a half years of the PGM program but also as one enters the industry as well. The golf industry shares a number of characteristics with the food service industry. Employees are subjected to very low starting wages (averaging less than $20,000 a year), long hours (many working six or seven days a week), and an industry with very high turnover and limited career advancement (Gustafson, 2002). A strong self-efficacy will help those graduates as they enter the industry able to persevere to eventually land one of 15,000 head golf professional positions available in the industry.
Based on the literature review the researcher expects to find a correlation in the PGM students between self-efficacy and performance. As Lent, Brown and Larkin (1986) noted; it would be useful to study self-efficacy’s effect in mediating the outcomes of different career interventions and to look at devising systematic attempts to enhance career related self-efficacy.

**Experiential Learning**

Experiential learning is in many ways, learning from doing. The original model developed by David Kolb is comprised of four concepts: (1) a concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation. In Kolb’s model he calls for incorporating experiential learning with classroom instruction. This is exactly what the PGM programs seek to accomplish with their 16 months of co-op experience outside of the classroom. The students are expected to be working in positions where they can apply many of the things they have learned in the classroom as well as be able to incorporate some new skills.

There is an immense amount of pressure in today’s higher education environment for improving the quality of learning and assessment from a large number of different constituencies (Weldy & Turnipseed, 2010). Experiential learning, especially in hospitality programs have become a standard component of the curriculum. Petrillose and Montgomery (1998) have recognized that internships are an important component in the hospitality curriculum. Those programs that are better able to integrate their experiential learning component into the coursework are going to be those programs that sustain growth and prosper in the coming years. Already the PGA is seeing some potential attrition with a few of the 20 current PGM programs and it will be imperative to develop a method for delivering solid industry-based knowledge. In a
study by Dopson and Nelson (2003), they found that many industry professionals feel academic programs are not adequate at providing this industry-based knowledge.

Another reason the theory is called “experiential” according to Kolb (1984) is because it is based on the experimental works of Dewey, Lewis and Piaget. Dewey believed that all knowledge is heightened when the content to be studied is centered on real-life situations (Roberts, 2003).

It is universally acknowledged that the qualities of internships are developed within the influence of the three stakeholders: academic institutions (educators), students, and organizations (employers) and without regard for where the actual internships are delivered. While the qualities of the internships are determined by these groups to date there has been very little empirical evidence to assess the quality of these internship experiences.

Internships are becoming a standard part of the curriculum in many degree programs particularly in hospitality management programs. McMullin (1998) found that 162 of the 176 baccalaureate degree programs in hospitality management included experiential learning as part of a degree program. Internships are a required part of all 20 of the PGM programs and include 16 months of co-operative learning experience.

One of the studies that have been done is Deborah Beard’s (2007) work with assessing the internship experiences with accounting students at Southeast Missouri State University. In the accounting profession as in many other disciplines, it is widely recognized that the contribution of experiential learning to the students allow them to integrate their academic knowledge with a variety of practical experiences. They also have the ability to positively reinforce many of the communication and problem-solving skills that they have learned in the classroom as well.
As previously indicated, the PGM program has a required 16-month component of experiential learning contained within the degree requirements. This component is required regardless of which major the student’s degree program is housed. The students are gaining educational credits for these internships as well as being paid for their hours of work. Students are required to complete their internship hours in addition to their classroom work in order to complete their degree.

Internships are valuable tools in helping the PGA to continue to promote their 100% employment placement for students graduating from a PGM program (PGA, 2011). There is also a high correlation between a student’s final internship site and their first employment after graduation. While this is a very high number it is not unusual for internship students, Goodman (1982) reported that a high percentage of interns were offered full-time positions at the same firms where they interned. NACE (2011) reports that “candidates with internship experience were considerably more likely to receive a job offer than their counterparts who did not have any experiential education in their background.”

While the internships are a valuable part of the educational programs there has been very little empirical evidence on the effect of career impact on students. Once again, this is especially true among students who will be entering the golf profession after graduation. Owners and managers in the golf industry however should not be too different from the managers in the hospitality industry when it comes to selecting candidates for positions. Tesone and Ricci (2005) found that 87% of the managers they surveyed in the industry would prefer candidates with a background of work-based experience. Employers in the golf industry are also looking for candidates that have a background and the skill-set to be able to contribute to the success of a facility from the start.
The internship component of the PGM degree also has the potential to influence a student’s work in the classroom in a positive way. According to Morgan (2004) the level of knowledge acquired by students at their experiential learning placement will impact their classroom experience. There is substantial evidence that these experiences affect the students in many positive ways including allowing them to gain greater maturity and confidence to improve problem analysis skills, to have a greater understanding of management, and to develop strong communication skills and attitudes appropriate for career development. Fortunately, the PGA believes strongly in all of these attributes and has incorporated the co-operative experience into all of the programs.

One unique aspect of the internship experience in the PGM program is the student’s ability to structure his use of this component. While the programs prefer that students take their internships individually each summer, many students find it advantageous to combine two of the internships to be able to spend a longer time at one facility. This is preferred by employers as well since they are able to have an employee that will not be leaving a facility as soon as they are becoming accustomed to the operation.

The critical component would be for the faculty in the PGM programs to embrace the experiential learning component and be involved in working toward the common goal of increasing student learning. In many of the programs there are different staffs that supervise the internships from those that are teaching in the classroom. Based on research it would be a benefit for more faculty members to be involved in the experiential learning component. In addition, there needs to be more interaction between the faculty and the individual facilities that employ the students. The act of just having the facility fill out an evaluation of the student on paper is not
the level of interaction that would be required for a deeper development of these future golf managers.

**Performance**

Although students will have different expectations, and there will be multiple determinants on whether their education will be satisfactory, measuring their experience-based performance should be the focus area for this research. One reason would be that experienced-based performance expectations are based on comparative and competitive perceived performances (Roest, 2008). These performance expectations are based on multiple experiences and then stored in memory (Ozanne et al., 1992).

Performance within an educational setting can be measured in a variety of ways. A common method is the input-output method that utilizes performance indicators (PI) for measuring achievement across a period of time. The development of PI’s can be traced back to the manufacturing industry and a relationship between the inputs and outputs (Johnes & Taylor, 1990).

Performance in this study is the student’s perception of the program in providing them with the necessary skills to successfully enter the golf industry. The idea that higher education is in effect a transformation process where students are not only endowed with education but also enhance their self-image, improve their self-esteem and develop a new set of skills and attitudes to equip them for their journey after graduation. In essence, universities have a role to play not only in educating students but in developing them as well. This “value-added” approach looks at the impact of the university in developing students. It is a measure of the difference of where the
students were when they entered the university and where they are as they prepare to leave the university.

With the development of the social cognitive career model (SCCM), Lent, Brown, & Hacket (1994) introduced the role of learning experiences and outcome expectations as a method for predicting the development of vocational interests and career choices. Bandura’s original development of the construct of outcome expectations was influenced by a number of previous psychological theories. Bandura attributed the roots of his self-efficacy theory to Tolman’s (1932) cognitive construct of expectance (Bandura, 1986).

While Fjestul’s and Tesone’s (2008) work identified many of the competencies that are required of golf managers in the industry, it did not address if universities are preparing students in these competencies. As the golf industry continues to grow, expanding research specific to golf club managers will be vital to help identify the potential success of future managers.

Standardized outcomes for a graduate of PGM programs are currently lacking. With the wide-ranging variety of curriculum, it might be difficult to achieve.

Initially, in consumer research Parasuraman et. al (1988) advocated the premise of an ideal expectation; this was later amended to the use of adequate and desired outcomes in service research (Zeithamal et al., 1991). Although consumers and students assess different expectations, a variety of factors will influence their outcome or performance expectations. Since service quality is regarded as a degree of excellence (Zeithaml, 1988) it must be measured along that continuum.

Therefore based on the literature we assume that the student’s performance is positively correlated with their perception of the quality of their PGM education. In addition, we expect to find a positive correlation with their satisfaction as well.
**H1a:** Knowledge positively affects student’s perceived performance of PGM education.

**H1b:** Skills positively affects student’s perceived performance of PGM education.

**H1c:** Ability positively affects student’s perceived performance of PGM education.

**H1d:** Self-efficacy positively affects student’s perceived performance of PGM education.

**H1e:** Experiential learning positively affects student’s perceived performance of PGM education.

**Satisfaction**

Research on satisfaction is extensive in the career development and educational field and factors related to satisfaction have been well studied and documented. Over the years there have been numerous attempts to define service quality and the related concept of customer satisfaction (Oliver, 1980; Tse and Wilton, 1988). Measuring satisfaction within the educational environment was first conducted by Birdie (1944). In Birdie’s work he sought to understand if the expectations of freshman engineering students were being met in a university.

Most of the research in this discipline addressing satisfaction is founded in the Social Cognitive Career Theory (SCCT) (Lent & Brown, 2006). Within SCCT there are several broad categories including personality and affective traits, conditions and outcomes, self-efficacy, the environment, and resources and obstacles that the authors use to help understand satisfaction in work and life. These traits are also applicable to the educational environment as well.

While historically higher education has experienced an almost limitless supply of students, it has varied over the years. During the 1960s there was massive growth for institutions due to the heightened interest created by the strong push and support provided by the federal government.
According to Noel (1994), the 1980s marked the merging of student satisfaction and retention. Some researchers have indicated that there is a benefit for institutions of higher education establishing long-term relationship with existing students (Henning-Thurau, Langner & Hansen, 2001; Rowley, 2003; Tapps. Hicks, & Stone, 2004). With only 20 PGM programs this could provide a strong competitive advantage through word-of-mouth recruitment, alumni giving, and previous students providing employment opportunities for graduates.

According to Alves and Raposo (2008), it is the "responsibility of the institutions of higher education to understand the formation process of student satisfaction and also, to find reliable forms of measuring satisfaction.” The authors also go on to say that “only with reliable measurements can the institutions know their own reality, comparing it with other institutions and analyzing its evolution over time.”

Satisfaction has been studied in a variety of contexts and applications over the years. It is very difficult to find one definition of consumer satisfaction. In this study, we are utilizing the following definition from Tse and Watson (1988);

“The consumer’s response to the evaluation of the perceived discrepancy between prior expectations [where some other form of performance] and the actual performance of the product as perceived after its consumption.”

Another way of approaching it would be using Oliver’s (1997) definition:

“Satisfaction is the consumer’s fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under or over fulfillment.”
Authors have argued for years that in order for an organization to prosper and survive, retention depends heavily on customer satisfaction. In addition, most researchers agree that customer satisfaction involves evaluation and that this evaluation is a result of comparisons (Zeithaml, Berry, & Parasuramaun, 1993). Satisfaction is routinely measured using importance-performance attributes and usually measuring perceived performance against those attributes (Myers and Alpert, 1968). Unfortunately, most of the previous importance-performance studies have focused on only one point in time (Nale, Rauch, Wathen and Barr, 2000).

In today’s university environment it is critical that students are viewed as customers and the end consumers. Satisfaction of service quality is a customer issue. It is the customer, or in this case the students, who will ultimately decide if they have received it. Whether universities like it or not, it does not matter what kind of a job they think they are doing. If the students are not satisfied then the institution has failed.

While it is common for companies to monitor customer satisfaction, within a university setting it is a much rarer occurrence. Customer satisfaction results when actual performance meets or exceeds the customer’s expectations, and conversely if expectations exceed actual performance then dissatisfaction will result. According to Pike and Larkin (2010), in assessing a university’s delivery of services it is necessary to evaluate the student’s expectations across a period of time. In this study we are analyzing the students by class standing in order to determine if there is indeed an impact on the student’s view of the quality of their education over time.

Customer satisfaction evaluation is typically based on the cognitive process in which customers compare their prior expectations to those actually obtained from the product service (Zeithaml, Berry, & Parasuraman, 1993). Consequently, a customer is satisfied when the actual
performance meets or exceeds their expectation. Conversely, if the expectations exceed the actual performance then dis-satisfaction will result.

Even though there is still considerable debate over the relationship between perceived quality and satisfaction, it is still not clear if service quality is an antecedent to satisfaction. However, Oliver (1981) and Bitner (1990) suggest that satisfaction is the antecedent to service quality.

Therefore, based on the literature review we expect to find a positive correlation between the PGM student’s satisfaction and their positive evaluation of their PGM education.

**H1b**: Knowledge positively affects student’s satisfaction with PGM education.

**H1b**: Skills positively affects student’s satisfaction with PGM education.

**H1c**: Ability positively affects student’s satisfaction with PGM education.

**H2b**: Self-efficacy positively affects student’s satisfaction with PGM education.

**H3a**: Experiential learning positively affects student’s satisfaction with PGM education.

**Word-of-Mouth**

Word-of-mouth in this study refers to informal communications concerning the evaluation of good and services, in this case the PGM education (Fornell and Bookstein 1982; Westbrook 1987). In general, an individual’s degree of satisfaction or dissatisfaction with their experience is considered the key antecedent of product word-of-mouth (Bitner 1990, Westbrook 1987). While there have been many studies investigating the factors that influence the outcomes of word-of-mouth, this study is restricted to the effects of performance and satisfaction on word-of-mouth. In previous research the antecedents of word-of-mouth have received little attention.
Although according to Bitner (1990) an individual’s degree of satisfaction or dissatisfaction with a consumption experience is generally regarded as one of the key antecedents of word-of-mouth.

Other antecedents that have been studied include commitment (Dichter 1966, Richins 1983) and perceived benefits of social exchange (Brown and Reingen 1987). This investigation will only examine the effect of performance and satisfaction on word-of-mouth. While research has shown that the effect can vary across industries we expect to see a relationship between positive performance and satisfaction and positive word-of-mouth.

**H3a:** There is a statistically significant positive relationship between student’s satisfaction and word-of-mouth for the PGM program.

**H3b:** There is a statistically significant positive relationship between perceived performance of the PGM education and word-of-mouth for the PGM program.

**Summary**

The confirmation of degrees in Professional Golf Management is a relatively recent occurrence with the first program being established in 1975. Since 1975, 19 other universities have developed programs offering the degree. Currently there are over 3,000 students enrolled in these programs (PGA Links, 2011).

As evidenced by the literature review there is very little evidence of a systematic-based approach to the curriculum of each of these programs. This has led to a wide range of expectations from students and we expect the research to show the influence of this curriculum on the student’s satisfaction with the program. The literature review began with a discussion of the dependent variables of satisfaction and performance. The independent variables of knowledge, skills and abilities, self-efficacy, and experiential learning were also examined.
Word-of-mouth was also evaluated in the model. Numerous studies were examined and cited to explain and clarify these variables.

This study focuses on whether or not the PGM education program is meeting the performance expectations of these undergraduates and satisfying all of their needs as indicated by their word-of-mouth intentions. While the historical educational literature typically has looked at why students leave higher education, this study will examine the factors influencing the students overall perception of the quality of the PGM education and their intention to recommend the program to future students.
CHAPTER THREE: METHODOLOGY

Introduction

The literature review in Chapter Two has provided the foundation upon which the research was conducted. This chapter will describe the methodology and procedures utilized for evaluating the perceived expectations and satisfaction with their PGM education by students enrolled in the program. The statistical procedures as well as the logic supporting those procedures are also included. The chapter has been divided into the following sections: the statement of the problem, population, questionnaire, data collection, research questions, data analysis, data transformation and summary.

Statement of the Problem

This study sought to assess educational performance, satisfaction and the differences, if any, between the performance expectations of PGM students and their level of satisfaction with the PGM educational characteristics. Specifically, this study examined the three constructs, knowledge, skills and abilities (KSA), experiential learning, and self-efficacy and their effect on these variables.

Extreme care and concern was taken by the researcher in working with the respondents. Anonymity was provided to those students who responded to the questionnaire. In addition, permission to conduct the study was provided by the Directors of the PGM programs as well as the University of Central Florida’s Institutional Review Board (IRB) in the spring of 2011 (Appendix C).
In addition to the differences between groups in mean scores, additional variables were examined which included: gender, class standing, the type of program, amount of internships, and golf ability. Also, differences were evaluated between satisfaction and performance while controlling for educational standing and type of program.

**Sample**

The population for this study was the students currently enrolled in one of the PGA’s Professional Golf Management programs. They were convenience sampled from six of the twenty existing programs to represent the variety of size, geographic location, program focus, and the age of program. The census of the student population in these six universities was 676 students currently enrolled. This number of students provided a large enough sample to determine significant differences among student respondents. Also, all of the PGM programs require an experiential learning component in the form of 16 months of internship. Therefore, this study will allow us to hold some variables constant to measure the effects of these experiences.

The total number (N) of surveys that were distributed in the fall of 2011 was 676 with 276 surveys being returned for a 41% response rate. Of those returned, 266 completed questionnaires provided usable responses for a final response rate of 39.3%. Surveys were administered by the directors of each of six universities and students were given a three week period for completing the online survey. The directors also sent each of the students a copy of the consent letter with the survey link. The consent agreement was also incorporated into the opening page of the online survey as well. The students were also informed that the
questionnaire was specifically for students in the PGM program and that it was being distributed by a researcher who was a PGM graduate and currently a member of the PGA.

Convenience sampling was chosen as the method of nonprobability sampling for this study. This method of sampling allowed the researcher to select programs because they were willing to participate in the study, convenient to the researcher and representative of the characteristics being investigated in this study (Creswell, J., 2005). The study consisted of all of the current students in six of the 20 PGM programs currently administered by the PGA of America. The six programs were selected to represent a cross-section of the wide variety of programs available to potential students. They were selected to represent the largest possible range of number of the students, age of program, geographic location, and colleges the programs were housed in.

**Survey Instrument**

In selecting the area for study, the researcher was faced with a decision of the choice of survey instrument to conduct this survey. Data were collected using the questionnaire created by the researcher (Appendix B). This questionnaire was created after an extensive review of literature relating to educational performance and satisfaction (Abdullah, 2005; Berdie, 1944; Dittman, 1997; Parasuraman, et al. 1988; Roest, 2008; Zeithaml et. al. 1993). In addition the survey utilized some of the attributes of the scales developed by Oliver (1993) for satisfaction and Parasuraman et al. (1991) for performance expectations. The survey also utilized Bandura’s (1977) General Self-efficacy scale and items adapted from Peter Ricci’s (2005) Knowledge, Skills and Ability Scale. Permission to use the survey was granted by the University of Central Florida’s Institutional Review Board (IRB) (Appendix C).
Initially, the researcher conducted a pilot test of PGA professionals who were graduates of the PGA’s Professional Golf Management program. This test included nine golf professionals who were all members of the PGA and currently working at golf facilities in the northeast and southeast parts of the country. This focus group was conducted in the fall of 2010. This pilot test permitted the researcher to refine, re-write, and re-organize the original questionnaire. Questions were clarified and any repetition was eliminated. The researcher received all nine questionnaires sent out resulting in a 100% response rate.

The final survey contained 22 questions and 101 items to which the students could respond. The first 13 questions gathered demographic information including sex, educational standing, golf experience, current handicap, and school that their major was housed in. Questions 14-16 measured the student’s knowledge, skills and abilities with regard to golf management competencies. These items were measured using a 5-point Likert scale and measured both the importance and performance of these items to the student. This portion of the questionnaire was developed based on the scale that Peter Ricci (2005) created. This scale was created in measuring these attributes in a survey of lodging managers and has very good reliability.

Question 17 measured the student’s general self-efficacy using a 5-point Likert scale. This section of the survey contained 10 items developed for the General Self-efficacy scale by Albert Bandura (1994). This scale has been tested repeatedly in the general psychological literature and has also been proven to be a reliable measure for self-efficacy.

Question 18 measured the student’s experiential learning and its ability to develop a number of different skills. These were measured using a 5-point Likert scale as well. This section of the survey was developed based on the work and the survey of David Kolb (1984). Question 19 measured the student’s performance of their PGM education using a 5-point Likert scale as
well. Question 20 measured the student’s overall satisfaction with their PGM program using a 5-point Likert scale. Question 21 asked the students to rate their likelihood in recommending the PGM program to friends or other students. Again this question was measured using a similar 5-point Likert scale. Finally, Question 22 was an open-ended question asking the students for any suggestions for improvements in the program.

**Face and Content Validity**

Face validity for the survey and all of the measures was conducted by using experts in the field of higher education (education research faculty, and directors of PGM programs) and professionals in the field (head professionals, directors of golf, and general managers). These experts were asked to evaluate the clarity of the instrument, the ease of use, and the general content. Feedback from the experts was used to revise the questionnaire. In total, 11 experts reviewed the survey and provided the feedback.

After these revisions, a pilot group of former PGM graduates currently practicing in the industry was used to again verify the face validity and ensure that all of the instructions and questions were easily understandable and clear. The survey was sent to 7 golf professionals in the southeast and northeast who participated in the pilot study. Once this step was completed, the surveys were ready for distribution to the directors of the PGM programs to forward to their students.

**Data Collection**

The data was collected using the questionnaire created by the researcher (Appendix B) in the spring of 2011. In February of 2011, the Directors of the six PGM programs were contacted by the researcher to explain the purpose of the study and asking for each of the schools support
of the project. Permission to use the survey was granted by the University of Central Florida’s Institutional Review Board (IRB) (Appendix C) as well as the directors of each of the schools.

The survey and the Letter of Consent (Appendix A) were sent to each of the directors of the programs electronically to forward to each of the students currently enrolled in their programs. The directors agreed to supply their students with the link to the on-line survey. The initial cover letter indicated the author’s position as a PGA professional and his degree in the PGM program.

The survey was available to be accessed by the students beginning on May 15th and was closed on May 31st. Students were sent several follow-up emails by the directors of the programs to encourage participation. To further enhance the return rate, an incentive of a 2 night stay at the Shingle Creek Resort in Orlando, Florida was offered to encourage completion and the return of the survey. Of the total population (N=676), 276 surveys were returned. Of these 276 returned surveys, 266 provided usable responses for a response rate of 39.3%. It should be noted that the survey was conducted while students were enrolled in classes and the response rate was considered acceptable and provided the number of responses necessary to allow for statistical differences.

As a former PGM student, the researcher is aware of the busy schedules and time constraints often faced by students in the PGM program. Students are not only required to keep up with their academic work but they must also spend considerable time maintaining their playing skills as well. The researcher aggressively attempted to increase the response rate by follow-up phone calls and emails to the directors of the programs. All of the responses to the survey were completed in the on-line format.
Of the 10 questionnaires that were returned but unusable, all of them had no data responded to. A few other surveys had several questions unanswered but the researcher felt that using the surveys and only excluding them for analysis in areas where they did not have any data was the prudent thing to do.

**Data Analysis**

A number of steps were taken to explore the primary research objective. All analysis of the data was completed by the researcher. All statistical computations were performed using the computer software program, Statistical Package for Social Sciences, Version 19.0 (SPSS®, 2011).

To address the issues of validity and trustworthiness, the researched collected the data from an online survey that was imported into a database and included no names or identifying information for the respondents. The web-based submissions were automatically dated upon submission by the respondents.

A wide variety of data analyses were used to examine the characteristics of the population and to test the formal research questions. These analyses included the following:

1. Descriptive statistics were used to understand the characteristics of respondents and were tabulated for all variables to obtain measures of central tendency, such as mean, median and mode.

2. Reliability analysis of sub-scales and total scores for each measure were calculated.
3. Multiple regression analysis was also applied to determine the statistical significance, and the impact of each individual independent on the dependent variables in the model.

**Descriptive Statistics**

Descriptive statistics were completed for all demographic, independent and dependent variables. These statistics included means, standard deviations, frequency, and expressed as a percentage of all possible scores. These statistics were compiled and reported for the entire population sample.

**Exploratory Factor Analysis**

The underlying constructs were subjected to exploratory factor analysis (PCA) to test their dimensionality. Initially, an unconstrained solution was completed for each measure. This was then followed by additional extraction which reduced the solution from one to multiple factors. Inter-correlations were compiled for the sample. Orthogonal rotations were run using VARIMAX to identify a set of statistically independent factors. This technique revealed that construct validity existed for all of the survey items. The dependent variable of word-of-mouth was directly measured by a single question and it was not appropriate to include it in the factor analysis.

**Regression Analysis**

Regression analysis was used for evaluating the relationship between the independent variable on the dependent variable in the model. The conceptual model was modified to separate
KSA into the individual constructs of knowledge, skills and ability to better determine the effect of each (Figure 3).

Figure 3: Revised framework for evaluating the quality of the PGM education
In the first stage the dependent variable of performance was regressed on the independent variables of knowledge, skills ability, self-efficacy, and experiential learning. In the second stage, the dependent variable of satisfaction was regressed on the independent variables of knowledge, skills, ability, self-efficacy, and experiential learning. The third stage regressed the dependent variable of word-of-mouth on the independent variables of performance and satisfaction.

Multiple regression was the most appropriate statistical technique for addressing all three of the research questions. This analysis can identify the relationship between several independent variables and a dependent variable that is ordinal or interval (Pallant, 2005). Standardized coefficients were reported which represent the relative importance of each of the predictor variables.

Summary

This chapter described the procedures and methodology utilized in analyzing the variables in the study. The statistical procedures chosen for data analysis were also included. The results for data analysis are presented in the following chapter.
CHAPTER FOUR: RESEARCH RESULTS

Introduction

Chapter Four presents the results of the data analysis completed in this study using the IBM Statistical Package of Social Sciences (SPSS) Version 19.0 (2010). Described in this Chapter are differences in expectations and satisfaction with word-of-mouth of PGA Professional Golf Management students. This chapter provides the results of the analysis organized by the research questions.

There were three research questions examined in this study. Research Question #1: Which combination of KSA, self-efficacy, and experiential learning best predict satisfaction in PGM students? Research Question #2: Which combination of KSA, self-efficacy, and experiential learning best predict Performance in PGM students? And Research Question #3: Which is the best predictor of positive word-of-mouth, performance or satisfaction?

Descriptive Statistics

Descriptive Statistics of the Sample

Table 2 summarizes the demographic/descriptive data of the student respondents including gender, class standing, and area of study. Male students (n = 246) outnumbered female students (n = 20) by a ratio of around 12:1. Freshmen (n = 54) accounted for 20.5% of the total sample, sophomores (n = 74) accounted for 28.1% of the total sample, juniors (n = 65) accounted for 24.7% of the total sample, and seniors (n = 70) accounted for 26.6% of the total sample. Two students did not identify their class standing.

Students who declared the primary focus of their PGM program as Business/Marketing
(n = 113) accounted for the largest group with 42.5% of the sample. The smallest group declared Turf grass/Agriculture as their degree emphasis (n = 66) accounting for 24.8% of the total sample. The percentages reported for the demographic categories that do not total to 100% are due to missing data.

**Table 1: PGM Students Demographic Information**

<table>
<thead>
<tr>
<th>Demographic Information (n=266)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Demographics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (n=266)</td>
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<td></td>
</tr>
<tr>
<td>Male</td>
<td>246</td>
<td>92.5</td>
</tr>
<tr>
<td>Female</td>
<td>20</td>
<td>7.5</td>
</tr>
<tr>
<td>Educational standing (n=263)</td>
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<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>54</td>
<td>20.5</td>
</tr>
<tr>
<td>Sophomore</td>
<td>74</td>
<td>28.1</td>
</tr>
<tr>
<td>Junior</td>
<td>65</td>
<td>24.7</td>
</tr>
<tr>
<td>Senior</td>
<td>70</td>
<td>26.6</td>
</tr>
<tr>
<td>School your program is housed in (n=264)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business/Marketing</td>
<td>113</td>
<td>42.5</td>
</tr>
<tr>
<td>Turf grass/Agriculture</td>
<td>66</td>
<td>24.8</td>
</tr>
<tr>
<td>Hospitality/Recreation</td>
<td>85</td>
<td>32.2</td>
</tr>
<tr>
<td><strong>Golfing Demographics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of years playing golf (n=266)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 year or less</td>
<td>1</td>
<td>0.4</td>
</tr>
<tr>
<td>3-5 years</td>
<td>28</td>
<td>10.5</td>
</tr>
<tr>
<td>6-8 years</td>
<td>63</td>
<td>23.7</td>
</tr>
<tr>
<td>9-10 years</td>
<td>44</td>
<td>16.5</td>
</tr>
<tr>
<td>11 years or more</td>
<td>130</td>
<td>48.9</td>
</tr>
<tr>
<td>Current Handicap (n=266)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 or less</td>
<td>16</td>
<td>6.0</td>
</tr>
<tr>
<td>1 – 3</td>
<td>84</td>
<td>31.6</td>
</tr>
<tr>
<td>4 – 6</td>
<td>88</td>
<td>33.1</td>
</tr>
<tr>
<td>7 – 9</td>
<td>62</td>
<td>23.3</td>
</tr>
<tr>
<td>10 – 12</td>
<td>16</td>
<td>6.0</td>
</tr>
<tr>
<td>Hours per week practicing or playing (n=266)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>6</td>
<td>2.3</td>
</tr>
<tr>
<td>1 – 2 hours per week</td>
<td>40</td>
<td>15.0</td>
</tr>
<tr>
<td>3 – 6 hours per week</td>
<td>84</td>
<td>31.6</td>
</tr>
<tr>
<td>7 – 9 hours per week</td>
<td>57</td>
<td>21.4</td>
</tr>
<tr>
<td>10 hours or more per week</td>
<td>79</td>
<td>29.7</td>
</tr>
</tbody>
</table>
Demographic Information (n=266)

Number of tournaments since starting the program (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>73</td>
</tr>
<tr>
<td>1 – 2 events</td>
<td>50</td>
</tr>
<tr>
<td>3 – 4 events</td>
<td>39</td>
</tr>
<tr>
<td>5 – 6 events</td>
<td>25</td>
</tr>
<tr>
<td>7 – 9 events</td>
<td>15</td>
</tr>
<tr>
<td>10 or more events</td>
<td>64</td>
</tr>
</tbody>
</table>

Have you passed the PAT (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>160</td>
</tr>
<tr>
<td>No</td>
<td>106</td>
</tr>
</tbody>
</table>

Number of times taken the PAT (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 times</td>
<td>6</td>
</tr>
<tr>
<td>1 time</td>
<td>123</td>
</tr>
<tr>
<td>2 times</td>
<td>63</td>
</tr>
<tr>
<td>3 times</td>
<td>32</td>
</tr>
<tr>
<td>4 times</td>
<td>9</td>
</tr>
<tr>
<td>5 times</td>
<td>14</td>
</tr>
<tr>
<td>6 or more times</td>
<td>19</td>
</tr>
</tbody>
</table>

Internship Demographics

Number of hours enrolled this semester (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 hours or less</td>
<td>13</td>
</tr>
<tr>
<td>10 – 12 hours</td>
<td>39</td>
</tr>
<tr>
<td>13 – 15 hours</td>
<td>123</td>
</tr>
<tr>
<td>16 hours or more</td>
<td>90</td>
</tr>
</tbody>
</table>

Number of months of internship completed (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>69</td>
</tr>
<tr>
<td>0 – 3 months</td>
<td>73</td>
</tr>
<tr>
<td>4 – 6 months</td>
<td>47</td>
</tr>
<tr>
<td>7 – 9 months</td>
<td>34</td>
</tr>
<tr>
<td>10 – 12 months</td>
<td>29</td>
</tr>
<tr>
<td>13 months or more</td>
<td>14</td>
</tr>
</tbody>
</table>

Average number of hours worked on most recent internship (n=266)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 30 hours</td>
<td>32</td>
</tr>
<tr>
<td>31 – 35 hours</td>
<td>28</td>
</tr>
<tr>
<td>36 – 40 hours</td>
<td>104</td>
</tr>
<tr>
<td>41 – 45 hours</td>
<td>63</td>
</tr>
<tr>
<td>Over 46 hours</td>
<td>37</td>
</tr>
</tbody>
</table>

Note: Not all participants responded to all survey items

The majority of students have been playing for 11 years or more (n = 130), and accounted for 48.9% of the total population. The smallest group (n = 1) are students who had been playing
three years or less accounting for 0.4% of the total population. The large number of players who have been playing for more than 11 years would be expected of students enrolled in this major.

The current handicap of those students in the PGM program is largest in the four to six handicap range (n = 88) which represents 33.1% of the total population. The two smallest handicap groups, 0 or less (n = 16) and the group of 10 – 12 (n = 16) accounts for 6.0% of the total population each. These groups in particular are concerning as students are required to pass their players ability test (PAT) before receiving their degree and these students will probably have a low probability of success with this requirement.

Another statistic in Table 2 is the number of tournaments that the students have competed in since beginning their PGM program. In the results of the survey, the number of students who have played no tournaments (n = 73) accounts for the highest percentage at 27.4%. The smallest group (n = 15) played in seven to nine events and accounted for 5.6% of the total population. It is noteworthy that the two extremes are the most and the least categories.

Table 2 also shows the number of weeks that the students are practicing and working on their games. The largest number of students (n = 84) are playing or practicing 3 to 6 hours per week and represent 31.6% of the total population. The smallest group (n = 6) do not practice or play at all and account for 2.3% of the total population.

While Table 2 also reports that 60.2% (n = 160) have already passed their PAT requirement, it also indicates that 39.8% (n = 106) of the students have not passed their PATs currently. Since this is a condition of completing their degrees this figure also causes some concern.

In evaluating those students who have taken the PAT, there is a wide range of attempts by the students. The largest number (n = 123) have only attempted the PAT on one occasion and
account for 46.2% of the total number of students. Students who have taken the PAT six or more times (n = 19) represent 7.1% of the total population. Those that have taken it five times (n = 14) represent 5.3% of the total population while those that have taken it four times (n = 9) represent 3.4%. The smallest group (n = 6) have not taken the PAT at all and represent 2.3% of the total population. In total, the percentage of students who have not taken the PAT or have taken it four times or more represent over 18% of the students. The PAT is an integral part of the students obtaining their degrees and those students that have not passed their PATs (especially the upper-classmen) should show a strong negative correlation to satisfaction with the program.

In evaluating the current academic load of the PGM students it was found that the largest group (n = 123) are currently carrying 13 to 15 hours and account for 46.4% of the total population. While the next largest group (n = 90) are taking 16 hours or more this semester and represent 34.0% of the total population.

In evaluating the number of months that the students have been on internship during their program, the largest group (n = 73) are those students that have completed zero to three months and account for 27.4% of the total population. Those students that have completed 10 to 12 months (n = 29) account for 10.9% of the total population and those that have completed 13 months or more (n = 14) account for 5.3% of the total population.

The survey also asked the students to report the number of hours that they were averaging on their most recent internship and the largest group (n = 104) reported that they were working 36 to 40 hours per week and accounted for 39.4% of the total population. The smallest group were those that worked 31 to 35 hours per week (n = 28) and they accounted for 10.6% of the total population.
Descriptive Statistics of the Knowledge Performance Scale

Table 2 summarizes the descriptive statistics for the 8-items comprising the Knowledge Performance Scale. The performance means ranged from a low of 3.07 “knowledge of handicapping programs”, to 4.15 for “knowledge of basic terminology used in the golf industry”. Six items fell below the score of ‘4’ and represent those items that students felt were areas that needed improvement in the program. The two items of “knowledge of the basics in managing a golf operation” and “knowledge of basic terminology used in the golf industry” are items that are meeting the student’s performance evaluation.

Descriptive Statistics of the Skill Performance Scale

Table 2 summarizes the descriptive statistics for the 9-items of the Skills Performance Scale. The performance means ranged from a low of 3.62 “skills to manage a tee sheet”, to 3.98 for “skills to merchandise a golf shop”. All nine items fell below the score of ‘4’ and represent scores that student’s felt were areas that needed improvement in the program. The two areas of “skills to manage a tee sheet” and “skills to manage pace of play” are two extremely critical skills needed by entry level golf professionals and are areas of concern.

Descriptive Statistics of the Ability Performance Scales

Table 2 also summarizes the descriptive statistics for the 6-items of the Ability Performance Scale. The performance means ranges from a low of 3.93 “the ability to take pride in satisfying the needs of others”, to 4.14 for “the ability to be caring and empathetic with guests”. All six of the items were above or very close to the score of ‘4’ indicating a positive evaluation by the students in the ability areas.
Table 2: Descriptive Statistics for KSA Performance Scales

*Descriptive Statistics for KSA Performance sorted by mean*

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of basic terminology used in the golf industry</td>
<td>4.15</td>
<td>0.67</td>
</tr>
<tr>
<td>Knowledge of the basics in managing a golf operation</td>
<td>4.14</td>
<td>0.72</td>
</tr>
<tr>
<td>Knowledge of golf shop merchandising and buying practices</td>
<td>3.95</td>
<td>0.92</td>
</tr>
<tr>
<td>Knowledge of managing employees</td>
<td>3.93</td>
<td>0.87</td>
</tr>
<tr>
<td>Knowledge of guest service management</td>
<td>3.92</td>
<td>0.89</td>
</tr>
<tr>
<td>Knowledge of human resource management practices</td>
<td>3.84</td>
<td>0.83</td>
</tr>
<tr>
<td>Knowledge of providing individual and group lessons</td>
<td>3.67</td>
<td>1.01</td>
</tr>
<tr>
<td>Knowledge of handicapping programs</td>
<td>3.08</td>
<td>1.07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills to merchandise a golf shop</td>
<td>3.99</td>
<td>0.84</td>
</tr>
<tr>
<td>Skills to handle a variety of tasks at once</td>
<td>3.87</td>
<td>0.88</td>
</tr>
<tr>
<td>Skills to train and discipline employees</td>
<td>3.83</td>
<td>0.90</td>
</tr>
<tr>
<td>Skills to develop a marketing plan for the golf course</td>
<td>3.83</td>
<td>0.86</td>
</tr>
<tr>
<td>Skills to read and understand a Balance sheet</td>
<td>3.81</td>
<td>0.86</td>
</tr>
<tr>
<td>Skills to read and understand a Profit and Loss statement</td>
<td>3.77</td>
<td>0.94</td>
</tr>
<tr>
<td>Skills to manage pace of play</td>
<td>3.67</td>
<td>1.00</td>
</tr>
<tr>
<td>Skills to manage food and beverage costs</td>
<td>3.67</td>
<td>0.93</td>
</tr>
<tr>
<td>Skills to manage a tee sheet</td>
<td>3.62</td>
<td>0.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ability</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to be caring and empathetic with guests</td>
<td>4.14</td>
<td>0.73</td>
</tr>
<tr>
<td>The ability to adapt to a changing environment</td>
<td>4.04</td>
<td>0.80</td>
</tr>
<tr>
<td>The ability to balance the needs of multiple guests at one time</td>
<td>3.99</td>
<td>0.73</td>
</tr>
<tr>
<td>The ability to diligently cater to the needs of others</td>
<td>3.99</td>
<td>0.70</td>
</tr>
<tr>
<td>The ability to generate an attitude of trust among co-workers</td>
<td>3.95</td>
<td>0.76</td>
</tr>
<tr>
<td>The ability to take pride in satisfying the needs of others</td>
<td>3.93</td>
<td>0.82</td>
</tr>
</tbody>
</table>

1=Not meeting expectations 2=Partially meeting expectation 3=Neutral 4=Met expectations 5=Exceeding expectations
Results of Importance and Performance Analysis

Knowledge, Skills and Ability Importance and Performance

Table 4 and Figure 3 show the results of the Knowledge Importance and Performance Scales. Twenty one of the 23 attributes had mean importance scores greater than ‘4’ and thus should be considered ‘fairly important’. “Knowledge of the basics in managing a golf operation” and “the ability to be caring and empathetic with guests” is considered to be the most important, with the highest mean scores of 4.57. “Knowledge of managing employees”, “the ability to balance the needs of multiple guests at one time”, and “the ability to generate an attitude of trust among co-workers” come in second with mean scores of 4.50.

The highest rated attribute in terms or performance was “knowledge of basic terminology used in the golf industry” with a mean of 4.13. The next highest mean for performance was “knowledge of the basics in managing a golf operation” at 4.12. Both of these indicate that the PGM programs are doing a credible job of passing on the basics skills to the students. However, other attributes such as “guest service management”, “providing individual and group lessons”, and “human resource management practices” all generated significantly lower mean scores. The lowest item mean score was related to “handicapping programs” at 3.06. This was probably due to the low level of importance and the amount of time that the programs spend on teaching this to the students.

A paired-samples t test was conducted to evaluate the differences between the student’s scores on the knowledge, skills and ability importance scale and the knowledge, skills and ability performance scores. Results are reported in Table 3. There was a statistically significant difference between the knowledge importance ($M = 4.30, SD = 0.44$) and knowledge
performance scores ($M = 3.84, SD = 0.62$), $t(229) = 11.63, p < .05$ (two-tailed). The mean difference was 0.46 with a 95% confidence interval ranging from 0.38 to 11.63. The eta squared statistic (.37) indicated a large effect size.

There was a statistically significant difference between the skills importance ($M =4.29, SD = 0.46$) and skills performance scores ($M = 3.79, SD = 0.67$), $t(225) = 12.09, p < .05$ (two-tailed). The mean difference was 0.50 with a 95% confidence interval ranging from 0.43 to 0.59. The eta squared statistic (.39) indicated a large effect size.

There also was a statistically significant difference between the ability importance ($M =4.48, SD = 0.46$) and ability performance scores ($M = 4.01, SD = 0.61$), $t(227) = 12.02, p < .05$ (two-tailed). The mean difference was 0.47 with a 95% confidence interval ranging from 0.40 to 0.55. The eta squared statistic (.39) indicated a large effect size.

**Table 3: Paired t-test of Importance and Performance Analysis**

**Knowledge, Skills and Abilities Results**

<table>
<thead>
<tr>
<th></th>
<th>Paired Differences</th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Importance</td>
<td>Performance</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>K1</td>
<td>Knowledge of the basics in managing a golf operation</td>
<td>4.58</td>
<td>0.60</td>
<td>4.14</td>
<td>0.72</td>
<td>0.44</td>
</tr>
<tr>
<td>K2</td>
<td>Knowledge of basic terminology used in the golf industry</td>
<td>4.29</td>
<td>0.75</td>
<td>4.15</td>
<td>0.67</td>
<td>0.14</td>
</tr>
<tr>
<td>K3</td>
<td>Knowledge of human resource management practices</td>
<td>4.07</td>
<td>0.76</td>
<td>3.84</td>
<td>0.83</td>
<td>0.23</td>
</tr>
<tr>
<td>K4</td>
<td>Knowledge of guest service management</td>
<td>4.38</td>
<td>0.73</td>
<td>3.92</td>
<td>0.89</td>
<td>0.46</td>
</tr>
<tr>
<td>K5</td>
<td>Knowledge of golf shop merchandising and buying practices</td>
<td>4.49</td>
<td>0.60</td>
<td>3.95</td>
<td>0.92</td>
<td>0.54</td>
</tr>
</tbody>
</table>

$p = < .05$
<table>
<thead>
<tr>
<th></th>
<th>Importance</th>
<th>Performance</th>
<th>Mean</th>
<th>SD</th>
<th>Mean</th>
<th>SD</th>
<th>Diff.</th>
<th>T</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K6</td>
<td>Knowledge of providing individual and group lessons</td>
<td>4.33</td>
<td>0.71</td>
<td>3.66</td>
<td>1.08</td>
<td>0.67</td>
<td>8.50</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>K7</td>
<td>Knowledge of handicapping programs</td>
<td>3.75</td>
<td>0.85</td>
<td>3.08</td>
<td>1.07</td>
<td>0.67</td>
<td>9.23</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>K8</td>
<td>Knowledge of managing employees</td>
<td>4.51</td>
<td>0.63</td>
<td>3.93</td>
<td>0.87</td>
<td>0.58</td>
<td>9.43</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>Skills to read and understand a Profit and Loss statement</td>
<td>4.35</td>
<td>0.68</td>
<td>3.77</td>
<td>0.94</td>
<td>0.58</td>
<td>8.83</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S2</td>
<td>Skills to read and understand a Balance sheet</td>
<td>4.27</td>
<td>0.70</td>
<td>3.81</td>
<td>0.86</td>
<td>0.46</td>
<td>7.00</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S3</td>
<td>Skills to handle a variety of tasks at once</td>
<td>4.46</td>
<td>0.63</td>
<td>3.87</td>
<td>0.87</td>
<td>0.59</td>
<td>9.47</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S4</td>
<td>Skills to develop marketing plans for the golf course</td>
<td>4.22</td>
<td>0.73</td>
<td>3.83</td>
<td>0.86</td>
<td>0.39</td>
<td>6.48</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S5</td>
<td>Skills to manage f &amp; b costs</td>
<td>3.80</td>
<td>0.83</td>
<td>3.64</td>
<td>0.94</td>
<td>0.17</td>
<td>2.49</td>
<td>.013</td>
<td></td>
</tr>
<tr>
<td>S6</td>
<td>Skills to merchandise a golf shop</td>
<td>4.44</td>
<td>0.64</td>
<td>3.98</td>
<td>0.84</td>
<td>0.46</td>
<td>7.91</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S7</td>
<td>Skills to manage a tee sheet</td>
<td>4.26</td>
<td>0.76</td>
<td>3.62</td>
<td>0.94</td>
<td>0.64</td>
<td>9.29</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S8</td>
<td>Skills to manage pace of play</td>
<td>4.32</td>
<td>0.70</td>
<td>3.68</td>
<td>1.00</td>
<td>0.64</td>
<td>8.58</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>S9</td>
<td>Skills to train and discipline employees</td>
<td>4.44</td>
<td>0.65</td>
<td>3.83</td>
<td>0.90</td>
<td>0.61</td>
<td>9.53</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>The ability to be caring and empathetic with guests</td>
<td>4.57</td>
<td>0.62</td>
<td>4.12</td>
<td>0.77</td>
<td>0.45</td>
<td>8.30</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>The ability to balance the needs of multiple guests at one time</td>
<td>4.50</td>
<td>0.65</td>
<td>3.96</td>
<td>0.78</td>
<td>0.56</td>
<td>9.85</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>The ability to generate an attitude of trust among co-workers</td>
<td>4.50</td>
<td>0.64</td>
<td>3.92</td>
<td>0.81</td>
<td>0.59</td>
<td>9.96</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>The ability to diligently cater to the needs of others</td>
<td>4.40</td>
<td>0.61</td>
<td>3.96</td>
<td>0.75</td>
<td>0.46</td>
<td>8.82</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>The ability to take pride in satisfying the needs of others</td>
<td>4.38</td>
<td>0.70</td>
<td>3.91</td>
<td>0.86</td>
<td>0.49</td>
<td>8.29</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>The ability to adapt to a changing environment</td>
<td>4.46</td>
<td>0.68</td>
<td>4.01</td>
<td>0.85</td>
<td>0.47</td>
<td>7.67</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

\[ p = < .05 \]
The attribute importance means were paired with the performance means for the corresponding attributes, to form the coordinates for each of the attributes shown in Figure 3. These coordinates were plotted on to the IPA grid using “Performance” on the x-axis and “Importance” on the y-axis. The grid was plotted using the data point means as the intersection of the X (performance) and Y (importance) axes. The data means used were the average mean scores of the attribute importance and attribute performance. The use of the data-centered approach was based on the work done by Leong (2008) and yields more distinctive results than the data-centered approach originally developed by Martilla and James (1977). The concept of IPA is based on the difference between importance and performance and the resulting difference as a measure of dissatisfaction. Using a 5-point Likert scale the importance and performance were each ranked and the composite scores were plotted on the grid in Figure 3.

While the results indicate that the programs have many areas where they should “keep up the good work”, there are several areas that indicate the program should “concentrate here”. Once again, many of these were in the skill areas. These included the “skills to understand a P & L statement” and “skills to train and discipline employees” which are both critical skills required of graduates in the industry.

It is noteworthy that “knowledge of the providing individual and group lessons” was also an area that the students felt needed some improvement. It appears that in the student’s view that the “skill to manage food and beverage costs” is a low priority. It appears from these results that for the most part the students feel that they are receiving the knowledge they need from the program but they are not being taught the skills to put this knowledge into practice.
Performance

- Knowledge attribute
- Skills attribute
- Ability attribute

Figure 4: Knowledge, Skills and Ability- Importance and Performance (Table 3 for coordinates)

K1 Knowledge of basics in managing a golf operation
K2 Knowledge of basic terminology in the industry
K3 Knowledge of human resource practices
K4 Knowledge of guest service management
K5 Knowledge of golf shop merchandising and buying
K6 Knowledge of providing individual/group lessons
K7 Knowledge of handicapping programs
K8 Knowledge of managing employees
S1 Skills to understand a P & L statement
S2 Skills to read and understand a balance sheet
S3 Skills to handle a variety of tasks at once
S4 Skills to develop marketing plans for a golf course
S5 Skills to manage food and beverage costs
S6 Skills to merchandise a golf shop
S7 Skills to manage a tee sheet
S8 Skills to manage pace of play
S9 Skills to train and discipline employees
A1 Ability to be caring and empathetic with guests
A2 Ability to balance the needs of multiple guests
A3 Ability to generate trust among co-workers
A4 Ability to diligently cater to the needs of others
A5 Ability to take pride in satisfying needs of others
A6 Ability to adapt to a changing environment

Concentrate Here
Keep up the good work
Low Priority
Possible Overkill
Model Testing

Regression analyses were conducted to assess the relationships between KSA, self-efficacy, experiential learning, performance, satisfaction, and word-of-mouth. The results are presented below.

Research Question #1

For Research Question #1; is there a relationship between KSA, self-efficacy, and experiential learning with performance in PGM students? The following hypotheses were developed to evaluate this question.

H1a: Knowledge positively affects student’s perceived performance of PGM education.
H1b: Skill positively affects student’s perceived performance of PGM education.
H1c: Ability positively affects student’s perceived performance of PGM education.
H1d: Self-efficacy positively affects student’s perceived performance of PGM education.
H1e: Experiential learning positively affects student’s perceived performance of PGM education.

In evaluating the overall model multiple linear regression was deemed a suitable procedure for this data with performance as the dependent variable and knowledge, skills, ability, self-efficacy, and experiential learning as the predictor variables. Overall, the regression procedure predicted (or explained) 26.2% of the variation (see table 5) in the dependent criterion $F (5, 218) = 15.10, p = .000$. The confidence intervals around the B weights for experiential learning do not include zero as a probable value, so a value of zero was not probable among possible values. This suggests that the results for the independent variable of experiential learning probably do predict or explain the dependent variable. However, the confidence
intervals around the B weights for knowledge, skills, ability, and self-efficacy did include zero as a possible value therefore, these variables did not explain the dependent variable.

Table 4: Model Summary

**ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>26.75</td>
<td>5</td>
<td>5.35</td>
<td>15.10</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>75.46</td>
<td>213</td>
<td>.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>102.21</td>
<td>218</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Knowledge regression mean, Skill regression mean, Ability regression mean, Self-efficacy regression mean, and Experiential Learning regression mean

Table 5: Regression Analysis of Performance on Knowledge, Skill, Ability, Self-efficacy, and Experiential learning

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>t</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.13</td>
<td>1.15</td>
<td>.252</td>
</tr>
<tr>
<td>Skills</td>
<td>0.22</td>
<td>1.93</td>
<td>.055</td>
</tr>
<tr>
<td>Ability</td>
<td>-0.01</td>
<td>-0.12</td>
<td>.901</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>-0.002</td>
<td>-0.03</td>
<td>.977</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>0.27</td>
<td>3.98</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>15.10*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05 Dependent variable: PERFORMANCE
Research Question #2

For Research Question #1; is there a relationship between KSA, self-efficacy, and experiential learning with satisfaction in PGM students? The following hypotheses were developed to evaluate this question.

**H2a:** Knowledge positively affects student’s perceived satisfaction of PGM education.

**H2b:** Skill positively affects student’s perceived satisfaction of PGM education.

**H2c:** Ability positively affects student’s perceived satisfaction of PGM education.

**H2d:** Self-efficacy positively affects student’s perceived satisfaction of PGM education.

**H2e:** Experiential learning positively affects student’s perceived satisfaction of PGM education.

In evaluating the overall model multiple linear regression was deemed a suitable procedure for this data with satisfaction as the dependent variable and knowledge, skills, ability, self-efficacy, and experiential learning as the predictor variables. Overall, the regression procedure predicted (or explained) 26.2% of the variation (see table 8) in the dependent criterion $F (5, 213) = 16.12, p = .000$. The confidence intervals around the B weights for ability and experiential learning do not include zero as a probable value, so a value of zero was not probable among possible values. This suggests that the results for the independent variable probably do predict or explain the dependent variable. In addition, the confidence intervals around the B weights for knowledge, skills, and self-efficacy did include zero as a possible value therefore, these variables did not explain the dependent variable.
Table 6: Model Summary

\textit{ANOVA}^a

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>21.03</td>
<td>5</td>
<td>4.207</td>
<td>16.120</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>54.280</td>
<td>208</td>
<td>.261</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75.313</td>
<td>213</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{a} Predictors: (Constant), Knowledge regression mean, Skill regression mean, Ability regression mean, Self-efficacy regression mean, Experiential Learning regression mean

Table 7: Regression Analysis of Satisfaction on Knowledge, Skill, Ability, Self-efficacy, and Experiential learning

<table>
<thead>
<tr>
<th>Variable</th>
<th>β</th>
<th>t</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge</td>
<td>0.10</td>
<td>0.88</td>
<td>.378</td>
</tr>
<tr>
<td>Skill</td>
<td>0.02</td>
<td>0.14</td>
<td>.887</td>
</tr>
<tr>
<td>Ability</td>
<td>0.19</td>
<td>2.09</td>
<td>.037</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>0.05</td>
<td>0.71</td>
<td>.478</td>
</tr>
<tr>
<td>Experiential learning</td>
<td>0.32</td>
<td>4.58</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>16.12*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{*}p < .05 Dependent variable: SATISFACTION
Research Question #3

For Research Question #3; is there a relationship between performance and satisfaction and word-of-mouth in PGM students? The following hypotheses were developed to evaluate this question.

**H3a**: There is a statistically significant positive relationship between student’s satisfaction and word-of-mouth for the PGM program.

**H3b**: There is a statistically significant positive relationship between perceived performance of the PGM education and word-of-mouth for the PGM program.

Hypothesis 3a: multiple linear regression was deemed a suitable procedure for this data with word-of-mouth as the dependent variable and satisfaction as the predictor variables. Overall, the regression procedure predicted (or explained) 40.3% of the variation in the dependent criterion $F (1, 218) = 78.27, p = .000$. The confidence intervals around the B weights do not include zero as a probable value, so a value of zero was not probable among possible values. This suggests that the results for the independent variable probably do predict or explain the dependent variable.

Hypothesis 3b: multiple linear regression was deemed a suitable procedure for this data with word-of-mouth as the dependent variable and performance as the predictor variables. Overall, the regression procedure predicted (or explained) 13.8% of the variation in the dependent criterion $F (1, 222) = 35.41, p = .000$. The confidence intervals around the B weights do not include zero as a probable value, so a value of zero was not probable among possible values. This suggests that the results for the independent variable probably do predict or explain the dependent variable.
In evaluating the overall model multiple linear regression was deemed a suitable procedure for this data with word-of-mouth as the dependent variable and performance and satisfaction as the predictor variables. Overall, the regression procedure predicted (or explained) 42.0% of the variation (see table 9) in the dependent criterion $F(2, 218) = 78.27, p = .000$. The confidence intervals around the B weights do not include zero as a probable value, so a value of zero was not probable among possible values. This suggests that the results for the independent variables probably do predict or explain the dependent variable.

Table 8: Model Summary

<table>
<thead>
<tr>
<th>ANOVA$^a$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>Regression</td>
</tr>
<tr>
<td>Residual</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

$^a$ Dependent Variable: Mean score of Word-of-Mouth  
$^b$ Predictors: (Constant), Performance regression mean, Satisfaction regression mean

Table 9: Regression Analysis of Word-of-Mouth on Satisfaction and Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$</th>
<th>$t$</th>
<th>Sig.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>0.14</td>
<td>2.54</td>
<td>.012</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>0.58</td>
<td>10.25</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>78.27*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$^{*p < .05}$ Dependent variable: WORD-OF-MOUTH
In examining some additional data, it was interesting to note the relationship between educational standing and performance. Freshmen and sophomores showed a much higher level of performance than juniors or seniors $F = (3, 224) = 3.87, p = .010$. Post hoc comparisons using the Tukey HSD test indicated that the mean scores for sophomores ($M = 4.31, SD = 0.61$) was significantly different than seniors ($M = 3.91, SD = 0.70$).

Sophomores also showed a much higher level of satisfaction than seniors as well $F = (3, 216) = 4.24, p = .003$. Post hoc comparisons using Tukey HSD test indicated that the mean scores for sophomores ($M = 4.46, SD = 0.52$) was significantly different than seniors ($M = 4.06, SD = 0.64$). This difference could be explained by changes that have been made recently to the PGA’s curriculum but a further analysis would be needed to isolate the reason.

A post hoc analysis was done to determine if there were any predictive relationships with gender. It was uncovered that gender is not a predictor of a PGM student’s satisfaction or performance. A post hoc analysis was also conducted on the focus of degree and satisfaction and performance. There was no statistical difference between the focus of degree and satisfaction, however there was a significant difference at the $p = < .05$ level in performance scores between Turf grass/agriculture majors and Recreation and Business/marketing majors $F = (3,225) = 11.20, p = .000$. Post hoc comparisons using the Tukey HSD test indicated that the mean scores for Turf grass/agriculture ($M = 4.50, SD = 0.45$) was significantly different from Recreation ($M = 3.86, SD = 0.55$) and Business/marketing ($M = 4.10, SD = 0.79$).

The IPA analysis was also a very prominent part of the findings in this study. All 23 items in the KSA, self-efficacy, and experiential learning scales were significant when measured
with a paired-samples t-test. The scores for the performance of the program were much lower than the importance the students were placing on each of the items.

**Summary of Findings**

The purpose of this study was to investigate PGM student’s evaluation of the effectiveness of the PGM education. Findings for Research Question #1 from the linear regression conducted partially met the hypothesis. Findings from the regression conducted were statistically significant with experiential learning. However, the independent variables of knowledge, skills, ability, and self-efficacy were not significant in establishing a relationship with performance.

Findings for Research Question #2 from the linear regression conducted partially met the hypotheses. The findings from the linear regression conducted with scores from the ability and experiential learning scales were statistically significant in demonstrating a relationship with the student’s satisfaction. However, the independent variables of knowledge, skills, and self-efficacy were not significant in establishing a relationship with performance.

Findings for research Question #3 from the linear regression conducted with scores from the satisfaction scale and the performance scale were statistically significant in demonstrating a relationship with the student’s word-of-mouth. Chapter Five will include a discussion of the findings, limitations of the study, implications for PGM programs and recommendations for future research.
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter begins with a brief overview of the study including the significance, the implications and the intended contributions to the field. The findings and conclusions that were arrived at as a result of the data analysis will be discussed and their relation to future research and theory will also be evaluated. Finally, the chapter will conclude with a summary of this research.

Discussion

While there are numerous ways to enter the golf business and begin establishing the path for your eventual career, the PGA’s PGM program is one of the most direct routes for achieving success. Typically, these programs have been structured and taught based on the direction of the PGA. It is a primary assumption of this thesis that in order to continue to have successful programs and strong student retention it is incumbent on the institutions to understand the motivators of their current students.

The purpose of this study was to assess the level of performance and satisfaction levels of PGM students with their PGM education. It explored the differences which existed between the two variables and their effect on the student’s word-of-mouth. Additionally, this study identified the relationship that exists between the factors of knowledge, skill, ability, self-efficacy, and experiential learning with performance and satisfaction. An extensive literature review on word-of-mouth, satisfaction and performance was studied to evaluate the factors that contribute to these in the higher educational environment. This study was underpinned with a literature review
which highlighted the contributions of each of the factors to higher education. The review indicated that the concepts have received relatively little attention in the vocation and education literature. Satisfaction or performances are the results or the desired outcomes resulting from actions the individual has taken (Bandura, 1986). In Fouad and Guillian’s (2006) study, they found that outcome or performance were a valid construct that contributed to career decisions and had a direct and indirect path to self-efficacy, although this study did not support that relationship. Finally, this study examined the relationship between the demographic variables and performance and satisfaction.

Central to this study was the construct of word-of-mouth. In evaluating students who are recommending the PGM program it was decided that performance and satisfaction factored into that equation. Satisfaction is the degree the product or service itself provides a level of consumption-related fulfillment and research shows that the higher the consumer’s satisfaction, the more positive word-of-mouth will be generated (Boulding et al., 1993).

Five psychological constructs were evaluated for their relationship to performance and satisfaction. Self-efficacy was evaluated in terms of what the students bring with them when they enter the program. This concept was measured within the social-cognitive theory established by Bandura (1977) with the General Self-efficacy Scale (GSES). The concept of knowledge, skills and ability (KSA) defined by Ricci (2005), was examined using the KSA scale (KSAS) developed for this study based on his work. Experiential learning was defined as “learning from doing” and the measurement was evaluated with the Experiential Learning Scale (ELS) developed for this study based on the framework established by Kolb (1984). The Performance Scale was also developed for this study based on the work of Parasuraman et al. (1991), and the single-item Word-of-Mouth Scale was an author developed scale based on the literature review.
It was postulated that the five constructs of knowledge, skills, ability, self-efficacy, and experiential learning were related to the PGM student’s performance and satisfaction with their PGM education. The link between these was discussed in Chapter 3. Thus the inference can be made that this would result in a positive word-of-mouth as a measure of the students overall positive evaluation of the program.

Figure 3 (p. 43) outlines the revised framework for this study. The figure depicts constructs that are believed to impact the student’s word-of-mouth. It indicates knowledge, skills, ability, self-efficacy, and experiential learning as inputs to the student’s satisfaction and performance evaluations which in turn influence word-of-mouth. The original framework which included KSA as one construct was modified to allow for knowledge, skills and ability to be measured independently.

An on-line student survey was developed to operationalize the constructs in the study and to examine their relationship to the student’s word-of-mouth. The survey was composed of demographic questions and the eight measurement scales. All of the measurement scales were created for the survey with the exception of the self-efficacy scale which was the General Self-efficacy Scale developed by Albert Bandura (1995).

The results of the data analysis were presented in detail in Chapter Four. This section of the final chapter will discuss the significant findings for each area of the study. In evaluating the general demographics of the group, males outnumbered females 12 to 1. While this would be unusual in most college majors, in the PGM programs this is reflective of the golf industry in general. It is a male dominated industry with similar demographics to these.

In evaluating the golf handicaps of the students, the largest percentage (23.3%) were students whose handicap was between 7 and 9. This is an alarming number because the PGA
requirement for entering the major is an 8 handicap or less. With a handicap in this range, it will be difficult to pass the PAT which is a requirement for graduation. In addition, 39.8% of the students have not passed the PAT currently which includes 16% of the seniors who responded. This again should be an area of concern for the PGA as well as its programs.

The knowledge, skills and ability scales were also subjected to a paired samples t-test with the importance and performance measures for each item. Within the knowledge construct the programs are performing best in basic areas such as, terminology, managing an operation and merchandising and buying. They were however, performing less well on the higher order constructs of management including managing employees, guest service management, and human resource management.

The skills measurements had the lowest overall mean scores of the three areas. Once again, the items scoring the lowest were managerial in nature including “understanding a P & L and balance sheet”, “managing pace of play” and “managing food and beverage costs”. While the students felt they were getting the knowledge, they didn’t feel they had the skills to implement them with the exception of “merchandising the golf shop”. This again underscores the need for evaluating the curriculum to more closely align these two areas.

The measurement of ability had the highest overall mean scores of the three areas. Students felt very confident in “catering to the needs of guests” and “establishing a good relationship with their fellow co-workers”. This is probably indicative of areas that have been developed within a university setting as opposed to within the PGM program itself.

The paired samples t-test also indicated all 23 items were statistically significant with comparisons of performance and importance. While this finding supports the postulated relationship between importance and performance, an indication of all 23 items showing
statistical significance warrants further investigation. One possible explanation lies in the survey design for these questions. The survey (Appendix B) had the importance and performance questions on the same line. The direct relationship of the two items could lead to an inflation of either attribute. There would be a tendency to assume that a correlation represents a causal effect. If there is a substantial correlation between the rating of importance and an item's overall performance, there could be an assumption that one causes the other. While this is one possibility there are several others including the halo effect (Nisbett and Wilson, 1977) which would have the tendency to inflate the importance ratings. This is also probably indicative of Oh’s (2001) observation that when respondents consider one attribute at a time there is a general tendency to inflate importance ratings.

These attributes were then plotted on an IPA grid. The attributes plotted on the IPA grid allow an excellent “visual” of where the PGM program needs to be concentrating. The majority of the items in the “concentrate here” quadrant were most of the items in the skill areas and knowledge of giving instruction or lessons. Giving golf lessons is an area that the programs teach through weekend seminars and limited class time and this is an area that the programs might consider spending additional time teaching.

In Research Question #1 the results of the hypotheses testing reveal some expected as well as unexpected findings. First, of the four components of knowledge, skills, ability, and self-efficacy, none of these are statistically significant with the student’s performance. The relationship with self-efficacy can be understood as it is an attitudinal measure while the others are more behavioral based. Experiential learning is statistically significant with the student’s performance evaluations. This would stand to reason as the experiential component or internship is the student’s opportunity to put into practice those items they are learning in the classroom.
Research Question #2 had similar findings to number one. Knowledge, skills, and self-efficacy were not found to be significant statistically to the student’s satisfaction. Ability and experiential learning were statistically significant. The significance of ability seems to support the work of Soutar and McNeil (1996). They found that assurance and in effect empathy were highly correlated in students in a higher education environment. In addition, O’neill and Palmer (2004) also found empathy to be a significant contributor to satisfaction. Once again, experiential learning as the research suggests would be highly correlated with the student’s satisfaction. Ability correlates with satisfaction due to the inherent nature of the hospitality industry and its propensity to attract people who are interested in helping and serving others.

Research Questions #1 and #2 indicated no statistical relationship between self-efficacy and either satisfaction or performance. One of the possibilities for this might be due to the intangible nature of the construct. While knowledge, skills, abilities and experiential learning are tangible or extrinsic measurements, self-efficacy concerns a person’s intangible or intrinsic evaluation of themselves.

Research Question #3 examined the relationship of the student’s performance and satisfaction on word-of-mouth. The hypotheses examined showed a statistically significant relationship with both performance and satisfaction. Of the two variables, satisfaction had the larger contribution to the student’s word-of-mouth intentions. This study did not explore the relationship between the student’s performance and satisfaction through disconfirmation but that is certainly something to be considered for any future research.

In addition to the research hypotheses there were several other questions addressed in this study. There are few differences among student groups by predicting variables (gender, class standing, the focus of degree, completion of PAT, and numbers of internships) on the measures
of performance and satisfaction. Class standing was a predictor of satisfaction and performance in PGM students. Sophomores showed much higher levels of satisfaction than performance compared to seniors. This is a relationship that could be explored in a future study. One possible explanation is that recently there have been some changes to the overall degree and this might have a positive influence on the underclassmen. Although, another possible explanation might be that the seniors (some of whom have not passed their PAT) are looking at graduating into an environment where starting positions might be far removed from the managerial positions they thought they were preparing for.

Focus of degree was a predictor of performance in PGM students. Completion of the PAT was not a predictor of satisfaction and satisfaction makes a stronger contribution to the student’s word-of-mouth than performance.

Some of the findings in this study were counter to what the researcher anticipated based on the literature review. Based on prior research and the theoretical framework, it was expected that self-efficacy would positively influence both performance and satisfaction. There is a large body of work to support the importance of self-efficacy in human interaction (Bandura, 1997). In addition, there is considerable support for self-efficacy and educational satisfaction.

The quantitative findings however provided very little support for those hypotheses. Future investigations need to evaluate the scale used to measure this construct. No one has developed an all-inclusive measure of self-efficacy. The issue of a task specific measure of self-efficacy was raised by Hackett and Betz (1984). In addition, in Bandura’s (2006) work he indicated that "a one measure fits all approach has limited explanatory and predictive value because most of the items in an all-purpose test have little or no relevance to the domain of functioning". This finding is significant because it allows for the development of a golf or PGM
specific self-efficacy scales to better evaluate students in these programs. To avoid these issues, future studies should use the general form of Bandura’s scale, but adopt it to the domain specific areas of golf and PGM education.

Another interesting finding was the lack of significance with gender with performance and satisfaction. Gender may have been nullified by the small number of females within PGM programs. The focus of degree was the area that the researcher felt would be influential in both performance and satisfaction but there was no relationship with satisfaction only performance. This indicates that while the programs were being housed in a variety of disciplines the students within each of these programs were overall satisfied. Future testing of the model might also consider substituting a different construct for self-efficacy. One possible idea would be a golf-specific measurement of self-efficacy. The 12-item Golf Self-Efficacy Scale (GSES) developed by Hayslip et al. (2010), would be a scale worth considering for future research. This scale measures the player’s golf abilities which relate to their performance in golf.

**Implications**

This research contributes to the golf industry body of knowledge which currently is sparse in both empirical and peer-reviewed literature. It contributes to the service quality and behavioral intention literature with the development of an additional model. This research will also help guide the universities in developing programs that contribute to student retention and as a result have a positive financial impact on the institution.

The findings in this study hold several implications for PGM universities. First and probably foremost, universities should not overlook the importance of the student’s satisfaction and performance expectations with their behavioral intentions. The importance of the
professor/student relationship has been well documented in the literature and these professors need to understand their role in providing a quality service encounter (Kelley & Davis, 1994). In today’s social-media driven world, word-of-mouth both positive and negative are spread very rapidly to an ever-increasing audience.

The qualities of measures developed for this study were supported by the results from the sample. Author developed measures that were used in this study, and with some refinements can be used in future research. The hypothesized relationships between the independent variables and performance and satisfaction were somewhat corroborated. The variables of ability and experiential learning are important components of student’s satisfaction and performance and ultimately word-of-mouth. Self-efficacy and its input to performance and satisfaction in PGM students are somewhat questionable at this point.

**Limitations**

As with any study, this study has its limitations. Further research is necessary to truly understand the lack of significance from some of the independent variables. A number of issues were unexplained due to the studies limitations. First, the study utilized a convenience sample at six of the 20 existing PGM programs. Surveying all 20 of the programs could eliminate any bias as a result of this sampling procedure. In addition, this would preclude any geographic or location bias as well.

A second limitation involved the measurement of word-of-mouth by a single item. While there are numerous studies to support this method (Swan & Oliver, 1989; Singh, 1990; and Richins, 1983), Bone’s (1992) three-item scale has been shown to have more predictive power.
A third limitation is that many of our findings are somewhat speculative owing to the fact of the limited amount of research in this particular area. While the limited theoretical development is somewhat hindering, this study at least begins the process of developing some direction to further this research.

**Recommendations for Future Research**

This study was some of the first work directly related to Professional Golf Management programs. Since the results of this study corroborate the need for PGM programs to find a better method to meet the student’s performance and satisfaction, it is incumbent on these institutions to develop better ways to align the two concepts.

Due to limitations and time constraints in conducting this research the survey was convenience sampled with a representative group of PGM programs. With only 20 universities having PGM programs future researchers should look to survey all 20 programs.

A second recommendation based on the results of this study, is the need for additional research. One possible area would be to evaluate the effectiveness of the program from the perspectives of industry professionals. Additional investigation should also be done comparing students in PGM programs with those in the 2-year golf academies that attempt to offer the same experience.

A third recommendation is that future studies should look at the relationship of the disconfirmation between the student’s performance and satisfaction and its influence on word-of-mouth. While this study did not operationalize this, there is substantial literature to support the inclusion into the model in future evaluations.
The survey design also needs to evaluate the structure of the importance-performance section to eliminate any potential bias. All of the items in the t-test of importance and performance scales were significant. This is probably indicative of Oh’s (2001) observation that when respondents consider one attribute at a time there is a general tendency to inflate importance ratings. Redesigning this area of the survey should produce better results.

A fourth recommendation for further study would be to truly evaluate the initial positions that the graduates are obtaining after completing their degrees. While as previously indicated, the PGA continues to promote the fact that 100% of PGM graduates are employed at graduation, the question is in what capacity and in what industry.

Conclusions

There are three major conclusions that can be drawn from this study. The first conclusion is that the PGM student’s experiential learning is a key antecedent to the student’s positive evaluation of the PGM program. The second conclusion is that generalized self-efficacy is an ineffective measure for modeling the student’s word-of-mouth intentions. The third conclusion is that a specific focus on the PAT is required involving students early on in the program to eliminate any conflicts with graduation requirements.

The results of this study indicated that the students with positive internship experiences are highly likely to have a positive word of mouth for the program. It is critical that programs recognize this and establish a program for truly immersing the students in the experiential learning component. It is important to not only prepare them to go out on internship, but to actually meet with them after the experience to reinforce all of the “teaching”. It is incumbent on these institutions to provide one academic staff member assigned to this area. Otherwise, as
McQuade and Graessle (1990) pointed out, workloads can become so heavy with teaching, research, and coordination of the programs that it leads to a lack of effectiveness and efficiency.

The study also found that generalized self-efficacy was not a good predictor of the student’s word-of-mouth. Further research needs to strengthen this model by utilizing a golf-specific self-efficacy scale. There is an abundance of research linking self-efficacy to performance and satisfaction but in this study the construct needs to be operationalized with a better measurement scale.

The study also showed that a greater focus needs to be placed by the programs on developing skills to pass the PAT. While some of this can be accomplished through a greater emphasis on playing and practicing, a secondary method would be in helping students with the mental aspects of the game. The PAT requires a far different skill set than a typical tournament and should involve training with the universities sport psychologist.

The results of this study suggest that while PGM universities are somewhat satisfying the students, it is not to the levels that the students desire. The analysis suggests that there are several areas of concern. In today’s competitive educational environment it is imperative that each of the 20 programs must find ways to meet the student’s needs and positively influence their word-of-mouth. This should be done in an effort to develop a competitive advantage in the goal of attracting new students.

In conclusion, while this study was exploratory in nature it established a foundation for future research in this emerging field. Ideally, professors and administrators should not only want to promote a positive word-of-mouth about the program but that it would be communicated often and to a large number of people. In today’s competitive economic environment it is one
method to attract future students and in the long-run assure the continued viability of the program.
APPENDIX A: LETTER OF CONSENT
Informed Consent for
“Evaluating the Effectiveness of the Professional Golf Management (PGM) Program”

Dear Participant,

My name is David Smiley. I am a graduate of the Pennsylvania State University’s PGM program and a Master’s degree candidate at the University of Central Florida (UCF). I am conducting a study on student’s expectations and satisfaction with their PGM education. The intent of this study is to gain a better understanding of the impact of self-efficacy, knowledge skills and abilities, and experiential learning on the quality of the program. Your input is valuable to the success of this important project. I am asking you to participate in a voluntary and anonymous online survey that is expected to take about 15 minutes of your time.

- The survey questions will range from general demographic questions to influences on your perception of the PGM program.
- This survey is voluntary. You can decline to participate in this survey. There is no compensation for your participation. You may choose not to participate or not to answer specific questions. You may skip any question you are not comfortable answering.
- There are no anticipated risks resulting from participation in this study.
- The survey is expected to take approximately fifteen minutes to complete.
- Do not take this survey if you are under the age of 18.
- This survey is anonymous. Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, the UCF Institutional Review Board and its staff, and other individuals, acting on behalf of UCF; may inspect the records from this research project. The results of this study may be published; however, the published results will not include your name or any other information that would personally identify you in any way.

If you choose to participate, I sincerely appreciate your time and effort. To begin the survey just click on the link: https://www.surveymonkey.com/s/pgmedu. By completing and submitting this survey, you are agreeing to participate in this study and that you are at least 18 years of age. If you have any questions about this survey, please contact David Smiley at (407) 448-9967 or Dr. Youcheng Wang at (407) 903-8039.

Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participant rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research and Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-882-2276.

Sincerely,

____________________
David L. Smiley
APPENDIX B: SURVEY
Professional Golf Management (PGM) Education Survey

The following is a survey on student’s expectations and satisfaction with their PGM education. The intent of this study is to gain a better understanding of the impact of self-efficacy, knowledge skills and abilities, and experiential learning on the quality of the program. Your input is valuable to the success of this important project. You are being asked to participate in a voluntary and anonymous online survey that is expected to take about 15 minutes of your time.

- The survey questions will range from general demographic questions to influences on your perception of the PGM program.

- This survey is voluntary. You can decline to participate in this survey. There is no compensation for your participation. You may choose not to participate or not to answer specific questions. You may skip any question you are not comfortable answering.

- There are no anticipated risks resulting from participation in this study.

- The survey is expected to take approximately fifteen minutes to complete.

- Do not take this survey if you are under the age of 18.

- This survey is anonymous. Your privacy and research records will be kept confidential to the extent of the law. Authorized research personnel, the UCF Institutional Review Board and its staff, and other individuals, acting on behalf of UCF, may inspect the records from this research project. The results of this study may be published; however, the published results will not include your name or any other information that would personally identify you in any way.

If you have any questions or concerns on this survey, please contact David Smiley at (407) 448-9967.

Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (IRB). Questions or concerns about research participant rights may be directed to UCF Institutional Review Board Office at the University of Central Florida, Office of Research and Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246. The phone numbers are 407-823-2901 or 407-862-2276.

1. Do you agree to the consent information on this form?
   - Yes, I agree to the above consent form.
   - No, I don’t agree to the above consent form.

2. What is your gender?
   - Male
   - Female

3. What is your current educational standing?
   - Freshman
   - Sophomore
   - Junior
   - Senior
Professional Golf Management (PGM) Education Survey

4. How many years have you been playing golf?
   - Less than 1 year
   - 1-2 years
   - 3-5 years
   - 6-8 years
   - 9-10 years
   - 11 years or more

5. Since starting your PGM program, how many official tournaments have you competed in (these would include PGA Section events, State Amateurs, and individual stroke play events).
   - None
   - 1 to 2 events
   - 3 to 4 events
   - 5 to 6 events
   - 7 to 9 events
   - 10 or more events

6. What is your current handicap?
   - 0 or less
   - 1-3
   - 4-6
   - 7-9
   - 10-12
   - 13 or above

7. How many hours are you enrolled in this semester?
   - 9 hours or less
   - 10-12 hours
   - 13-15 hours
   - 16 hours or more

8. In which school or major is your PGM program located?
   - Business/Marketing
   - Turfgrass/Agriculture
   - Hospitality
   - Recreation
   - Other (please specify)

Page 2
Professional Golf Management (PGM) Education Survey

9. How many months of internship have you completed?
   - None
   - 0-3 months
   - 4-6 months
   - 7-9 months
   - 10-12 months
   - 13 months or more

10. How many hours per week working have you averaged on your most recent internship?
   - Less than 30 hours
   - 31-35 hours
   - 36-40 hours
   - 41-45 hours
   - Over 46 hours

11. How many hours a week do you spend practicing or playing golf in your current school year?
   - None
   - 1-2 hours
   - 3-6 hours
   - 7-9 hours
   - 10 or more

12. How many times have you taken the Players Ability Test (PAT)?
   - 0 times
   - 1 time
   - 2 times
   - 3 times
   - 4 times
   - 5 times
   - 6 or more times

13. Have you passed the Players Ability Test (PAT)?
   - Yes
   - No

Questions 10 through 12 reflect the various general knowledge in a typical PGM program required for a golf professional.
### Professional Golf Management (PGM) Education Survey

14. Please rate the importance and performance of the knowledge areas provided by your current PGM program. First, please rate the perceived importance of the items to a golf professional. Then, please rate the performance of your PGM program in providing you with these knowledge areas.

<table>
<thead>
<tr>
<th>Knowledge Area</th>
<th>Importance to a golf professional</th>
<th>Performance of your PGM program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge of the basics in managing a golf operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of basic terminology used in the golf industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of human resource management practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of guest service management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of golf shop merchandising and buying practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of providing individual and group lessons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of handicapping programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge of managing employees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Please rate the importance and performance of the skills provided by your current PGM program. First, please rate the perceived importance of the items to a golf professional. Then, please rate the performance of your PGM program in providing you with these specific skills required by a golf professional.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Importance to a golf professional</th>
<th>Performance of your PGM program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills to read and understand a Profit and Loss statement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to read and understand a Balance sheet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to handle a variety of tasks at once.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to develop a marketing plan for the golf course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to manage food and beverage costs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to merchandise a golf shop.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to manage a tee sheet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to manage pace of play.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills to train and discipline employees.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Professional Golf Management (PGM) Education Survey

16. Please rate the importance and performance of the abilities provided by your current PGM program. First, please rate the perceived importance of the items to a golf professional. Then, please rate the performance of your PGM program in providing you with these abilities.

<table>
<thead>
<tr>
<th>Importance to a golf professional</th>
<th>Performance of your PGM program</th>
</tr>
</thead>
<tbody>
<tr>
<td>The ability to be caring and empathetic with guests</td>
<td></td>
</tr>
<tr>
<td>The ability to balance the needs of multiple guests at one time</td>
<td></td>
</tr>
<tr>
<td>The ability to generate an attitude of trust among co-workers</td>
<td></td>
</tr>
<tr>
<td>The ability to diligently cater to the needs of others</td>
<td></td>
</tr>
<tr>
<td>The ability to take pride in satisfying the needs of others</td>
<td></td>
</tr>
<tr>
<td>The ability to adapt to a changing environment</td>
<td></td>
</tr>
</tbody>
</table>

17. Please rate each of the following statements about yourself using the 5-point Likert scale.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can always manage to solve difficult problems if I try hard enough</td>
<td></td>
</tr>
<tr>
<td>If someone opposes me I can find the means and ways to get what I want</td>
<td></td>
</tr>
<tr>
<td>It is easy for me to stick to my aims and accomplish my goals</td>
<td></td>
</tr>
<tr>
<td>I am confident that I could deal efficiently with unexpected events</td>
<td></td>
</tr>
<tr>
<td>Thanks to my resourcefulness, I know how to handle unforeseen situations</td>
<td></td>
</tr>
<tr>
<td>I can solve most problems if I invest the necessary effort</td>
<td></td>
</tr>
<tr>
<td>I can remain calm when facing difficulties because I can rely on my coping abilities</td>
<td></td>
</tr>
<tr>
<td>When I am confronted with a problem, I can usually find several solutions</td>
<td></td>
</tr>
<tr>
<td>If I am in trouble, I can usually think of a solution</td>
<td></td>
</tr>
<tr>
<td>I can usually handle whatever comes my way</td>
<td></td>
</tr>
</tbody>
</table>
# Professional Golf Management (PGM) Education Survey

18. Please rate to what extent your internship program helps you develop the following skills using the 5-point Likert scale.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Not helpful at all</th>
<th>Extremely helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promptness</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Dependability</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Professionalism</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Initiative</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Maturity</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Time management</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Written communication skills</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Oral communication skills</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ability to work with others</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Acceptance of criticism</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work ethics</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Work attitude</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

19. Please rate the following statements using the 5-point Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I expect to have a full-time position in the golf industry following graduation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I expect that the PGM education has prepared me for an assistant professional's position</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I expect that the PGM education has prepared me to be a head golf professional immediately following graduation</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I anticipate that I will be a head professional within 5 years of graduating</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I expect to have all the tools to succeed in the industry</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I expect to be a golf professional during my entire career</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
20. This question will evaluate your overall satisfaction with your PGM program. Please rate the following statements using the 5-point Likert scale.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Extremely Dissatisfied</th>
<th>Extremely Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>The quality of classroom instruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The variety of educational offerings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The variety and quality of seminars</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The availability of internship sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The locations of internship sites available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The compensation of internship positions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to gain knowledge while on an internship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The flexibility of classes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The quality of guest speakers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overall length of the program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The overall balance of classroom and internship experiences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Your overall experience with the PGM program</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

21. Please answer the following question using the 5-point Likert scale.

How likely are you to recommend the PGM program to your friends or other students?

<table>
<thead>
<tr>
<th>Definitely Not Recommend</th>
<th>Highly Recommend</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. If you could recommend any changes to your PGM educational program, what would they be?

Thank you for taking the time to fill out this survey. A copy of the results will be available to you upon completion.
APPENDIX C: INSTITUTIONAL REVIEW BOARD PERMISSION
Approval of Exempt Human Research

From: UCF Institutional Review Board #1
FWA00000351, IRB00001138

To: David L. Smiley

Date: April 05, 2011

Dear Researcher:

On 4/5/2011, the IRB approved the following activity as human participant research that is exempt from regulation:

Type of Review: IRB Initial Review Submission Form
Project Title: Evaluating the Effectiveness of the Professional Golf Management (PGM) Program
Investigator: David L. Smiley
IRB Number: SBE-11-07585
Funding Agency: None

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Kendra Dimond Campbell, MA, JD, UCF IRB Interim Chair, this letter is signed by:

Signature applied by Janice Turchin on 04/05/2011 01:54:48 PM EDT

IRB Coordinator
REFERENCES


