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GOLFERS' PERCEPTIONS OF PACE OF PLAY

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ABSTRACT

Growth in the golf industry has been mostly flat for the past eight years. It is crucial for golf facilities to retain members and increase rounds during this current economic downturn. One way golf facilities retain members is by effectively handling the issue of slow play. Golf facilities that effectively handle slow play will experience a more content membership. The primary purpose of this study was to explore golfers' perceptions of pace of play at a public golf facility.

The extent to which golfers believe slow play is an issue was evaluated. Respondents were asked to answer a number of questions through an on-line questionnaire including the number of golf holes played weekly, the number of years as a member, and golfers perception of pace of play. The results indicated that pace of play is perceived to be a problem at the Penn State Golf Courses and the number of golf holes played weekly and length of membership are significantly related to golfers' perceptions of pace of play. More specifically, the bulk of members felt that having clocks on various tee boxes has been ineffective in improving pace of play. Also, a majority of members felt that the full-time golf course rangers have been ineffective. The results of the study indicate that the Penn State Golf Courses need to do a more effective job in improving pace of play through more useful initiatives.

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CHAPTER 1

Introduction

The golf industry has been facing hardships over the past five and a half years. For example, rounds played in 2007 were actually down a half a percent from 2006 (NGF: National Golf Foundation, 2008). While this may appear to be a marginal decrease, it is not. Growth in the golf industry has been almost flat since 2002. From 2002 through 2007, average yearly rounds played were 499.35 million (NGF, 2008); this number is down significantly from 2000 when yearly rounds were 518.4 million (NGF, 2008). Moreover, in both 2006 and 2007, there was a negative net growth in golf facility supply as more courses closed than opened each of the 2 years (NGF, 2008). Additionally, equipment sales at golf facilities across the country have been mostly flat since 2006 (NGF, 2008).

As many experts in the golf industry are trying to figure out how to turn the golf economy around and increase participation, another very interesting trend has arisen. One in five private golf clubs in America is “at-risk,” meaning the club has a poor financial self assessment (NGF, 2008). Research has shown that private clubs are doing poorly because of a decrease in membership, which is a direct result of prices, not the quality of the product (NGF, 2008). Moreover, private clubs are much more likely to open their facility to the public before they close it down completely (NGF, 2008). As private clubs are beginning to allow more outside play, the issue of slow play is undoubtedly a concern.

Given the downturn in the growth and participation rates in golf, the issue of “slow play” is absolutely pressing. As golfer retention is becoming increasingly more challenging, so is the issue of handling slow play. It is quite common to see a public golf course completely crowded and over-booked on the weekends. Golfers have to wait before every shot they hit because there are other golfers holding them up. This causes extreme backups throughout the golf course and puts the length of rounds over five hours. Twenty percent of golfers believe they experience slow play on a regular basis, and one-fifth of them say they play less golf as a result (NGF, 2007). This adds up to over one million golfers that golf less because of perceived slow play (NGF, 2007).

Amazingly, pace of play was not researched thoroughly until 1992. The two “forefathers” of pace of play research were Bill Yates and Dean Knuth. Knuth, at the time, was Senior Director of Handicapping for the United States Golf Association (USGA). Yates, on the other hand, was simply a man interested in solving pace of play issues by generating solutions for improving pace of play. Both Knuth and Yates worked closely together in implementing what is called the USGA Pace Rating System.

There is a common perception among golfers that a round of golf should take no more than four hours. However, Yates (2000) pointed out that a four hour round of golf sets expectations far too high. The now “industry standard” four hour round came from the Old Course at St. Andrews, Scotland, because of its ideal design. However, many courses today are uniquely constructed in a way that doesn’t necessarily “flow” and may cause play to be slower as a result. For example, some holes may be spaced out from the green to the next tee which could impede pace of play. Another factor in pace of play is the par of each hole and how it flows with the golf course. Yates (2000) believes an

architect should start out a golf course with a string (three to five) par fours in a row to help pace of play.

Both Bill Yates and Dean Knuth put together the Pace Rating System which analyzes the golf course's length and obstacles and green-to-tee distances to determine how long it should take to play that particular course (Weyler, 2003). Many times this system shows that a round of golf on a course could and should take well over four hours to complete. In some cases, the system could have a round of golf taking up to four and a half hours to complete.

Study Purpose

The primary purpose of this study is to document golfers' perceptions of pace of play in a public golf course setting. As many private golf facilities are beginning to allow public play, it is becoming increasingly more important to evaluate pace of play and the perceptions of golfers towards pace of play. This is especially true as more private clubs are becoming public. To accomplish the purpose of the study, the following questions are proposed:

1. What are golfers' perceptions of pace of play?
2. In terms of time, what do golfers feel is reasonable, slow, or unacceptable?
3. Are golfers' perceptions of pace of play significantly related to:
 - a. The average amount (e.g., 27 holes) of golf played weekly?
 - b. Number of years as a member?
4. What do members feel can be done to improve pace of play?

Definitions

- **Golfer:** A person who plays the game of golf.
- **Pace of Play:** Time taken to play a stroke, hole or round, usually thought of in terms of maximum allowable time with an associated penalty for exceeding that time.
- **Golf Facility:** Any 9 or 18 hole golf course open for play.
- **Golf Members:** Golfers who pay an annual fee for use of the golf facility at no cost per round besides golf car fees.
- **Initiative:** Ideas or projects used by a facility to improve their image. This includes using clocks on the golf course and implementing a full-time golf course ranger to monitor play.
- **Slow Play:** A situation typified by longer than expected pace of play.

Limitations

This was an exploratory study. Thus, the results of this study can not be generalized to the entire golfing population. Further, the study was conducted with members of a public golf course. The perception of pace of play may differ in other golf settings (e.g., resort course, private course).

CHAPTER 2

Literature Review

As the golf industry is experiencing challenges it has never faced before, it has become more important than ever to evaluate ways to modify the game. This modification can occur at many levels with perhaps the most important being pace of play. Experts like Dean Knuth and Bill Yates have extensively looked at pace of play and ways to improve it. Many sources point out that pace of play is an enormous challenge in the golf industry that must be improved or the industry will continue to see a decrease in golfer participation.

The Golf Industry Today

The golf industry is facing challenges. For the first time since 1955, in 2006 and 2007 the industry saw a negative net growth in golf facilities (NGF, 2008). In 2007, 113 eighteen-hole golf courses opened, while 121.5 golf courses closed their doors permanently (NGF, 2008). This trend holds true for all different types of golf courses whether private, public, or resort.

The private golf course sector has perhaps been the most subjected to the recent economic downturn. In some circumstances private golf courses are facing severe decreases in memberships. While many of the nation's private golf clubs report to be doing fine, 15 to 20% indicate they are facing serious challenges (Beditz & Kass, 2008). According to a survey conducted by NGF (2008), money is the biggest reason why people are canceling their memberships at private golf facilities. It is not only the price

of the memberships that are driving people away, but the perceived lack of value (Beditz & Kass, 2008). Quite simply, golf facilities with members that have more income are doing much better and are not the facilities among the “at-risk.”

The golf industry can ill-afford to remain static in its initiatives approach and watch members slip away. The most influential dynamic approach to the industry is that more and more private golf facilities are taking on more of a public golf facility approach. Rather than private clubs closing their doors permanently, they allow the public to play to increase revenue and stay in business. Many of the facilities realize that it is better to convert and be open to the public than to keep their gates open only for members. In fact, conversions from private to public clubs outnumber golf course closures by just over ten-to-one (Beditz & Kass, 2008). Almost immediately, the converted courses see an increase in rounds played and total revenue as so many of the people that could not play the course before are now able to play freely (Beditz & Kass, 2008).

The economic contribution of the golf industry is crucial to not only the national economy, but the Pennsylvania economy, as well. The importance of maintaining a stable number of golfers to generate a standard economic flow is more important than ever. The NGF (2002) conducted research to show how much of an economic impact the golf industry has on the Pennsylvania economy. The golf industry in Pennsylvania has created an enormous positive impact throughout the Commonwealth as it generated over \$1.1 billion in direct economic benefits (NGF, 2002). Also within the Commonwealth, the golf industry is responsible for over 50,000 jobs and just over \$1 billion in salaries and wages (NGF, 2002).

Golfer Retention

Golf professionals across the country understand that it is not about the golfer that plays once every other year. Rather, they realize that it is incredibly important to develop initiatives to retain not only their members, but guests and other outside golfers that play occasionally (once or twice a month). In order to keep their members and guests coming back on a regular basis, facilities have been developing ways to attract people to not only play more golf, but to utilize the facility more frequently for the entire family. The most popular golfer retention initiatives are those that engage children, women and families as a whole (NGF, 2008). Both “at-risk” facilities and “healthy” facilities are trying to develop effective initiatives to engage and retain more people in their facilities. Some clubs are offering incentive discounted rate memberships. An incentive discounted rate membership is when clubs offer memberships at lower rates. Examples of incentive discounted rate memberships are: waiving the initiation fee to join the club, offering the first two years free, or offering a membership at a lower price for younger people. Others are implementing a much more family oriented facility to attract not only the typical male golfer, but also his family. For example, golf facilities across the country have recently introduced fitness equipment in to their facilities. They are creating fitness centers in their clubhouse as fitness has become an intricate and almost necessary part of the game. Other clubs are trying a combination of initiatives in an effort to retain more people and, as a result, improve their bottom line. For example, some clubs will build both a fitness center and a day care center to appeal to a broader range of people. Along with these “within the clubhouse renovations,” there is urgency among golf professionals to deal with the issue of pace of play. As just over 70% of golfers join private clubs because of

their exquisite golf course, the course itself becomes increasingly more important as that is where a majority of the membership spends its time (NGF, 2008). As more initiatives are put into place to retain golfers, there is an increasing need to focus on pace of play because more golfers are staying at a facility.

Slow Play

The NGF (1998) indicated that 96% of golfers believe pace of play is a problem. Yates (2000) believes slow play is not about the length of time it takes to complete a round but rather about the flow of the round. This means players that consistently complain about slow play do so about waiting on every hole or waiting between every shot. Ninety-eight percent of the courses Yates evaluates have a Pace Rating of over four hours (Weyler, 2003). This is quite a change from the norms of the golf industry as so many golfers expect a four-hour round and are frustrated with anything more. Courses across the country have begun to implement initiatives to improve pace of play. Some facilities utilize clocks throughout the golf course to show players how they are doing in relation to their tee time. Other facilities utilize more employees to ranger the golf course to help speed up play. There are other facilities that utilize a pace rating system on each of their scorecards that shows the golfer the amount of time it should take to play each individual hole. Many facilities are fulfilling a combination of those initiatives as they realize the importance and necessity of a “flowing round.”

Yates (2000) indicates there are five main contributors to slow play. Management policies, player behavior, player ability, course maintenance and course design all contribute to slow play. Management policies refer to the ability of administrators and

golf professionals to implement policies congruent with the missions of the facility and in the best interest of the golf course. Poor management policies will inevitably lead to slow play as outside play will cause the number of rounds to go up and which will cause the pace of play to slow down. Player behavior refers to the pace at which golfers play their round of golf. Poor player behavior (e.g., talking to others when they should be hitting, taking more than seven minutes on the putting green) greatly inhibits pace of play. Player ability is another huge factor. In most cases, better golfers will play quicker because they spend less time looking for golf balls and hit fewer shots. Course maintenance refers to the ability of the course superintendent to maintain a “playable” golf course. The term “playable” generally relates to rough that is not thick in nature and a golf course that allows for easy golf ball location. Placing pins in reasonably flat areas is also important as five putts are not desirable as they greatly decrease pace of play. Course design is the fifth element that can contribute to slow play. If there are elevation changes throughout the golf course and if greens are very fast and sloped, pace of play will inevitably be slower. If there are many doglegs and trees throughout the golf course, pace of play will be slower. Course design is an enormous factor as it relates to slow play.

Previous studies focusing on pace of play include: *Golfers’ Attitudes Towards Slow Play* by Wilkes, Guadagnolo, and Graefe (2001) and *Exploring Golfers’ Perceptions of Pace of Play* by Wills (2002).

In the study conducted by Wilkes et al. (2001), approximately 52% of respondents indicated that less than 20% of their annual rounds could be characterized by “slow play.” On the other hand, 11% of the respondents said they experience “slow play” in the

majority (i.e., 60%) of their rounds. Most compelling to the golf professional is the fact that 86% of the respondents indicated that pace of play influenced their golf course selection and 62% stated they have quit one round or more of golf due to slow play.

In the study conducted by Wills (2002), 91% of the respondents surveyed indicated that pace of play was a problem to some degree. Moreover, 56% of the respondents stated that player behavior is the main contributor towards slow play. Similar to the results of the Wilkes et al. study, 87% of the respondents stated that pace of play influenced their golf course selection. Yet, respondents were willing to tolerate long rounds on a resort golf course more than the golf course they played most often.

Summary

As golfer retention is more important than ever, facilities are also making adjustments and renovations in order to satisfy a very dynamic golfer population. Private facilities are also finding it necessary to allow outside play as they would be experiencing substantial debt if they do not. Ideally, a study about private clubs would have been performed. However, there are many restrictions and issues with interviewing members at a private facility. Therefore, I am going to survey members of a public golf facility. While I acknowledge that there are differences between private and public golf facilities, I believe a study with members of a public golf facility will provide insight to the pace of play issue. Further, because many private facilities are becoming more public, it is important to understand how members at public facilities view pace of play and its consequences.

CHAPTER 3

Methodology

The purpose of this study is to evaluate golfers' perceptions of pace of play in a public golf course setting. In order to successfully fulfill the purpose of this study, I identified a study sample, created a study instrument, and collected and analyzed data. The procedures I followed are outlined in this chapter.

Study Sample

The population was individuals who had registered with the Penn State Golf Courses. The sample was delimited to all registered individuals who had provided the Penn State Golf Courses with an e-mail address (n=4,209)

Study Site

The Penn State Golf Courses are a 36-hole public golf facility. The 6,000 square foot clubhouse includes a golf shop and food and beverage area. Member services/amenities include changing rooms, a dining room, bag drop, online tee time reservation capability, a short-game practice area, a driving range, two 18-hole golf courses, and golf car rentals.

The Penn State Golf Courses have taken significant strides in improving pace of play by adding more golf course rangers, putting clocks by certain tee boxes, and pairing single golfers with other groups so they did not take an entire tee time themselves.

Study Instrument

In order to obtain more detailed information regarding perceptions of pace of play, I began my study by interviewing seven members and the General Manager of the Penn State Golf Courses. Based on their feedback and a review of the literature, I created an on-line questionnaire. The questionnaire consisted of questions regarding membership, involvement in golf leagues, amount and type of play, pace of play on the Penn State Golf Courses, response to pace of play initiatives, and what can be done to improve pace of play. Individuals were also asked to indicate their gender and established handicap (see Appendix A for a copy of the instrument).

A description of the study and a copy of the questionnaire were submitted to Penn State's Office for Research Protections. Approval (IRB #30644) for the study was received on Monday, April 6, 2009.

Data Collection

Data collection took place from May 18, 2009 to July 7, 2009. I began the data collection process by sending an introductory email to all individuals who had provided their e-mail address to the Penn State Golf Courses. I sent a second e-mail about one week later with the link to the on-line questionnaire. One week later, a reminder e-mail was sent to all individuals who had not yet responded to the questionnaire. Two weeks following the second e-mail, a final e-mail reminder was distributed to all non-respondents. All the reminders included a link to the survey. See Appendix A for a copy of the e-mail messages that were distributed to the study sample.

Data Analysis

Data analysis consisted of descriptive statistics (i.e. means and frequencies), which allowed me to describe the sample and its response to each question. Chi-square analysis and open-coding were used to address research questions 3 and 4.

CHAPTER 4

Results

A total of 917 individuals responded to the on-line survey. Because I was interested in individuals who would be aware of slow play as an issue on the Penn State Golf Courses I chose to include members only in the data analysis. Thus, the results that follow are based on the response of 401 individuals (44% of the respondents), 94.2% of which were male.

Following are the results associated with my research questions. First, however, is a description of the study participants.

Background of Study Participants

Membership

The first question in the survey dealt with the number of years a person has been a member of the Penn State Golf Courses. The majority (58%) has been a member for 2 years or less. Approximately one-third of respondents have been a member for one year or less. People who have been members of the Penn State Golf Courses for 10 years or more accounted for 13% of the total membership.

Table 1. Number of years individuals have been a member of the Penn State Golf Courses (n=401)

No. of years	%
Less than one	17.0
1 year	17.2
2 years	23.4
3 years	11.2
4 years	8.2
5 years	4.2
6 years	1.7
7 years	1.5
8 years	1.0
9 years	1.5
10 or more years	13.0

Note: Percentages do not add up to 100.0% due to rounding.

Average Number of Golf Holes Played per Week at the Penn State Golf Courses

The average number of golf holes members played weekly during the summer months (May through August) ranged from less than 9 to 72 holes or more.

Approximately 26% of the respondents played 36 holes on average during the summer.

The second largest group, making up 15% of the sample, included people who averaged 72 holes or more each week in the summer.

Table 2. Average number of golf holes played weekly in the summer (n=387)

No. of holes	%
Less than 9 holes	9.6
9 holes	4.7
18 holes	14.2
27 holes	10.6
36 holes	25.6
45 holes	7.0
54 holes	10.3
63 holes	3.4
72 or more holes	14.7

Note: Percentages do not add up to 100.0% due to rounding.

Rounds Played at Other Golf Courses

Respondents also indicated that they had played golf courses other than the Penn State Golf Courses summer (i.e., May through August) 2008. Of the 391 individuals who responded to this question, 88% indicated that they had played golf at a course other than the Penn State Golf Courses summer 2008.

Similarly, participants were asked to indicate how many rounds they played at private, public and/or resort courses summer 2008. A total of 334 people answered this question, most of whom indicated that they played at public golf courses more than the alternatives. Nearly all (i.e., 98%) of the respondents stated that they played a majority of their rounds at public golf courses. Private golf course play frequency was not far behind, however, as 87% indicated that they played at least one round of golf on a private course during the summer months.

Golf Handicap

A golf handicap is calculated using a specific formula approximating how much over par a golfer should be able to score. For example, if a golfer shoots five over par on a given golf course, his or her handicap will be around five. Approximately 55% of the respondents indicated that they have an established golf handicap. Approximately 80% of the respondents have a golf handicap of 20.9 or below.

Table 3. Established golf handicap of members (n=356)

Golf Handicap	%
0-5.9	17.5
6-10.9	22.7
11-15.9	22.7
16-20.9	16.9
21-25.9	10.1
26-30.9	5.3
31-35.9	3.8
36-39	1.0

Note: Percentages do not add up to 100.0% due to rounding.

League Play Amongst Study Participants

Participants were asked whether or not they are in a league at the Penn State Golf Courses. Of the 401 respondents, 81% indicated they are not in a league.

Pace of Play on the Penn State Golf Courses

On the White Golf Course, 60% of respondents stated that they play an 18-hole round of golf between 4 and 5 hours. On the Blue Golf Course, 67% of respondents indicated that they play an 18-hole round of golf between 4 and 5 hours. Approximately 8 out of 10, regardless of course, indicated that they play an 18-hole round of golf between 3.5 and 5 hours.

Table 4. Amount of time it takes members to play the Penn State Golf Courses

Please indicate the amount of time it takes you to play the Penn State Golf Courses (n=373)								
	Under 3 hours	3-3.5 hours	3.5-4 hours	4-4.5 hours	4.5-5 hours	5-5.5 hours	5.5-6 hours	Over 6 hours
White Course	2.5%	9.1%	18.2%	40.9%	19.3%	9.4%	3.3%	.3%
Blue Course	2.0%	5.5%	23.1%	44.4%	22.2%	3.5%	1.2%	.3%

Individuals' Feelings About Pace of Play

When asked if pace of play is a problem at the Penn State Golf Courses, 68% of respondents indicated “yes.” Further, when asked about some of the strategies used by Penn State Golf Courses to improve pace of play, nearly three out of ten respondents stated that having a full-time ranger at the golf courses has not improved pace of play. A similar number of participants indicated that they did think a full-time ranger was helpful in improving pace of play. One-fourth of the respondents stated that they did not even know there was a full-time golf course ranger.

Table 5. Effectiveness of a full-time ranger in speeding up pace of play

“Has having a full-time ranger been effective in speeding up pace of play?” (n=375)	
Yes	27.2%
No	29.1%
I don't know	18.4%
I didn't know there was a full-time golf course ranger	25.3%

Respondents were also asked whether or not having clocks on various tee boxes has been effective in speeding up pace of play. Six out of ten respondents indicated “no.” Only 18% of participants stated that the clocks were beneficial in speeding up pace of play.

Table 6. Effectiveness of having clocks on various tee blocks in speeding up pace of play

“Has having clocks on various tee boxes been effective in speeding up pace of play? (n=374)	
Yes	18.2%
No	59.6%
I don’t know	15.5%
I was unaware that there were clocks	6.7%

Individuals’ Beliefs About Reasonable, Slow and Unacceptable Pace of Play on the Penn State Golf Courses

Respondents were asked to share their beliefs about what is reasonable pace of play, slow play, and unacceptable pace of play on the Penn State Golf Courses.

Respondents were asked to answer this question for both the Blue and White Golf Courses. While the majority of respondents agreed on what was reasonable, the situation was quite different for slow play and unacceptable pace of play.

For the Blue Course, 51% of the 348 respondents felt reasonable pace of play was between 3.5 hours and 4 hours. Approximately the same percentage of respondents felt slow play was between 4.5 hours and 5 hours. More than one-half (i.e., 52%) of the respondents felt unacceptable pace of play occurred between 5 hours and 5.5 hours.

Table 7. Members' perception of what is reasonable, slow and unacceptable pace of play on Penn State's Blue Course

Please select a time that best defines each of the following descriptors for an 18-hole round of golf on the <i>Blue Course</i> . (n=348)								
	Under 3 hours	3-3.5 hours	3.5-4 hours	4-4.5 hours	4.5-5 hours	5-5.5 hours	5.5-6 hours	Over 6 hours
Reasonable Time	4.0%	9.2%	51.3%	44.7%	5.2%	0.9%	0.0%	0.0%
Slow Play	0.0%	0.3%	3.5%	35.9%	50.1%	15.4%	3.2%	1.7%
Unacceptable Time	0.3%	0.3%	0.6%	3.8%	32.9%	51.9%	21.6%	14.0%

In terms of the White Course, 49% of the 357 respondents believed reasonable play was between 3.5 hours and 4 hours. Forty-five percent of the sample felt slow play occurred between four and one-half and five hours. Approximately the same percentage (i.e., 46%) felt unacceptable pace of play occurred between 5 hours and 5.5 hours.

Table 8. Members' perception of what is reasonable, slow and unacceptable pace of play on Penn State's White Course

Please select a time that best defines each of the following descriptors for an 18-hole round of golf on the <i>White course</i> . (n=357)								
	Under 3 hours	3-3.5 hours	3.5-4 hours	4-4.5 hours	4.5-5 hours	5-5.5 hours	5.5-6 hours	Over 6 hours
Reasonable Time	3.4%	14.6%	49.2%	41.0%	4.8%	0.3%	0.0%	0.0%
Slow Play	0.0%	0.6%	7.1%	39.4%	45.0%	15.0%	2.8%	1.1%
Unacceptable Time	0.6%	0.0%	0.3%	8.5%	36.4%	46.0%	21.9%	13.1%

The Relationship Between Pace of Play and Average Number of Holes Played Weekly

The relationship between golfers' perception of pace of play and the average number of holes they play weekly was addressed through a chi-square test of independence. The relation between these variables was significant, $\chi^2 = 16.415$, $p=.04$. Individuals who, on average, play more holes per week are more likely to perceive pace of play to be a problem than individuals who, on average, play less holes per week.

Table 9. Chi-square results for the relationship between pace of play and the average number of holes played weekly

No. of holes played weekly	Pace of play as a problem		Total
	Yes	No	
Less than 9	26	12	38
9	7	11	18
18	29	26	55
27	29	12	41
36	60	39	99
45	22	5	27
54	29	10	39
63	8	5	13
72 or more	40	16	56
Total	250	136	386

The Relationship Between Pace of Play and Years of Membership

The relationship between golfers' perception of pace of play and the number of years as a member was addressed through a chi-square test of independence. The relation between these variables was significant, $\chi^2 = 16.477$, $p=.01$. Individuals who have been members longer are more likely to perceive pace of play to be a problem than individuals who have been members for a short period of time.

Table 10. Chi-square results for the relationship between pace of play and years of membership

Years of membership	Pace of play as a problem		Total
	Yes	No	
Less than 1	36	32	68
1	38	31	69
2	56	38	94
3	32	13	45
4	28	5	33
5	14	3	17
6 or more	16	7	23
Total	220	129	349

What Can be Done to Improve Pace of Play on the Penn State Golf Courses?

Respondents were asked to present ideas they have for improving pace of play on the Penn State Golf Courses. A total of 214 respondents answered the open-ended question. To identify common themes among the responses, I reviewed and coded each member's response. I then grouped each response according to its code. A table of the final groupings can be found in Appendix B.

The most common types of ideas were to have rangers enforce/assist with pace of play (n=58) and build in more space between tee times (n=36). In addition, at least five percent of the respondents indicated that a solution to slow play could include cutting the length of the rough (n=17), adding more/having a greater presence of rangers (n=14), and having starters tell players to keep up a brisk pace of play (n=10).

CHAPTER 5

SUMMARY AND DISCUSSION

The results of this study are specific to the Penn State Golf Courses and its membership.

Research Question 1: What are golfers' perceptions of pace of play?

Over two-thirds of respondents indicated that pace of play is a problem at the Penn State Golf Courses. Nearly one-third of respondents indicated that having a full-time golf course ranger has not been effective in improving pace of play. One-fourth of respondents stated that they did not even know there was a full-time golf course ranger. Six out of ten respondents indicated that having clocks on various tee boxes has not been effective in speeding up pace of play. Only 18% of respondents stated that the clocks have improved pace of play.

Research Question 2: In terms of time, what do golfers feel is reasonable, slow, or unacceptable?

Respondent's perceptions of reasonable, slow, or unacceptable pace of play was similar on both the Blue and White golf courses. The majority of the respondents for both golf courses indicated that reasonable pace of play was between 3.5 and 4 hours and slow play was between 4.5 and 5 hours. Similarly, a large majority of respondents for both courses indicated that unacceptable pace of play was between 5 and 5.5 hours. Changing the perception of time could prove to be crucial for many golf operations.

Generally, golfers will not think a round is slow as long as there is a flow to the round (Yates, 2000).

Research Question 3a: Are golfers' perceptions of pace of play significantly related to the average amount of golf holes played weekly?

On average, respondents who play more holes a week are more likely to perceive pace of play as a problem at the Penn State Golf Courses.

Research Question 3b: Are golfers' perceptions of pace of play significantly related to the number of years as a member?

On average, respondents who have been members longer are more likely to perceive pace of play as a problem than respondents who have been members for a shorter period of time.

Research Question 4: What do members feel can be done to improve pace of play?

A majority of respondents indicated that having a full-time golf course ranger enforce/assist in pace of play issues would be the most effective way to improve pace of play. The second most popular response was having more space between tee times. Other popular responses included cutting the length of the rough, utilizing starters more efficiently by having a greater presence, and having the starter inform players to keep a brisk pace of play.

Discussion

As golf in Pennsylvania accounts for over \$1.1 billion in direct economic benefits (NGF, 2002), I had suggested that it may be important to retain golfers by putting in place effective pace of play initiatives. The results of this survey suggest that while important, it may not be as crucial a strategy as I had theorized.

The results of this study indicated that only 68% of respondents at the Penn State Golf Courses perceive pace of play to be a problem. This finding deviates from those of the NGF (1998) and Wills (2002) who reported that between 91% and 96% of golfers believe pace of play is a problem. This deviation may be due to the fact that the NGF's study encompassed hundreds of golf facilities and Wills' focused on only twelve golf facilities. Therefore, Wills' study may have been at facilities where pace of play was more of an issue than the NGF's national averages suggested.

While my finding differed substantially from the findings reported by the NGF and Wills, it is important that managers and golf professionals alike note the discrepancy because it highlights the necessity for each facility to conduct assessments of their own membership to determine the extent to which pace of play is a problem.

The Blue and White golf courses at Penn State are very different in terms of their course layout, yet, golfers' perceptions of what is reasonable, slow, and unacceptable pace of play were very similar for both courses. Nearly half of the respondents indicated that reasonable pace of play was between 3.5 and 4 hours, regardless of course. Also, half of respondents stated that slow play was between 4.5 and 5 hours. These findings are interesting, especially in light of the fact that nearly all golf courses Yates has evaluated with the USGA Pace Rating System have a pace rating of over four hours

(Weyler, 2003). These findings suggest that individuals who play the Penn State courses have an unreasonable expectation of what is “reasonable” pace of play. With this in mind, the Penn State Golf Courses can get the courses pace rated to find out exactly how long it should take to play a round of golf at each the Blue and White golf courses. They could then post the time it takes to play each hole on the scorecard so players know how long it takes to play a round of golf. They could also communicate the pace rating through the starter, web site, and signage in the golf shop and locker rooms.

When individuals were asked what can be done to combat the problem of pace of play, the most common response was to have Course Advisors enforce/assist in pace of play issues. The Penn State Golf Courses need to ensure the Course Advisors are visible on the golf course and that they are doing more than simply driving around on the course and not evaluating pace of play issues. The second most common response was putting more time between tee times. This becomes extremely difficult as the facility has to walk a fine line between maximizing profit by putting tee times closer together to increase rounds and ensuring golfers are happy and able to play a round of golf at a reasonable pace by putting more time between tee times. The third most common response was to “cut the length of the rough.” This is congruent with the NGF’s (2000) findings that one of the five contributors to slow play was maintaining a playable golf course. This includes managing the length of the rough so players can easily hit the golf ball out of it and so they can find the golf ball quicker.

Recommendations

While the results of this study contributed to our understanding of pace of play as an issue for golfers, further research is necessary. Specifically, researchers should consider repeating this study at public, private, and resort golf facilities across the country. Doing so would allow the industry to analyze trends at all types of facilities versus primarily focusing on public facilities in central Pennsylvania. Further, the industry would obtain a broader perspective of golfers' perceptions as they relate to pace of play.

In addition, future research should address the extent to which golfers' selection of a golf course is related to that course's pace of play. This would greatly benefit the staff at golf courses as they would understand exactly how much perceived pace of play affects peoples' selection of a golf course. Staff could make adjustments based on individuals' perceptions and minimize the extent to which pace of play is perceived to be a problem. They could also influence the decision making behavior of potential golfers.

References

- Beditz, J., & Kass, J. (2008). The future of private golf clubs in America. *National Golf Foundation*.
- National Golf Foundation. (1998). *Slow play...slow progress?* On-line:
www.ngf.org/whatsnew/OLD/story35.html
- National Golf Foundation. (2007). *Inside the ropes*. Retrieved October 2, 2008 from
<http://www.ngf.org/cgi/itr.asp?storyid=37>
- National Golf Foundation. (2008). Golf industry report. *NGF's Golf Business Symposium 2008*. Retrieved October 2, 2008, from
<http://www.ngf.org/cgi/golfindustryreport.asp>
- National Golf Foundation. (2002, August). *The economic contribution of the golf industry to the Pennsylvania economy*. Jupiter, FL: Author.
- Weyler, J. (2003). Working out with waits [Electronic version]. *Los Angeles Times*, pg. S-12.
- Wilkes, G. B., Guadagnolo, F., Graefe, A. (2001, August). Slow play: Reality or myth. Golfers' attitudes towards slow play. Poster session presented at Science and Golf IV: Proceedings of the World Scientific Congress of Golf, St. Andrews, Scotland.
- Wills, J. (2002). Exploring golfers' perceptions of pace of play. Honors thesis, The Pennsylvania State University, University Park, PA.
- Yates, B. (2000). National Golf Course Owners Association. *Pace of Play Manual*. pp. 9-32.

Appendix A
Study Instrument

First page of on-line questionnaire

Thank you for agreeing to participate in this study!

This study about members' perception of pace of play is being conducted for the Penn State Golf Courses. Should you choose to complete the following questionnaire, you will be asked to respond to 12 questions, most of which have to do with your golfing experience and your perceptions of pace of play at the Penn State Golf Courses. The questionnaire should take no more than 10 minutes to complete.

Please note that your participation in this study is completely voluntary. You can stop at any time. You do not need to answer any question you do not want to answer. In addition, your participation is confidential. In the event of publication or presentation resulting from this research, no personally identifiable information will be shared because your name is in no way linked to your responses. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data via the Internet by any third parties.

You must be 18 years of age or older to participate in the study. Completion of the questionnaire implies that you have read the information on this page and consent to take part in the research. Please print a copy of this consent statement for your records. If you have any questions about this study, please feel free to contact me or my advisor.

Thank you,

Matt Bird
801 Ford Building
University Park, PA 16802
(570) 259-2156

Deb Kerstetter, Study Advisor
801 Ford Building
University Park, PA 16802
(814) 863-8988

Part 1: General Background Questions

1. How many years have you been a member of the Penn State Golf Courses? _____
Years

2. Are you a member of a league at the Penn State Golf Courses?

Yes , please indicate which league(s) _____

No

3. You indicated that you have been a member of a league at the Penn State Golf Courses. Please indicate which league(s) in the space provided below.

4. On average, how many golf holes do you play weekly in the summer (i.e., May through August)? _____
holes

5. Did you play golf courses other than the Penn State Golf Courses last summer (i.e., May through August 2008)?

Yes

No

6. To the best of your ability, please indicate how many rounds you played at Private, Public and/or Resort courses last summer (i.e., May through August 2008).

Private _____

Public _____

Resort _____

Now we would like you to consider pace of play on the Penn State Golf Courses, only.

7. Please indicate the average amount of time it takes you to play the Penn State Golf Courses.

8. Has having a full-time golf course ranger been effective in speeding up pace of play?

Yes

No

9. Has having clocks on various tee boxes been effective in speeding up pace of play?

Yes

No

10. Do you believe pace of play is a problem at the Penn State Golf Courses?

Yes

No (skip to question 12)

11. What do you believe the Penn State Golf Courses can do to improve pace of play?

12. Keeping in mind your experience at the Penn State Golf Courses, please select a time that best defines each of the following descriptors for an 18-hole round of golf on the Blue Course? (Check one value for each row)

	Under 3 hours	3-3.5 hours	3.5-4 hours	4-4.5 hours	4.5-5 hours	5-5.5 hours	5.5-6 hours	Over 6 hours
a. Reasonable time								
b. "Slow play"								
c. Unacceptable								

13. Keeping in mind your experience at the Penn State Golf Courses, please select a time that best defines each of the following descriptors for an 18-hole round of golf on the White Course? (Check one value for each row)

	Under 3 hours	3-3.5 hours	3.5-4 hours	4-4.5 hours	4.5-5 hours	5-5.5 hours	5.5-6 hours	Over 6 hours
a. Reasonable time								
b. "Slow play"								
c. Unacceptable								

14. What is your gender? Male Female

15. Do you have an established handicap?

Yes, what is your established handicap? _____

No, what is your average score for an 18-hole round of golf? _____

Thank you!

To have your name entered into the drawing for two groups representing four rounds of golf each, including a golf cart, please provide your contact information (i.e., name, phone number and/or e-mail address) in the space below. If you do not want to have your name entered into the drawing, please leave the space blank.

Appendix B
Ideas for Improving Pace of Play

Ideas for Improving Pace of Play n=214

Rangers enforce/assist pace of play	58
More spacing between tee times	36
Cut length of rough	17
More rangers/greater presence/more visible	14
Starter informs players to keep brisk pace of play	10
Allow faster groups to play through	9
Play ready golf	8
Manage number of players per group	7
Limit on strokes per hole	5
Less time looking for lost golf balls	5
Fewer tee times	5
Explain course etiquette	5
Starters enforce that late groups must wait until next open time	4
Pair people together to produce foursomes instead of single players	4
Educate beginners on pace of play and its importance	4
Handicap requirement to play certain tees	3
Use clocks on tee boxes	2
Starter always present	2
Alter golf course setup	2
Split slow foursomes in two groups	1
Require golf cars	1
Reduce number of memberships	1
Post starting time on golf cars	1
Limit groups to 3 people during peak times	1
Have spotters assist in finding golf balls	1
Fewer tournaments/leagues	1
Don't let the public play directly behind a league	1
Continuous putting	1
Contacting people who play slow regularly	1
Allow players to warm up before rounds by giving 1 free token	1
Allow golfers to play only 9 holes and use both the front and back nine	1
Allow access to both courses with any membership	1
3 putt max policy	1

ACADEMIC VITA of Matthew L. Bird

Matthew L. Bird

250 Toftrees Avenue, State College, Pennsylvania 16803

Phone: (570) 259-2156 E-Mail: mbird@pga.com

Education

The Pennsylvania State University, University Park, PA

Major: Bachelor of Science in Recreation, Park and Tourism Management

Concentration: **PGA Golf Management**

Minor: Business

Schreyer Honors College Student

Thesis: Golfers' Perceptions of Pace of Play

Overall GPA: 3.94/4.00

Golf Professional Experience

The Pennsylvania State University

August 2009 – December 2009

Instructor, Data Analysis, Student Assistance, PGA Golf Management Program

- ◆ **Instruction** – Educate PGA Golf Management students on the fundamentals of golf; tailor coaching to meet individual needs; conduct weekly individual lessons with more than ten students
- ◆ **Data Analysis** – Produce top internship sites list; generate internship analyses for each internship site; analyze Playing Ability Test pass rates
- ◆ **Student Assistance** – Review résumés and PGA course work with students; coordinate video equipment use for golf lessons; produce weekly internship possibilities e-mail
- ◆ **Additional Responsibilities** – Perform Titleist clubfittings; discuss program with potential students and their parents; generate invitation letters, fliers and promotional material

Cherry Hills Country Club

May 2009 – August 2009

Golf Shop Assistant

18 Hole, private member-owned country club, William Flynn design

Ranked #54 in Golf Digest's America's Top 100 Golf Courses 2009-2010

- ◆ **Golf Shop Responsibilities** – Served as customer relations agent; executed Point of Sale operations using POS Express System and ForeTees reservation system; fulfilled special order requests for members; produced promotional material for special events
- ◆ **Tournament Operations** – Coordinated Par 3 event including set-up and post-tournament follow-ups with members; employed GHIN system for monitoring handicaps; utilized calligraphy to produce scoreboards; produced billing sheets, cart signs and results pages; prepared facility for group outings and tournaments; implemented weekly ladies' games
- ◆ **Golf Instruction and Member Relations** – Conducted numerous junior golf clinics; promoted and played golf with the entire membership

- ◆ **Additional Responsibilities** – Served as golf course advisor, which included strict pace of play supervision; maintained store room organization; performed weekly inventory counts

Olympia Fields Country Club

May 2008 – August 2008

Golf Shop Assistant

36 Hole, private member-owned country club, Willie Park Jr. design

Ranked #43 in Golf Digest's America's Top 100 Golf Courses 2009-2010

Ranked #1 in GolfWorld's Best Private Golf Shops in America 2008

- ◆ **Golf Shop Responsibilities** – Interacted with members and guests daily; utilized POS System; handled cash register daily; checked in and positioned merchandise in shop daily
- ◆ **Outside Operations** – Managed driving range; coordinated golf car staging; maintained bag storage area; served as golf course starter and golf course advisor
- ◆ **Golf Instruction and Member Relations** – Assisted in instruction of junior golf camps; facilitated customer satisfaction; played golf with members and guests regularly
- ◆ **Additional Responsibilities** – Performed Titleist clubfittings; organized storage room regularly; participated in monthly inventory counts

Hershey Country Club

May 2007 – August 2007

Junior Golf Program Coordinator and Golf Shop Assistant

36 Hole, resort-owned by Hershey Entertainment & Resorts, George Fazio and Maurice McCarthy design

Ranked #68 in Golf Digest's America's Top 75 Golf Resorts 2009-2010

Site of 2011 PGA Professional National Championship

- ◆ **Golf Shop Responsibilities** – Arranged merchandise in shop weekly; created merchandise displays; processed cash transactions daily; operated POS System
- ◆ **Junior Golf** – Developed unique programs; managed weekly clinics; produced activity agenda weekly; assigned staff members to stations; coordinated junior golf championship through course set-up, pairings and scorecards; selected prizes and created certificates
- ◆ **Tournament Operations** – Produced pin sheets for outings; designed pre- and post-tournament documents; participated in “beat the pro” events; served as course advisor during outings
- ◆ **Golf Instruction and Member Relations** – Conducted private lessons to members and resort guests; offered tips to members on practice range; enhanced member relationships through weekend games; served as liaison between members and resort guests

Golf Shop Assistant and Outside Service

June 2005 – August 2006

Frosty Valley Country Club

Maintenance and Outside Service

June 2004 – August 2005

Cherokee Golf Course

Professional Involvements and Certifications

PGA Affiliate – Fall 2006 – Present

PGA Golf Management Student Society – Fall 2006 – Present

- ◆ Vice-President – Fall 2009 – Spring 2010
 - Coordinate high profile guest speakers
 - Manage community golf events
 - Develop and update Student Society's Policies and Procedures Manual
 - Mentor underclassmen
- ◆ Junior Class Representative – Fall 2008 – Spring 2009
- ◆ Mentor Chair – Fall 2007 – Spring 2008

Passed PGA of America's Playing Ability Test – October 2006

PGA of America's PGA Golf Management (PGA/PGM) Program completed to date:

- ◆ Level 1 completed – March 2008
- ◆ Level 2 completed – March 2009
- ◆ Level 3 completed – March 2010
- ◆ PGA Membership anticipated completion – August 2010

Community Outreach

Penn State University (University Park, PA) – Golfapalooza Junior Golf Program Lead Golf Instructor (Spring 2008), Gobbler Golf cross country style event (Fall 2008), Long-Drive-A-THON for kids with cancer (Fall 2008), Phi Gamma Nu Professional Business Fraternity golf clinic program coordinator and administrator (Fall 2009)

Golf Playing Ability and Achievements

Penn State University (University Park, PA) – PGA Golf Management Student Society Tournaments

- ◆ Winner – 3 times
- ◆ Runner-up – 2 times
- ◆ Guady Cup – Participant (2009 & 2010), Captain (2010)

Honors and Awards

Paul Runyan Collegiate Golf Management Scholarship (University Park, PA) – Awarded based on growing oneself through education and giving back to the game of golf (Summer 2009)

Callaway Leadership Conference (Port St. Lucie, FL) – One of two participants selected from program. Collaborated with leaders of the PGA of America and leaders of other PGA Golf Management Programs (Spring 2009)

Mills Family Honors Scholarship (University Park, PA) – Awarded based on excellent academic records and extra-curricular involvement (Spring 2009)

Fred M. Coombs Scholarship (University Park, PA) – Awarded based on high academic achievement (Spring 2008)

Frank B. Guadagnolo “Pride of Lions” Student Award (University Park, PA) – Awarded based on involvement, improvement and commitment to the PGA Golf Management Program. Awarded to student who shows sincere interest in others and contributes to students’ growth personally and professionally (Spring 2010)