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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

PLAYING DOWN TO THE COMPETITION? MAKING SENSE OF A GOLFER'S FREQUENTLY USED EXCUSE

A dissertation submitted in partial fulfillment of

the requirements for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

by

Alejandro Regalado

2022

To: Dean William Hardin
College of Business

This dissertation, written by Alejandro Regalado, and entitled Playing Down to the Competition? Making Sense of a Golfers Frequently Used Excuse, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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George Marakas, Major Professor

Date of Defense: _____

The dissertation of Alejandro Regalado is approved.

_____
Dean William Hardin
College of Business

_____
Andrés G. Gil
Vice President for Research and Economic Development
and Dean of the University Graduate School

Florida International University, 2022

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DEDICATION

I would like to dedicate this research study to my entire family that have been nothing but supportive through the entire process. I thank you for providing the extra push when the classes and papers got tougher and tougher. Family, it is time for dad to make up for all the times I could not be at parties or events while working on the study or reading or simply polishing a portion of the literature review. Thank you all for always understanding, and let this serve as guidance for you, that if I can accomplish this high level of education, you can do it and in much simpler fashion than I did! WE MADE IT!

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I would like to acknowledge and thank my entire cohort who are all exceptional leaders, family-oriented individuals, and more importantly genuinely caring and approachable human beings who are willing to assist at any given time. I would like to also send a special thank you and appreciation to the entire Florida International University DBA faculty who would always sacrifice some of their little free time to ensure our questions were answered and we all were accompanied on this journey. Lastly, to Dr. Marakas who made this entire dream a reality for the entire cohort. From the very first interview, to the rigorous phases of the program you were the tough voice when we needed the most clarity and guidance, thank you!

ABSTRACT OF THE DISSERTATION

PLAYING DOWN TO THE COMPETITION? MAKING SENSE OF A GOLFERS FREQUENTLY USED EXCUSE

by

Alejandro Regalado

Florida International University, 2022

Miami, Florida

Professor George Marakas, Major Professor

Golf is a sport that continues to develop throughout the years. The development of the sport exceeds the fascinating technological advances of the clubs, balls and gadgets and has taken a new sector of people by storm. Every year golf seems to capture a new audience and more over a new generation of women have taken a liking to the sport. With all these great advances there still seems to be a question out there on why performance fluctuates so much? This fluctuation can be seen by the avid sports observer on any weekend of a PGA tour event, yearly seasons and monetary winnings lists where seldomly does a golfer rule the sport for a long time how it is often seen in other sports. Our research focuses on a mental phenomenon that causes weekend golfers some of the same stresses. Opposite of a professional golfer, weekend golfers do not know the root cause of their inconsistent play, some blame the weather, while others blame new equipment, or old equipment. With every excuse a golfer gives, one has stood out to us more than others as it takes the mental aspect of the sport to another level. “I played bad because the person I was playing against was so good, (or so bad), that it affected my play”. This excuse seems to have merit within the golfing community as the many golfers

we have spoken to on this journey seem to agree with the statements. The theoretical framework this research will draw from is social learning theory and in particular the subfactor of self-efficacy, which is the degree of one's feeling about one's ability to accomplish his or her goals (Bandura, 1997). Does the self-efficacy of a golfer change because they are playing with a golfer of a substantial difference in skill level, and does this change cause a less than usual performance?

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1. Introduction.

Golf is a sport that encompasses both skill and mental strength where the two can be equally important to performing at a top level. Players of all skill levels seek competitive advantages or factors that contribute to better performance. The problem at hand is discovering any truth to the belief that one plays “up” or “down” to the level of their competition, or in this case their playing partner. Whether this is a built-in mental excuse created by years of hearing this same cliché used by others or is there actual truth to this phenomenon is the problem this research will be focusing on.

Uncontrollable factors such as weather, course conditions, luck and other variables make golf a sport where perfection is impossible and expert level (sub five handicap) extremely hard to achieve. The main goal of this research is to give players the understanding, and in some cases the control over a factor of their round (playing partner) that in most cases they could control if they knew a moderating performance factor existed. In some instances where the pairings are uncontrollable the awareness of the negative affect can help a player better prepare both physically and mentally. This elimination of a golfing factor that can be controlled can essentially have a positive effect on a player’s overall performance (score), attitude, preparation and ultimately help create mental toughness, a core skill all players strive to improve.

A strong argument made for the identification of the “ideal pairing” by handicap is something that can have a positive impact on the game of golf. This research will be mainly focused on the weekend golfer where handicap levels can range in large intervals and pairings can really be negatively dispersed (handicap wise). At the professional level, handicaps are all relatively identical so gauging a correlation of negative play moderated

by the “playing partner” seems to have no impact on the game of golf. Currently many amateur and weekend golfers leave tournaments upset that their illogical and imbalanced pairing is the reason they played so poorly.

In most tournaments either for fun, charity or bragging rights, players still want to compete and play their best. In most tournaments when amateurs sign up for local golf tournaments, they are paired or “flighted” with other players either by last name, time of registration or organizational affiliation and rarely paired by handicap level or indexes. More serious amateur tournaments do flight players based on handicap, but this too is on a first come first serve system where many players are just thrown into a random grouping in order to book the golf course and set the tee times. One of the strongest complaints tournaments directors hear at the end of the tournament is how bad of a time a golfer had because their playing partner was extremely poor and unskilled, and their performance struggled because of it.

Directors usually give an assortment of responses to these claims, but the most commonly used answer is that there is not enough time for them to set pairings that are ideal for all. Another commonly referred to response is “stop making excuses, your partner did not hit the ball for you”, and although true, it is not a response many paying customers and competitors want to hear. So, what is the true gripe of these golfers? Golfers want to play with other golfers who are in the same range of skill and score and essentially roughly around the same handicap.

When considering a golfer’s handicap many things come to mind such as how high or low their handicap has been at any given point in their playing days. The belief of this study is that if a higher handicap player plays with a low handicap player the effect

will be more negative on the better player simply because they have to endure a round of mediocracy while the worse golfer can benefit from watching a nice tempo swing and get into a nice rhythm as they aren't waiting as long in between shots. The root question the study begs to answer is how much difference or degree of handicap between playing partners must there be in order to see an effect on their partner. As indicated by one of the hypothesis's a degree difference skill level can have a negative effect on self-efficacy and in turn a negative effect on performance.

Let's take a ten handicap for argument's sake, and pair them with a scratch golfer, meaning a handicap of zero and a degree difference of ten between the two golfers. One of the beliefs would indicate that the ten-handicap player would benefit from this pairing, however because the degree of handicap is over our theorized five neither player would benefit, and the higher handicap would struggle as their self-efficacy may dip in knowing they cannot score better than their playing partner. Conversely the zero handicap may also suffer or not play to their full potential as they may encounter a partner that is not up to the level they are used to playing with. These findings and understanding can be a win for golf and a win for the business world of golf.

Further, this paper will provide more to the existing literature on self-efficacy in sports and in general, and golf in particular. Coaching philosophies may be changed or tweaked to include lessons on just how self-efficacy can be changed in round, post round and pre round which can affect performance. Previously, scholars have hypothesized that one of the most influential factors in self-efficacy development is directly aligned with the athlete-coach relationship Several scholars have hypothesized that the most influential

contextual factor in self-efficacy development is the athlete-coach relationship (Hampson & Jowett, 2014).

Coaches and PGA professionals can create lessons where players are pitted against degrees of handicaps that are far apart and create adverse situations to train on keeping focus and self-efficacy as strong as possible for the duration of the round. Handicap app developers can create a feature to display the optimal pairings for tournament directors that can level the playing field for a more “fair” and fun experience for golfers. Tournaments who follow this optimal pairing calculation can use it as a promotional tool to draw in previously frustrated players and players with perceptions that the pairings are rigged in one way or another.

Tournaments can monetize the use of this system as a premier destination for all golfers regardless of skill and experience a truly “leveled” playing field for all. Handicaps are not the only things that determine whether a player is good or bad. For instance, players can take lessons to improve and bridge gaps in handicaps, or they can boost their game by means of club fittings or even a better approach to a healthy and more fit lifestyle.

The first step for someone taking up golf and wanting to be competitive would be to find a PGA pro in their area and begin taking lessons. A golf lesson would give amateurs the correct steps needed to try and better themselves in a game of misses. More important however is the practice time needed to incorporate the mechanics learned. In recent years Korean women have dominated the LPGA tour and this success is not by accident, in can be contributed to the amount of time these players spend with their coach and on the range practicing. In Korea there were only 212 golf courses registered in 2010

by the Korean Business Association, in comparison there are 2,645 courses registered in the UK and 15,400 in the U.S. (Kim, Kim, & Kim, 2010).

Further, these courses provide extremely poor conditions to practice, so why the success? Korean female golfers are known for practicing more and harder than women from other countries and a direct study between European women golfers and Korean women golfers displayed quite the discrepancy with Korean women practicing on average about ten hours more a week (Kim, Kim, & Kim, 2010).

Perceptions about golf as a sport have evolved throughout the years. The beliefs were that golf was not an athletic sport or an "old man's game" and along came strong athletes such as Tiger Woods and Brooks Koepka just to name a few. These athletes are conditioned as well as athletes of other sports and for the most part today's game is dominated predominately by extremely well-conditioned players. Studies have also displayed that the better conditioned the golfer the better performance they will have. In 2011 a study found that increased club head speed which is extremely positive towards better performance was gained by a select set of workout routines. Further findings from this 2011 review suggest that strength and conditioning programs can have a positive effect on the golf swing and as well as the overall fitness characteristics of golfers (Smith, Callister, & Lubans, 2011). Along with fitness, perceptions about equipment have come along way as well, primarily when dealing with club fittings.

A golf club fitting is perceived to improve golf performance, meaning the better and sometimes more expensive equipment you play with the better chances you have of improving your performance outputs. A golf club fitting is a process that ensures the clubs you are going to use match your swing speed, swing path and your tenancies. A

golf fitting encompasses two important factors, one is when a golf fitting expert has a player hit their current clubs to accurately measure their outcomes and determine their needs. The second factor is when the fitting begins, the clubs are assembled by specifications to tailor the player. These fittings can be beneficial to a player's overall success.

A kinesthetic study conducted about swing performance displayed that interactive effects revealed that swing performance gains were particularly pronounced when participants had the benefit of a properly fitted club (Bertram, Guadagnoli, & Hayes, 2007). In order to gauge effects of the golf fitting players unknowingly used either a properly fitted club, a purposely poorly fitted club, or the same standard club they have used previously with results still showing maximum outputs when golfers used properly fitted equipment (Bertram, Guadagnoli, & Hayes, 2007). Although all these factors are truly important to the game of golf and competition, they are not our primary focus of this research.

At the culmination of the research, the main goal is to understand if playing with someone of significantly different skill level would indeed effect performance as well as help understand what the ideal pairing for indexed/handicap golfers is using a range between a five handicap and twenty a handicap. Further, the findings can develop an understanding that playing with a lesser skilled golfer can affect a golfer's scores and swing, therefore golfers and coaches can implement mental trainings where these circumstances are addressed, and plans are made to combat the issue. On the other hand, the research can also uncover that these factors have no true impact on a player's performance and therefore help a player reduce this mental blockage/stigma. Specifically,

this study seeks to answer the following research question: **What is the effect on a golfer's performance when playing with someone with a significantly different skill level?**

2. Literature Review.

For this research we will use factors of Bandura's Social Learning Theory and how it can affect a golfer's round. Social Learning Theory incorporates both behaviorism and cognitive theories of learning as a deep dive to how people truly learn or how they perceive learning (Bandura, 1997). Bandura has broken his theory down into four factors: attention, retention, motor reproduction and motivation, however in a broader sense and in basic form, social learning theory explains how a person can learn by observing the behaviors of other (Kretchmar, 2019).

Briefly exploring the four main factors of Bandura's learning theory allows us to choose the component that most closely relates to answering our research question. The first factor: attention, explains that one cannot learn if they are not focused on the task at hand, if something else grabs our attention we are more than likely going to focus on the new item (Wheeler, 2017). After rounds, golfers tend to elaborate on how their focus on that given day, was instrumental to their success or lack of success on the course. Secondly, Bandura (1997) states retention is remembering what you paid attention to or someone's ability to remember certain behaviors. The ability of a golfer to retain motions, skills and behaviors that helped achieve desired outcomes displays the importance of the retention factor of social learning and contributes to a golfers overall performance.

Next, motor reproduction is where we are believed to recall previously learned information or skills when the time requires us to do so (Wheeler, 2017). Lastly, we look into motivation which identifies that our internal motivation is key in doing anything, therefore if we do not have the right mindset our learning may not be fully executed,

furthermore our memories of one being rewarded or punished for a certain behavior leads to stronger or weaker motivations in learning (Wheeler, 2017).

Although this research will focus on the several aspects of Social Learning Theory, Self-Efficacy is the one sub-factor that will be used most and used to shape the research. Bandura (1997) defines self-efficacy as the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations. Strong self-efficacy beliefs which are related to the performance of a particular task dictate not only how people feel and think but also how they behave. These strong beliefs have also been linked as strong predictors of performance and success (Lardon, 2008; Nicholls et al., 2010; Schunk, 1995; Weinberg & Gould, 2018). In sports, a player's beliefs in their athletic abilities are requisites for their success and (Nicholls, Brandrup-Wognsen, Mike, & Barter, 2010), it is essentially needed to accomplish peak performance.

In 2001 an examination of 18 studies which explored the self-efficacy of athletes demonstrated a strong correlation between performance and strong efficacy beliefs (Feltz & Lirgg, 2001). Conversely self-efficacy can have a detrimental effect on one's choices, their efforts and ability to accomplish desired tasks (Bandura, 1997). Feltz and Lirgg (2001), argue that self-efficacy shapes one's motivation and commitment in several aspects of life which include academics, careers and sports. The Feltz and Lirgg study further demonstrated that self-efficacy belief was the most reliable and accurate predicators of performance success in comparison to other variables (2001).

Additionally, there are subfactors of Bandura's (1977) social learning theory, such as vicarious experience that we feel directly correlates to a golfer's round of golf and in

turn their performance. As a subfactor of social learning theory, Bandura (1977) defines vicarious experience as learning through the environment and through the process of observation, the ability to learn by watching others (Bandura, 1977). In golf this learning process or environmental learning can affect both a great golfer watching a poor golfer commit compounding errors, a poor golfer watching a great golfer by not being able to emulate their swing and reactions to certain situations on the course.

Bandura's theory that humans learn from one another has been taken into different spaces by other theorists such as Etienne Wegner (1998), Wheeler (2017) and Deborah Feltz (1988). Several key assumptions about social learning theory were provided by Wenger's previous works in the field.

These assumptions were prompted by four main beliefs on human behaviors. First Wegner argued that human beings are fundamentally social, next he had a belief that learning is at the very core of human existence (Wenger, 1998). Next, Wenger (1998) posits that knowing does not just occur, it requires an active participation in an enterprise we care about. Several learning communities exist in the social learning space with the shared belief that human identities change as they learn (Wenger, 1998). In the context of this paper, social learning theory will be viewed in the prism of sports, specifically golf, an individual sport.

For this study, we examine how playing with someone of significantly different skill level which is viewed by golfing aficionados as "handicap", affects a golfer's particular round where they do not play to the potential of their handicap level.

To recognize whether some noise or variance takes place within the stated phenomena, we must understand the true meaning of a golf handicap. A golf handicap is

a worldwide scoring system that allows players of all abilities to compete equally (Today's Golfer, 2014). Golf digest refers to a handicap as a measure of a golfer's potential ability compared to an expert's ability (Yocum, 2008). Although there are different versions of a true definition for a golfing handicap the general reason it is in place is to level out the playing field and provide competitiveness to a game where the skill levels may be of a grand degree apart. The better the golfer, the lower their handicap is, and conversely the worse a golfer is, the higher their handicap would be.

The United States Golf Association states that the overall purpose is to enhance the enjoyment of the game of golf and to give as many golfers as possible the opportunity to obtain and maintain a handicap index, use their handicap on any course across the world and compete or play a casual round with anyone on a fair and equal basis (United States Golf Association, 2020).

Handicap indexes are extremely useful variables as they account for a plethora of factors golfers face daily on a golf course. A golfing handicap achieves these objectives by establishing a variety of factors for each set of tee boxes (distances) and course difficulty. These factors include course ratings, course slope, and course difficulty which are calculated and adjusted to a player's handicap index. Additionally, other factors such as assessing the impact of playing conditions, limiting the maximum shots (score) on a hole, uniformed calculation for updating a handicap index, and reviewing a players handicap index to ensure it continues to reflect a players demonstrated ability (United States Golf Association, 2020) are all key components for a golfer's handicap.

In recent years, the sport of golf has gained interest by athletes and players around the world who try to mimic the swings of the top golf professionals. These golfers'

swings and motions are being analyzed and replicated by anyone who has taken up the game of golf. According to social learning theory, because professional sports have so much attention, and draw so much notoriety, it is expected that young up and coming athletes with try to learn and imitate the behaviors of their professional golf heroes (Larry & Ross, 2000).

Golf instruction has taken elements of social learning theory and applied it to the way children and adults are taught golf. A significant takeaway from the theory is the proposition where instructors build skills for players based upon their previous learning experiences. The skills are correlated with their results as well as ensuring players are learning through observation and imitation of other coaches and players throughout their playing careers (Studler, Johnson, Eberline, & Judge, 2020).

A study by Gastelum et al, (2021) has also expressed a unique correlation to these learned experiences and how they affect not only one's self-efficacy but also their outcome expectancy and what they feel their performance should be. These studies have also contributed to a better understanding regarding outcome expectancy and self-efficacy, further, it has been contended that both of these factors play key roles in adherence to exercise, maintenance and outcomes regarding strength training (Gastelum-Morales, Leininger, Morrissey, Luke, & DeBeliso, 2021) that has played a big part of the golf game in recent year.

Another subfactor of social learning theory, outcome expectancy is believed to play an important role in one's motivation and has been defined as a person's belief that a certain behavior will lead to specific positive or negative consequences in relation to

one's mood or mental state (Gastelum-Morales, Leininger, Morrissey, Luke, & DeBeliso, 2021).

In the sports world individual sports are typically viewed as a much lonelier than team sports simply because you practice alone, you play alone, and the overall results rest on your own performance without teammates to bail you out on a rough day. Golf is arguably the most individual sport of all sports and it is interesting to see what this individualism can do to performance. An interesting dynamic is trying to correlate how motivation affects performance in individual sports. The relevance for the sports world is key as knowing this can increase efficacy for both sportsman and trainer (Teodorescu, Buju, & Catuna, 2017). For the research at hand the dynamic can be further evaluated by questioning, does the skill of your playing partner increase motivation, or decrease motivation which leads to a change of efficacy in one way or another (positive or negative).

Previous studies have indeed concluded that between motivation and sporting performance there is an interdependence relation which concludes that motivation can influence the sporting performance (Teodorescu, Buju, & Catuna, 2017). Understanding what can motivate or how a golfer is truly motivated is a topic that can be subjective, but what is difficult to ignore is how much of a mental game golf truly is, and how much of a strong mentality a player needs to have. The longer a player is out on the golf course the harder it becomes to concentrate on each shot and each detail of the game and because golf is an intermittent sport, it is important that golfers can effectively turn their golf-specific concentration on and off in between shots (Pilgrim, Robertson, & Kremer, 2016), a skill amateurs do not realize they need. As such, how do amateurs build this kind of

concentration level or mental toughness, is it through understanding that these factors exist? No matter what route golfers take to strengthen their overall game it is key that the mental aspects play a vital role as studies have indicated mental skills of imagery, self-talk, relaxation and goal setting can have a positive impact on golfing performance (Finn, 2008).

As we investigate the mental aspect of golf, we continue to see how performance involves around imagery and the theory of self-efficacy. Bandura (1997) proposed that stronger beliefs of self-efficacy should have a positive influence on performance through the mediating effect of imagery (Bandura, 1997, as cited in Beauchamp, Bray, & Albinson, 2002). Pre round imagery can be quickly confounded by a bad pairing or a regression of self-efficacy by seeing someone else's failures. A playing partner achieving very little success on the course, regardless of handicap, seems to be a prelude for bad things to come if one's own self-efficacy is being affected. As Bandura has noted, the relationship between self-efficacy and imagery is bidirectional and although high efficacy promotes more successful performances, images of successful performance also have an impact on one's sense of personal efficacy (Bandura, 1997, as cited in Beauchamp, Bray, & Albinson, 2002) which strengthens the belief that a playing partner can affect performance. In contrast, the importance for a player to have confidence that is unwavering and not disturbed by uncontrollable influence is equally as important as their overall skills.

Professional and successful athletes share a common trait of having an unwavering belief in their own skills and abilities, it is an extremely high self confidence that allows these athletes to reach heights others cannot. This high level of self-

confidence has been to play a critical role in athletes' success while low self-confidence is closely associated with athletic failure (Feltz D. L., 2007). This level of confidence has been used to distinguish the athletes that are successful from those who are not when analyzing both their mental state and performance (Feltz D. L., 2007).

3. Research Model and Hypotheses.

As illustrated in figure 1, this research has six hypotheses with additional sub hypothesis. The performance variables are as follows: the focal golfers handicap, the focal golfer's physical condition, the focal golfer's self-confidence, and the focal golfers personal mental state leading into the round. The research has also adopted two variables which moderate a golfer's performance. Opponent difference in skill level is the first moderator to performance and the second is the golfer's personality traits and how these traits can also moderate their performance. The reason for the moderation is a fluctuation of the focal players self-confidence during rounds.

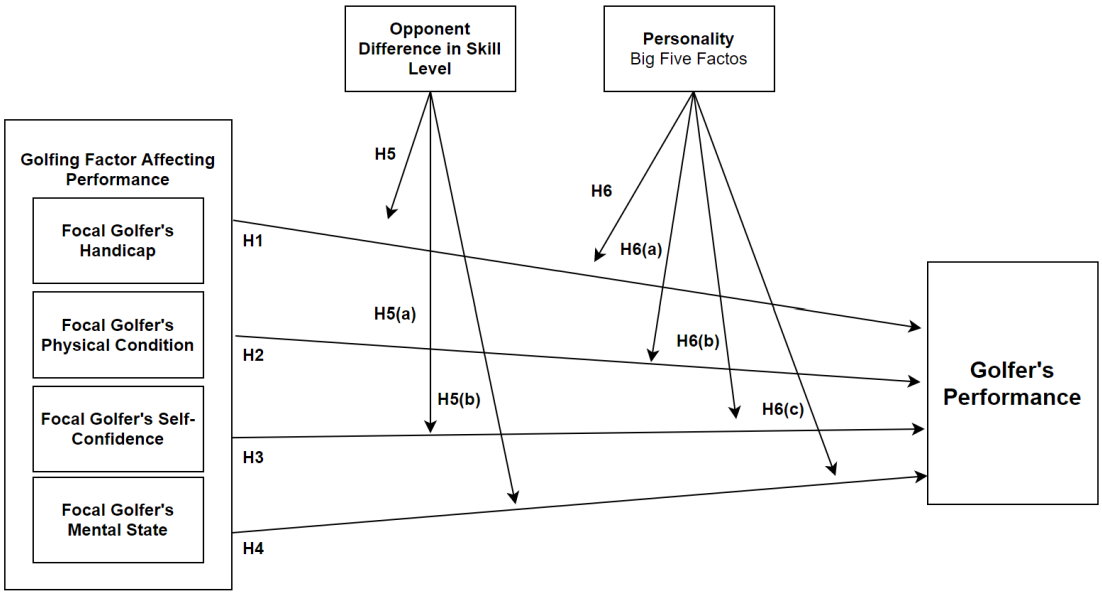

Figure 1. Research Model and Hypotheses.

In sports, self-efficacy has always appeared to be vital to the overall success of an athlete. In a Sirivikaya (2018) study, self-efficacy was used to measure its effect on footballers learning a scissor kick who were unfamiliar with this type of kick beforehand. Questionnaires of self-efficacy were used to collect the data needed and the final results

indicated that self-efficacy indeed played a significant role in learning the scissor kick, therefore Sirivikaya (2018) findings supported the implication that self-efficacy is one of the most important characteristics of a successful athlete (Sivrikaya, 2018).

Table 1. Definitions and Sources of Constructs.

Construct	Definition	Sources
Focal Golfer's Handicap	Golf digest refers to a handicap as a measure of a golfer's potential ability compared to an expert amateur's ability	What is a 10-handicapper? (Yocum, 2008)
Focal Golfer's Physical Condition	Studies have also displayed that the better conditioned the golfer the better performance they will have	A systematic review of strength and conditioning programmes designed to improve fitness characteristics and golfers (Smith, Callister, & Lubas, 2011)
Focal Golfer's Self-Confidence	Self-confidence refers to one's belief that he or she can successfully execute a desired behavior	Self-confidence and sports performance (Feltz, 1988)
Focal Golfer's Mental State	Mental state is a condition in which the qualities of a state are relatively constant even though the state itself may be dynamic	Mental state (Vocabulary.com, 2021)
Opponent Difference in Handicap	Measure of a golfer's potential ability compared to an expert amateur's ability	Self-efficacy: The Exercise of Control (Bandura, 1997)
The Big 5 Personality Factors	Literature treats the Big 5 Personality Factors as being dimensional, people are more or less extraverted, high or low agreeableness, show more or less degrees of neuroticism, etc.	What is personality? Two myths and a definition (Bergner, 2020)
Performance	Golf scoring works by continuing the number of purposeful swings, accounting for penalties, and totaling with handicaps and par	How Golf Scoring Works: A Step-by-step Guide for Newbies (Adams, 2021)

In 2013 a study was conducted that focused on predicative capabilities towards self-efficacy for amateur golfers and compared them as a function of skill levels, findings implied that athletes of different skill level use different information when developing efficacy beliefs (Bruton, Mellalieu, Shearer, Roderjque-Davies, & Ross, 2013). Essentially this study was measuring self-efficacy by different tiers or skill level of golfer, meaning the thought process of success was higher in lower handicap golfers and therefore their efficacy was greater, and their performance was better. Although it leaves the door open for further research, this study is an extremely important tool in understanding the extent that self-efficacy can drive one's success or failures. A contributor to a player's self-efficacy or confidence is the fact that golf, for the part is not a team game and there is no one to help a player out of a tough jam or no team to bail you out.

When it comes to concepts of the Social Learning Theory in correlation with golf, several studies have already been conducted using some of the factors. Bahmani, et al (2017) study identified and used self-efficacy as a measuring tool during an experiment to show if there was an increase in performance and motor learning using visual illusions. Two groups of ten-year-old players practiced putting using perceived smaller holes for one group, and larger holes for the others, each group was to take turns putting (Bahmani, Wulf, Ghadiri, Karimi, & Lewthwaite, 2017). The group that was given the perceived larger holes demonstrated an increase of self-efficacy while the group who was putting with the perceived smaller holes demonstrated more accurate putting, showing their attention and focus increased as well. The findings demonstrated what was previously

seen from adult golfers and were consistent with the notion that better performance expectancies are vital to motor learning (Wulf & Lewthwaite, 2016).

In another study, self-efficacy of male golfers was explored by conducting interviews and gauge responses about pointed self-efficacy questions. The results of the interviews concluded with three differentiated themes standing out above all others (Valíante & Morris, 2013). First enactive mastery was the most powerful source of self-efficacy. Enactive mastery displays evidence of improvements and therefore demonstrate to the player that one can improve, this mastery can use before and after results to demonstrate the improvements.

The second scoring factor was retention, this was displayed because golfers seemed to maintain high self-efficacy by recalling prior successes they have had while not only framing these gains in a positive way, but also seeking verbal persuasion internally as well as externally (Valíante & Morris, 2013). The last of the themes was that one's self-efficacy influenced golfers' thoughts, expectations and their emotional state (Valíante & Morris, 2013). Being that golf is extremely rigorous on ones psyche it is clear why these themes rose to the top. Lastly, Valíante & Morris (2013) study supported that two of Bandura's social learning theory tenets, enactive mastery and retention influenced performance.

A golfer's overall skill is measured by a handicapping system that gives a golfer a score / evaluation number after completing their first ten rounds. Once a golfer earns their handicap rating it is then monitored by their overall performance and what courses they played at. A handicap can change after each round, but a true test of improvement or regression is usually seen in ten round increments. As handicap fluctuates it is this studies

belief that self-efficacy fluctuates and moderates' performance as well. The more successful experiences a golfer has, the better efficacy beliefs they can develop, at the same time if the negative experiences are clouding their judgment their efficacy and performance can plummet as well (Bruton, Mellalieu, Shearer, Roderjque-Davies, & Ross, 2013).

As a round of golf progresses, golfers adjust to circumvent mistakes from consciously occurring and to improve as the round goes on, however assuming the round has gotten off to a rocky start, a golfer's predictive capabilities are usually suffering at this point as well. As Wheeler (2017) indicated, humans can store information at a given point in which they later recall in order to respond to a similar situation, using this "retention" a player can make in round adjustments in order to try and improve (Wheeler, 2017). Retention is particularly important in this premise as sometimes a certain behavior is noticed but not necessarily remembered which prevents the player from imitating said behavior (Bandura, 1977). In this case, the inability to imitate a certain movement or fast twitch muscle response can create a hurdle for achieving a desired scoring position for a golfer and turning a bad round into a decent one can become more difficult.

Turning the tide and improving a round may be a very difficult task but reverting to a more positive time can change the outcome and raise efficacy for the rest of the round. Whether efficacy be moderated or not, one constant in a golfer's performance is their overall skill level that is measured closely by their handicap index. This study proposes: ***H1: The focal golfer's skill level will have a direct impact on their overall golfing performance.***

Typically, “athletes” and other viewer of sports and sporting events may feel as golfers are not real athletes as the game does not appear to be physically taxing. The “simple” and “basic" task of walking the golf course is quite enduring as the walk is approximately four miles long encompassing about three and a half to four hours to fully complete a round. In recent years a vast majority of research in golf has been focused on the importance of a golfer’s physical condition and in order to meet the physical demands of full swing shots along with the physical demands of putting and walking the course it is recommend frequently that golfers undertake golf specific exercise programs (Evans & Tuttle, 2015). Training programs are part of today’s top golfer’s as we are seeing them more fit, bigger stringer and with fast club head speed because of these programs. These training programs now appear to be at the core of golf functions as a mechanically sound golf swing requires the combination of flexibility, muscle strength and balance (Thompson, Cobb, & Blackwell, 2007), all key factors of better performance on the golf course.

The benefits of these physical trainings allow golfers to take a full backswing while also maintaining balance and stability in rotation to allow muscles of the legs to produce powerful muscle contractions associated with the downswing (Thompson, Cobb, & Blackwell, 2007). It is clear golf is not only about mental toughness, there is a lot of physical exertion that takes place as the game is also extremely taxing on the body and a golfer’s physical condition can play a vital role on their performance. This study proposes: ***H2: An increase in the physical condition of the focal golfer will cause an increase on their overall golf performance.***

Self-confidence refers to one's belief that he or she can successfully execute a desired behavior, essentially his or her belief that "I will get the job done" (Feltz, 1988). Self-confidence is at times used in the wrong sense or as an excuse for poor performance. At times, when an athlete performs poorly, they say their confidence was low but when they perform well it was high. Having a pre-round measure of self-confidence is an ideal way to either validate these statements or simply disprove them, but is it prudent? In a sport with so many complexities as golf, increasing a thought or measuring self-confidence could add a mental factor that be the difference between a great round and a poor round for some golfers.

Further, self-confidence can have huge implications on performance, in fact performance accomplishments provide a highly dependable source of information which is the basis of self-efficacy judgments, simply put they are the basis for one's mastery experiences (Feltz, 1988). In due time these mastery experiences consciously and at times subconsciously can turn into mastery expectations. These expectations influence performance and consequently are altered by the cumulative effects of one's efforts (Bandura, 1977). Self-confidence to date is one of the most used and studied variables thought to have a direct correlation to performance, particularly in the world of sports. This study proposes: ***H3: An increase in the player's self-confidence will cause an increase in their performance.***

The mental aspect of golf can at times be as exhaustive as the physical aspect. A lower level playing partner can draw concentration away from one's own game due to a growing frustration of waiting to play or just overall bad performance. Over time studies have shown that there is the relationship between effective concentration and golfing

performance (Finn, 2008). The duration of a typical round of well-played golf is about four hours, however with many delays a round of golf can run if five to five and a half hours which has been proven detrimental to the psyche. Being a sport that is played over an extended period negative golf play can have effects of fatigue on concentration which can be detrimental to decision-making and performance (Gould & Weinberg, 2007).

As previously stated, golf is an extremely mental sport that can be taxing on the mind and cause both physical and mental fatigue. Pre-round jitters and nerves are the norms for both competitive and leisure golfers alike as everyone likes to perform well. Having mental fatigue coupled with these nerves will doom a player round before it kicks off. Studies have suggested just as much, in a study conducted in 2000, University of Gloucestershire's Stephen Mellalieu found that athletes who had a negative pre performance mental state lacked the mental, physical and technical readiness which cause an added pressure on competitive anxiety (Mellalieu, 2000). The study went on to identify task specific imagery what would facilitate and appropriate pre performance mental state that would help the overall performance (Mellalieu, 2000). It is our belief that if this mental state is not adjusted pre round, the effect on performance will be negative. This study proposes: ***H4: A positive increase in the focal golfer's current and personal mental state will increase the player's performance.***

In theory, if a golfer is playing a practice round alone, with nothing to lose, and no additional factors besides the normal course conditions, weather, pace of play etc. one can assume their performance would be at par with their handicap index. Because there are not any further external factors, one's belief on how they should perform should go without a hitch, primarily if their self-efficacy is high and they are in control of their

performance (Bandura, 1997). In golf things can get a bit more difficult for a golfer when other factors are thrown in the mix and now stakes are involved. One of the factors to be analyzed is the effect of a playing partners skill level (handicap) and what it can do to a golfer's self-efficacy when it comes to their skills.

Perception versus reality is a mind game golfers' play before their round even starts. Golfers head to the course with an anticipation (perception) of shooting a great low round and hitting shots like their favorite pro golfer. Once the round starts these perceptions usually fade away for the average weekend golfer and their skills (reality) begin to take over. In some cases, a good (low handicap index) golfer is paired with a bad (high handicap index) golfer and their round does not go as perceived or as their handicap index would indicate it should have gone. Was their efficacy low that day? Was their perception under heavy influence that day?

Was their round of golf much harder because their playing partner struggled so rigorously that day? In golf many factors can contribute to a swing imbalance and due to the theory that performance expectancies are vital to motor learning, adult golfers can have their performance moderated by their playing partners high handicap and poor performance (Wulf & Lewthwaite, 2016). This study proposes: ***H5: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's (skill level and negatively affect their performance. H5a: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's self-confidence and negatively affect their performance. H5b: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's mental state and negatively affect their performance.***

What makes an athlete special? What makes them want to be good and take their skills to the next level? Whether it is basketball, baseball, football, or golf a human and in this case an athlete is shaped by their personality traits. The big five personality traits help us dissect further the inner personality workings that lead to moderate a golfer's performance. Literature treats the big five personality traits (extraversion, agreeableness, consciousness, neurotic, openness) as being dimensional, meaning people are more or less extraverted, they are either high or low on agreeableness, and demonstrate more or less degrees or neuroticism (Bergner, 2020). As indicated by previous research the big five personality traits remain vital predicators of sports performance (Wojciech Waleriańczyk, 2021). These personality traits are broken into five groups that phycologists agree with; openness (to experience), consciousness, extraversion, agreeableness, and neuroticism (Vinney, 2020). Openness in the context of personality is an individual being open-minded, showing openness to experiences, along with their views on intellect, fantasy, values, actions, and aesthetics which are perceived as "open" (John & Srivastava, 1999). Further, openness to experience is explained as the depth, complexity, originality and extent to which a human's experiential and mental life will extend (John & Srivastava, 1999). Golfers in general have never had the perception of being "open", further; professional golfers are perceived as private and reserved, both on and off the course. Consciousness we believe is the personality trait that most associates with golfers. This trait relates to an individual being hardworking, dedicated, organized and leaders who show ambition (Dziak, 2020), all factors that a golfer needs to be at peak performance.

Top of the heap golfers are known for their relentless pursuit of greatness through rigorous hours of practice and fine tuning. As for the next trait, characteristics of extraversion individuals are viewed as excitable, social, talkative, assertive, display positive emotions and have the tendency to seek out stimulation (Power & Pluess, 2015). It is our view that many golfers do not show high level of extraversion as they display actions of keeping to themselves and try not to display to much emotion particularly those of positivity as a round of golf can shift from one swing to the next. Seldomly do golfers show positive emotions mid round and tend to save these emotions at the culmination of a great round. Agreeableness includes features such as trust, altruism, kindness, affection, and other positive social behaviors (Cherry, 2021). It is our belief that opposite to consciousness, agreeableness is the trait that is least associated within golfers as golfers' actions tend to be opposite of agreeableness.

Last of the traits neuroticism we feel has the most negative affect on golfer's that are high in this trait. Neuroticism is associated with sadness, moodiness, anxiety and carries a tone of emotional instability (Power & Pluess, 2015). Successful golfers try to avoid these traits at all costs as they can be detrimental to a round of golf as the range of emotions are naturally going through ebbs and flows. With a better understanding of the five personality traits, we now take a closer look into each of these groups and see their moderating affect (if any) to performance for golfers. This study proposes: ***H6: The focal golfer's personality traits will moderate their golfing skill level and affect their golfing performance. H6a: The focal golfer's personality traits will moderate their physical condition and affect golfing performance. H6b: The focal golfer's personality traits will moderate their self-confidence and affect their golfing performance. H6c: The***

focal golfer's personality traits will moderate their mental state and affect their golfing performance.

4. Methodology.

The unit of analysis for this research will be individuals and their performance. Different factors typically make up a round of golf such as weather, and course condition. Since both players are dealing with these conditions, these external factors will not be measured. This research will use surveys to gauge typical perceptions golfers have and their effects on a golfer's performance. The research design will use a quantitative survey that will be both voluntary and anonymous. Before the survey is officially launched respondents will be asked to read and complete a consent form giving the researcher permission to use data obtained from their responses. Next, the participants will read the instructions on how to fully complete the survey to reduce any errors or mistakes that may stem from complications. The instructions will be embedded on the second page of the survey following the consent form.

Further, we define the target population for this study as South Florida golfers (both male and female) that are between the ages of 25 and 60 and have an indexed handicap level between 5 and 20. Surveys will be conducted using Qualtrics and completed by golfer's no later than 48 hours after their latest rounds. Survey links will be made available at International Links (Melreece) golf course. Each participant will receive an incentive of $10.00 paid in form of clubhouse credit or Amazon E-Gift Card. Participation through the survey at Melreece will be limited to the first 75 golfers to show interest and agree to the consent form for a total of 150 golfers. The survey will take no

more than 25 minutes of the respondent's time to complete, and respondents will not be coerced or influenced throughout the consent process. In order to avoid bias or influence over the respondents, the survey purposely eliminated favorable answers which can steer respondents a certain direction. Additionally, attention questions were placed in key parts of the survey to ensure respondents were engaged from beginning to end.

With such a complex research topic it is important to use a strong survey that measures the exact constructs that will give us the answers to the most pressing questions. Golf is an extremely mental sport, so the sheer fact a golfer understands they are playing with lesser competition can factor negatively on their scores. Having a priori knowledge of their opponent's skill level and reputation as a golfer is essential to this research.

Our research utilizes a Likert survey method to test our research model and the hypotheses. In social sciences, ordinal data frequently collected with the use of Likert scales (Bhandari, 2020). Through the Likert scale responses, the research will implement the use of ordinal data which assists in capturing variables existing in naturally occurring ordered categories. There is a total of six main constructs and five additional sub constructs. Participants will read several statements on how they feel about certain situations that occur on the golf course and answer on a five-point Likert scale with one of the following options, one ("Strongly Agree") to five ("Strongly Disagree") and a mid-point of three ("Neither agree nor disagree"). Respondents can also choose two ("Somewhat agree") or four ("Somewhat disagree"). Golfers will answer anywhere between four and seven specific questions that demonstrate their perceptions about situations occurring on the course.

Table 2. Sources of Measurement Items.

Construct	Type	Source	Items
Focal Golfer's Handicap	Reflective	Developed for this study	6
Focal Golfer's Physical Condition	Reflective	Developed for this study	5
Focal Golfer's Self-Confidence	Reflective	Feltz, 1988	8
Focal Golfer's Mental State	Reflective	Developed for this study	7
Opponent Difference in Handicap	Reflective	Bandura, 1997	6
The Big 5 Personality Factors	Reflective	The Big Five Personality Test	50
Performance	Reflective	Developed for this study	7

Focal Golfer's Handicap. When measuring for how a golfer's handicap or skill level effects their performance, recent playing experience will be considered. The fact that golf handicaps show significant differences after about 10 playing rounds it is imperative that survey questions target a broad enough time span to demonstrate the fluctuation of handicap. This research will construct a measurement survey specifically built for these tests and hypothesis. Golfers will respond to six specific statements that demonstrate their perceptions about how their handicap or skill level effects their performance. The effect of the focal golfer's handicap on performance will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes.

Focal Golfer's Physical Condition. Just like any other sports played, there is no difference with respects that athletes are always aspiring for a competitive advantage. In recent years golfer's have turned to working out and adopting a training program to increase strength, flexibility, stamina, and endurance. An example of a benefit from implementing a training program is golfer's increasing endurance in order to maintain good posture over shots in an 18-hole match, further endurance in the abs and lower back can also increase consistency (Ballantyne, 2019). With this understanding the research

will have golfers respond to five specific statements that demonstrate their perceptions about how a golfer's physical conditioning or how "in shape" someone is effects their golfing performance. Perceptions of the importance of a golfer's physical condition effect on performance will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes.

Self-Confidence. When measuring self-confidence, we will use the principles of the New General Self-Efficacy Scale (Chen, Gully, & Eden, 2001). Golfers will respond to eight specific statements that demonstrate their perceptions about how their self-confidence going into a round of golf effects their performance. The effect of self-confidence will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes.

Focal Golfer's Mental State. When measuring how a golfer's mental state leading into a round and how it can affect performance, we will be using utilizing a measurement survey specifically built for this research. These statements will target and pinpoint areas where luck (good and bad) take place, mood swings (attitudes) occur, and how much focus is kept on each shot throughout a round of golf. We will also specify statements on how each golfer feels affected playing after receiving news that is outside their control and outside the realm of golf. Golfers will respond to seven specific statements that demonstrate their perceptions about how their mental state going into a round effects their performance that round. The effect of mental toughness will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes.

Opponent Difference in Handicap. Golf paring handicap difference is believed to cause a negative performance. This handicap difference will be measured under the construct on vicarious experience. Bandura defines vicarious experience as learning through the environment and through the process of observation, the ability to learn by watching others (Bandura, 1977). In golf this learning process or environmental learning can affect both a great golfer watching a poor golfer commit error after error or, a poor golfer watching a great golfer by not being able to emulate their swing and effects. Golfers will respond to six specific statements that demonstrate their perceptions about how the difference in skill level effects their performance that round. The effect of playing against or with someone with a significant skill difference will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes.

Big 5 Personality Factors. When Exploring performance variables our study feels as if measuring a golfer's personality can be the piece that brings the puzzle together. The fifty-item personality measure, The Big Five Personality Test (BFPT) will be used as the instrument to test the importance of a golfer's personality in moderating their performance. Golfers will score themselves on the five different sub-factors using the BFPT measurement instrument. The results will be used to determine if an individual's personality traits play a significant role in influencing the relationship between golfing performance variables and performance.

Performance- How does a golfers performance get measured?

Golf performance or scoring works by counting the number of purposeful swings, accounting for penalties, and totaling with handicaps and par. In a game of golf, a stroke

is understood to be an intentional swing at the golf ball. Even if the ball doesn't move, if a player swings at it, that counts as a stroke. Simply add the strokes from each hole across the player's row (Adams, 2021) and you will get the total strokes or score for the entire round. When measuring a golfer's perception on how performance is achieved, we will be using utilizing a measurement survey specifically built for this research.

Golfers will respond to seven specific statements that demonstrate their perceptions about how overall round performance is achieved. Although there is only one scoring format and system, the "performance" variable will be used to assess if a golfer feels the handicapping system is a good system to match golfers for competition, and if they feel their performance is truly dependent on this research's independent variables. The dependent variable "performance" will be measured using a five-point Likert scale from one ("Strongly Agree") to five ("Strongly Disagree") with differentiating points in between the two extremes. The following variables will be collected within the survey: age, handicap level and gender.

The researcher is planning at least three different informed pilots and at the culmination of our pilots we will begin the data collection procedures. The informed pilots will be accomplished by asking colleagues, peers of golfers, and DBA cohort members to complete preliminary surveys and to please provide feedback on the survey design, questions, content, and ways of improving the overall survey. The goal of the informed pilots is to ensure that the questions are truly asking what their intentions are as well as adding and removing questions that lack substance.

As far as the researcher knows there are no known risks associated with this study or survey. There is no known or anticipated physical, legal, mental, or economical risk

for any participant. Participants may refuse to answer any question or exit the survey at any point in time if they do experience any discomfort.

5. Data Analysis and Results.

The independent variables of the study included the focal golfer's handicap, physical condition, self-confidence, and mental state. Moderators tested were opponent's difference in skill level and the Big Five personality dimensions of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness. The dependent variable of the study was the golfer's performance. All variables, with the exception of the golfer's performance, were measured on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). Increasing values for the independent variables focal golfer's handicap, physical condition, self-confidence, and mental state correspond to lower levels of the construct. Golfer's performance level was measured with one item which ranged from 1 to 6 where each response representing their score range: 1 "70-75", 2 "76-80", 3 "81-85", 4 "86-90", 5 "91-95", and 6 "96-100". Thus, increasing values correspond to decreased performance, as a lower golf score is between than a higher one. Reliability was assessed by calculating Cronbach's alphas for each measure. A generally accepted rule is that α of 0.6-0.7 indicates an acceptable level of reliability, and 0.8 or greater is a very good level (Serbetar et al., 2016). Nunnally (1978) recommends a minimum level of .7. All measures demonstrated acceptable reliability with Cronbach's alphas ranging from .703 to .881 (Table 2). The dependent variable of the golfer's performance had only one item, thus Cronbach's alpha could not be calculated.

Table 3. Reliability of Study Measures.

Measure	Type of Variable	#Items	Cronbach's Alpha
Focal golfer's handicap	Independent	6	.746
Focal golfer's self-confidence	Independent	6	.791
Focal golfer's physical condition/fitness	Independent	6	.777
Focal golfer's mentality	Independent	7	.751
Focal golfer's Opponent Difference in Skill	Moderator	8	.859
Extraversion	Moderator	10	.759
Agreeability	Moderator	10	.779
Conscientiousness	Moderator	10	.742
Neuroticism	Moderator	10	.881
Openness	Moderator	10	.703
Golfer's performance	Dependent	1	-

5.1. Assumptions Testing

Statistical validity was assessed by verifying the assumptions required for the parametric tests which included multiple regression. These assumptions included linearity, homoscedasticity, independence of residuals, absence of multicollinearity, no outliers, and normality of residuals (Field, 2018). There was linearity and homoscedasticity, as assessed by a plot of standardized residuals against the predicted values. The plot showed a random pattern with no evidence of a curvilinear relationship, thus supporting the linearity assumption (Figure 2).

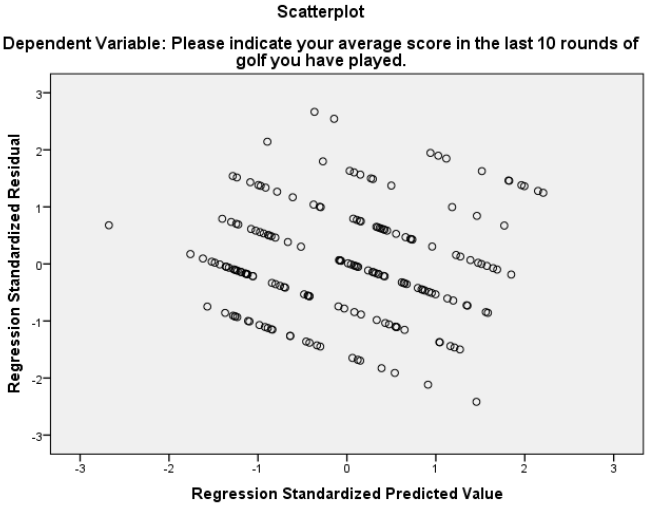

Figure 2. Scatter Plot of Standardized Residuals Against the Predicted Values.

There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.042. Acceptable values fall between 1.5 and 2.5. There was no evidence of multicollinearity, as assessed by variance inflation factors below 10.0.

There were no standardized residuals greater than ±3 standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1, therefore no outliers. The assumption of normality was met, as assessed by visual inspection of a histogram of regression residuals (Figure 3).

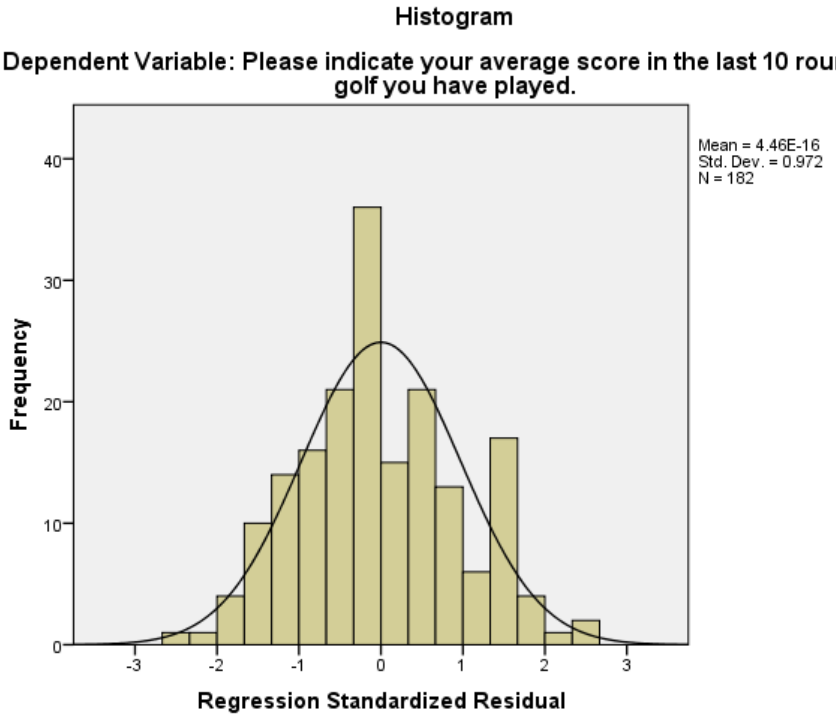

Figure 3. Histogram of Regression Residuals.

Normality was also assessed for each study measure by calculating skewness and kurtosis values. The results suggested the deviation of data from normality was not severe as the value of skewness and kurtosis index were between -2 to +2 and -7 to +7 respectively (Hair et al., 2010; Bryne, 2010). Table 4 depicts this information.

Additionally, there were no standardized scores beyond -3 to +3 that were extreme outliers. Table 5 provides the ranges of standardized scores for each study measure.

Table 4. Skewness and Kurtosis Measures.

	Skewness	Kurtosis
Golfer's performance	.470	-.352
Focal golfer's Opponent Difference in Skill	-.254	-1.002
Focal golfer's self-confidence	.490	-.410
Focal golfer's physical condition/fitness	1.322	1.444
Focal golfer's handicap	.878	.180
Extraversion	.261	-.119
Agreeability	-.128	-.975
Conscientiousness	.163	-.503
Neuroticism	.077	-.869
Openness	-.332	-.167

Table 5. Ranges of Standardized Scores.

	Min	Max
Golfer's performance	-1.44	2.21
Focal golfer's Opponent Difference in Skill	-2.05	1.78
Focal golfer's self-confidence	-1.60	2.88
Focal golfer's physical condition/fitness	-1.15	3.86
Focal golfer's handicap	-1.53	2.77
Extraversion	-2.78	2.39
Agreeability	-2.03	1.65
Conscientiousness	-3.19	2.00
Neuroticism	-2.52	1.78
Openness	-3.22	2.01

5.2. Descriptive Analysis

There were N = 184 participants in the study in which 115 (62.5%) were males and 69 (37.5%) were females (Table 6). Most participants were in the 25-34 age range, 77 (41.8%). This was followed by 35-44, 64 (34.8%); 45-54, 23 (12.5%); and over 54, 19 (10.3%). One (0.5%) person did not provide a response (Table 7). Regarding reported golf handicap, most stated 5-7, 70 (38.0%). This was followed by 10-14, 51 (27.7%); 15-20, 26 (14.1%); 0 – 4, 21 (11.4%); and 16 (8.7%) did not know (Table 8).

Table 6. Gender.

	Frequency	Percent
Male	115	62.5
Female	69	37.5
Total	184	100.0

Table 7. Age.

	Frequency	Percent
25-34	77	41.8
35-44	64	34.8
45-54	23	12.5
Over 54	19	10.3
Prefer not to answer	1	.5
Total	184	100.0

Table 8. Handicap Range.

	Frequency	Percent
0-4	21	11.4
5-9	70	38.0
10-14	51	27.7
15-20	26	14.1
I do not know	16	8.7
Total	184	100.0

Regarding the dependent variable of golfer's performance, the mean was M = 2.98 (SD = 1.37). This mean corresponds to approximately 81-85 strokes. Focal golfer's Opponent Difference in Skill ranged from 1 to 4.63 (M = 2.94, SD = 0.95); Self-confidence ranged from 1 to 3.83 (M = 2.01, SD = 0.63); physical condition ranged from 1 to 4.17 (M = 1.72, SD = 0.63); handicap ranged from 1 to 3.50 (M = 1.89, SD = 0.58); Extraversion personality trait ranged from 1.50 to 5.00 (M = 3.38, SD = 0.68); Agreeability ranged from 1.2.60 to 5.00 (M = 3.92, SD = 0.65); Conscientiousness ranged from 1.70 to 5.00 (M = 3.73, SD = 0.64); Emotional stability ranged from 1.10 to 5.00 (M = 3.38, SD = 0.64); and intellect ranged from 1.90 to 5.00 (M = 3.81, SD = 0.59). Table 7 provides these descriptive statistics.

Table 9. Descriptive Statistics of Study Measures.

	Minimum	Maximum	*M*	*SD*
Golfer's performance	1.00	6.00	2.98	1.37
Focal golfer's Opponent Difference in Skill	1.00	4.63	2.94	.95
Focal golfer's self-confidence	1.00	3.83	2.01	.63
Focal golfer's physical condition/fitness	1.00	4.17	1.72	.63
Focal golfer's handicap	1.00	3.50	1.89	.58
Extraversion	1.50	5.00	3.38	.68
Agreeability	2.60	5.00	3.92	.65
Conscientiousness	1.70	5.00	3.73	.64
Neuroticism	1.10	5.00	3.38	.91
Openness	1.90	5.00	3.81	.59

5.3. Hypothesis Testing

Hypothesis 1. Results of regression were not significant, $F(1, 181) = 0.301$, $p = .584$. Handicap skill level was not a significant predictor of performance ($B = 0.097$, $t = 0.549$, $p = .584$). Thus, this first hypotheses is not supported. Table 10 provides this information.

Table 10. Regression Coefficients for H1*.

	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*	Collinearity Statistics	
	B	*SE*	*β*			Tolerance	VIF
(Constant)	2.796	.347		8.047	.000		
HandiCap	.097	.176	.041	.549	.584	1.000	1.000

* $F(1, 181) = 0.301$, $p = .584$, $R^2 = .002$

Hypothesis 2. Results of regression were not significant, $F(1, 181) = 0.414$, $p = .521$. Physical condition/fitness was not a significant predictor of performance ($B = -.105$, $t = -.643$, $p = .521$). Thus, this second hypotheses is not supported. Table 11 provides this information.

Table 11. Regression Coefficients for H2*.

	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*	Collinearity Statistics	
	B	*SE*	*β*			Tolerance	VIF
(Constant)	3.158	.298		10.605	.000		
Physical condition/fitness	-.105	.163	-.048	-.643	.521	1.000	1.000

* $F(1, 181) = 0.414$, $p = .521$, $R^2 = .002$

Hypothesis 3. Results of regression were significant, $F(1, 181) = 13.131$, $p < .001$. Self-confidence was a significant predictor of performance ($B = 0.573$, $t = 3.624$, $p < .001$). Increased self-confidence corresponds to an increased performance score. Thus, this third hypothesis was supported. Table 12 provides this information.

Table 12. Regression Coefficients for H3*.

	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*	Collinearity Statistics	
	B	*SE*	*β*			Tolerance	VIF
(Constant)	1.832	.331		5.532	.000		
ConfidenceNew	.573	.158	.261	3.624	.000	1.000	1.000

* $F(1, 181) = 13.131$, $p < .001$, $R^2 = .068$

Hypothesis 4. Results of regression were significant, $F(1, 181) = 32.978$, $p < .001$. Mentality was a significant predictor of performance ($B = 0.718$, $t = 5.743$, $p < .001$). Increased mentality corresponds to an increased performance score. Thus, this fourth hypothesis was supported. Table 13 provides this information.

Table 13. Regression Coefficients for H4*.

	Unstandardized Coefficients		Standardized Coefficients	*t*	*p*	Collinearity Statistics	
	B	*SE*	*β*			Tolerance	VIF
(Constant)	1.124	.336		3.345	.001		

Mentality	.718	.125	.394	5.743	.000	1.000	1.000

* $F(1, 181) = 32.978$, $p < .001$, $R^2 = .155$

Hypothesis 5. *H5: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's skill level and negatively affect their performance.* Andrew Hayes's PROCESS macro was used in order to determine any moderating effects of handicap between the focal golfer and their opponent. This involved creating interaction terms between the possible moderator and golfer's skill and determining if the resulting change in R2 was significant. The resulting change in R2 was not found to be significant, $F_{Change}(1, 178) = .9132$, $p = .3406$. Thus, H5 is not supported.

H5a: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's self-confidence and negatively affect their performance. Andrew Hayes's PROCESS macro was used in order to determine any moderating effects of handicap between the focal golfer and their opponent. This involved creating interaction terms between the possible moderator and self-confidence and determining if the resulting change in R2 was significant. The resulting change in R2 was not found to be significant, $F_{Change}(1, 178) = 0.4279$, $p = .514$. Thus, H5a is not supported.

H5b: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's mental state and negatively affect their performance. Andrew Hayes's PROCESS macro was used in order to determine any moderating effects of handicap between the focal golfer and their opponent. This involved creating interaction terms between the possible moderator and mental state and determining if the resulting change in R2 was significant. The resulting change in R2 was not found to be significant, $F_{Change}(1, 178) = 0.2462$, $p = .620$. Thus, H5b is not supported.

Hypothesis 6. *H6: The focal golfer's personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) will moderate their golfing skill level and affect their golfing performance.* There was a significant moderation effect of agreeableness, $F(1, 178) = 14.3028$, $p = .0002$. Regarding extraversion, there was no significant moderation effect, $F_{Change}(1, 178) = 1.7252$, $p = .191$. There were no significant moderation effects of Conscientiousness, $F(1, 178) = 0.0007$, $p = .979$; Neuroticism, $F(1, 178) = 1.7573$, $p = .1867$; and Openness, $F(1, 178) = 0.1494$, $p = .699$. H6 was partially supported.

H6a: The focal golfer's personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) will moderate their physical condition and affect golfing performance. There were no significant moderating effects found for extraversion, $F(1, 178) = 2.810$, $p = .0950$; Agreeableness $F(1, 178) = 0.4565$, $p = .5001$; Conscientiousness $F(1,178) = 0.4897$, $p = .485$; Neuroticism, $F(1, 178) = 0.0066$, $p = .9353$; and Openness, $F(1, 178) = 1.1711$, $p = .2806$. H6a was not supported.

H6b: The focal golfer's personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) will moderate their self-confidence and affect their golfing performance. There was a significant moderation effect of Neuroticism $F(1, 178) = 4.4446$, $p = .0364$. There was no moderation effects for extraversion, $F(1, 178) = 0.4081$, $p = .524$; Agreeableness, $F(1, 178) = 2.9176$, $p = .0894$; Conscientiousness, $F(1, 178) = 1.4121$, $p = .2363$' and Openness, $F(1, 178) = 0.1259$, $p = .7231$. H6b was partially supported.

H6c: The focal golfer's personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) will moderate their mental state and

affect their golfing performance. There were no significant moderation effects of Extraversion, $F(1, 178) = 0.3056$, $p = .581$; Agreeableness, $F(1, 178)$ 0.1531, $p = 696$; Conscientiousness, $F(1, 178) = 0.4490$, $p = .504$; Neuroticism $F(1, 178) = 0.0351$, $p = .852$, and Openness, $F(1, 178) = 0.5422$, $p = .4625$. H6c is not supported.

The results are summarized in Table 12. The significant findings of the study were that an increase in the player's self-confidence will cause an increase in their performance (H3 supported) and a positive increase in the focal golfer's current and personal mental state will increase the player's performance (H4 supported). Additionally, H6 was partially supported concerning a significant moderation effect of agreeableness on the relationship between golfing skills and performance. Lastly, H6b was partially supported concerning a significant moderation effect of Emotional stability on the relationship between self-confidence and affect golfing performance.

Table 14. Summary of Hypotheses Testing.

Hypothesis	Support/not supported
H1- The focal golfer's skill level will have a direct impact on their overall golfing performance	Not supported
H2- An increase in the physical condition of the focal golfer will cause an increase in their overall golf performance.	Not supported
H3- An increase in the player's self-confidence will cause an increase in their performance.	Supported
H4- A positive increase in the focal golfer's current and personal mental state will increase the player's performance.	Supported
H5- The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's skill level and negatively affect their performance.	Not supported
H5a- The difference in handicap between the focal golfer and their opponent will moderate the focal	Not supported

Hypothesis	Support/not supported
golfer's self-confidence and negatively affect their performance.	
H5b- The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's mental state and negatively affect their performance.	Not supported
H6- The focal golfer's personality traits will moderate their golfing skill level and affect their golfing performance.	Partially supported. There was a significant moderation effect of agreeableness
H6a- The focal golfer's personality traits will moderate their physical condition and affect golfing performance.	Not supported
H6b- The focal golfer's personality traits will moderate their self-confidence and affect their golfing performance.	Partially supported. There was a significant moderation effect on Emotional stability
H6c- The focal golfer's personality traits will moderate their mental state and affect their golfing performance.	Not supported.

6. Discussion and Implications.

After data analysis, the findings revealed that an increase in the player's self-confidence would cause an increase in their performance (H3 supported), and a positive increase in the focal golfer's current and personal mental state will increase the player's performance (H4 supported). Additionally, H6 was partially supported concerning a significant moderation effect of agreeableness on the relationship between golfing skills and performance. Lastly, H6b was partially supported concerning a significant moderation effect of Emotional stability on the relationship between self-confidence and affected golfing performance. Chapter five will present the implications of the results in a detailed discussion based on the hypotheses tested. In addition, this will also present

recommendations for practice, the recommendation for future research, and the conclusion of the study as presented below.

6.1. Implications

The discussions and interpretations of the study results are presented in this section. A detailed analysis of how the study findings relate and contribute to current literature within the theoretical lens adopted for this study will be discussed in this section. The discussion and interpretations of the study results were presented based on the research question and hypotheses as discussed below.

Hypothesis 1: The focal golfer's skill level will have a direct impact on their overall golfing performance. The findings revealed that the regression model was not significant. The golfer's skill levels were not a significant predictor of the overall golfing performance. Handicap skill level was not a significant predictor of performance Thus, this first hypothesis was not supported. The results imply that the level of skill among golfers does not impact their overall golfing performance. The implication is that golfer's skill level does not affect their competitiveness and performance in the field.

These findings are inconsistent with the current empirical literature that handicap skill level directly impacts or affects the golfer's field performance. For instance, Yocum (2008) contradicted the above findings by reporting that the better the golfer, the lower their handicap is. Conversely, the worse a golfer is, the higher their handicap would be (Yocum, 2008). According to Evans and Tuttle (2015), the vast majority of research in golf has been focused on the importance of a golfer's physical condition to meet the physical demands of full swing shots along with the physical needs of putting and

walking the course it frequently recommended that golfers undertake golf-specific exercise programs (Evans & Tuttle, 2015).

Further, training programs are part of today's top golfers as they are seen as a more fit, more giant stringer and with fast clubhead speed because of these programs. These training programs now appear to be at the core of golf functions as a mechanically sound golf swing requires flexibility, muscle strength, and balance, which are key factors of better performance on the golf course (Thompson, Cobb, & Blackwell, 2007). The benefits of these physical trainings allow golfers to take a full backswing while also maintaining balance and stability in rotation to allow muscles of the legs to produce powerful muscle contractions associated with the downswing (Thompson, Cobb, & Blackwell, 2007). It is precise that golf is not only about mental toughness; much physical exertion takes place as the game is also extremely taxing on the body. A golfer's physical condition can play a vital role in their performance. These literature findings contradict current findings that skill level does not affect a golfer's performance.

The study results contribute to current literature in several ways. The present study findings have reinforced the existing literature by revealing that the level of skill among golfers does not impact their overall golfing performance, implying that golfer's skill level does not affect their competitiveness and performance in the field.

Hypothesis 2: An increase in the physical condition of the focal golfer will cause an increase in their overall golf performance. Under this theme, the regression model was not significant. The results showed that physical condition/fitness was not a significant predictor of performance among golfers. Hence, the second hypothesis was not supported, indicating that the level of performance was not associated with physical

fitness or physical condition. The findings imply that physical fitness does not cause an increase in overall performance among golfers. These results are not consistent with the current literature regarding the relationship between physical condition and an increase in the overall performance of golfers. For instance, Blackwell (2007), Cobb (2007), and Thompson (2007) stated that training programs are part of today's top golfers as they are seen as more fit, more giant stringers, and with fast clubhead speed because of these programs.

These training programs now appear to be at the core of golf functions as a mechanically sound golf swing requires flexibility, muscle strength, and balance, which are key factors of better performance on the golf course (Thompson et al., 2007). Physical trainings allow golfers to take a full backswing while also maintaining balance and stability in rotation to allow muscles of the legs to produce powerful muscle contractions associated with the downswing (Thompson et al., 2007). It is precise that golf is not only about mental toughness; much physical exertion takes place as the game is also extremely taxing on the body. A golfer's physical condition can play a vital role in their performance ((Thompson et al., 2007). These literature results are inconsistent with current study findings highlighting that physical condition/fitness is significantly associated with the golfer's performance.

The research results contribute to the current literature in several ways. The present study's findings have reinforced the existing literature by revealing that golfers' personal and current mental state directly affects their performance on the field. The interpretation is that physical fitness does not cause an increase overall performance among golfers, implying that golf players' self-confidence improves their performance

because golfers with a high level of self-confidence are fitter and mentally prepared to handle their opponents.

Hypothesis 3: An increase in the player's self-confidence will cause an increase in their performance. After the analysis, the regression findings were significant, revealing that self-confidence was a significant predictor of performance. This implies that an increase in self-confidence corresponds to an increase in performance score. In this regard, the third hypothesis was supported by these results. The interpretation is that golfers with increased self-confidence lead a corresponding increase in overall performance. The findings imply that golf players' self-confidence improves their performance because golfers with a high level of self-confidence are fitter and mentally prepared to handle their opponents.

The current findings concur with the previous empirical literature that self-confidence increases the performance of golfers in the field. For example, Feltz (1988) reported that in a sport with so many complexities as golf, increasing a thought or measuring self-confidence could add a mental factor that is the difference between a great round and a poor round for some golfers (Feltz, 1988). Further, self-confidence can have huge implications on performance; performance accomplishments provide a highly dependable source of information which is the basis of self-efficacy judgments; simply put, they are the basis for one's mastery experiences (Feltz, 1988). In due time these mastery experiences consciously and subconsciously can turn into mastery expectations. These expectations influence performance and consequently are altered by the cumulative effects of one's efforts (Bandura, 1977). Self-confidence, to date, is one of the most used

and studied variables thought to have a direct correlation to performance, particularly in the world of sports (Bandura, 1977).

The research findings contribute to current literature in multiple ways. The present study's findings have reinforced the existing literature by revealing that golfers' personal and current mental state directly affects their performance on the field. The interpretation is that golfers with increased self-confidence lead a corresponding increase in the overall performance, implying that golf players' self-confidence improves their performance because golfers with a high level of self-confidence are fitter and mentally prepared to handle their opponents.

Hypothesis 4: Positive increase in the focal golfer's current and personal mental state will increase the player's performance. The findings from the regression analysis were significant. The results revealed that mentality was a substantial predictor of golf players such that increased mentality corresponds to an improved performance score. Hence, the fourth hypothesis was supported by these results. The results imply that golfers' personal and current mental state directly affects their performance on the field. The interpretation is that a positive increase in the mental state of golfers significantly increased their overall performance.

Current study findings are consistent with the previous literature regarding the association between positive mental state and golf players' performance. In particular, Finn, 2008) supported these findings by stating that the mental aspect of golf can at times be as exhaustive as the physical aspect. A lower-level playing partner can draw concentration away from one's own game due to a growing frustration of waiting to play or overall bad performance. Consequently, over time studies have shown a relationship

between effective concentration and golfing performance (Finn, 2008). The duration of a typical round of well-played golf is about four hours; however, with many delays, a round of golf can run if five to five and a half hours which has been proven detrimental to the psyche (Gould & Weinberg, 2007). According to Gould and Weinberg (2007), being a sport played over an extended period of negative golf play can have fatigue concentration which can be detrimental to decision-making and performance (Gould & Weinberg, 2007).

Having mental fatigue coupled with these nerves will doom a player round before it kicks off. In a study conducted in 2000, University of Gloucestershire's Stephen Mellalieu (2000) reported that athletes who had a negative pre-performance mental state lacked the mental, physical and technical readiness, which caused an added pressure on competitive anxiety (Mellalieu, 2000). The study identified task-specific imagery that would facilitate an appropriate pre-performance mental state that would help the overall performance (Mellalieu, 2000). Thus, these literature results agree with the current study findings that a positive mental state among golf players leads to an increase in their performance. Therefore, it is believed that if this mental state is not adjusted pre-round, the effect on performance may be negative (Mellalieu, 2000).

The study results contribute to current literature in several ways. The present study findings have reinforced the current literature by establishing that the results imply that golfers' personal and current mental state directly affects their performance on the field. The interpretation is that a positive increase in the mental state of golfers significantly increased their overall performance.

Hypothesis 5: The difference in handicap between the focal golfer and their opponent will moderate the focal golfer's skill level and negatively affect their performance. Under this hypothesis, Andrew Hayes's PROCESS macro was used to determine any moderating effects of handicap between the focal golfer and their opponent. The findings showed that the resulting change was not significant and that the findings did not support H5. In regards to H5a, which stated that the difference in handicap between the focal golfer and their opponent would moderate the focal golfer's self-confidence and negatively affect their performance, the resulting change was not significant. Thus, H5a was not supported by the results. Concerning the hypothesis that the difference in handicap between the focal golfer and their opponent will moderate the focal golfer's mental state and negatively affect their performance, the resulting change was not significant. Hence, H5b was not supported by the findings.

The findings are not consistent with the previous literature. For example, Yocum (2008) contradicted the above results by reporting that the better the golfer, the lower their handicap is. Conversely, the worse a golfer is, the higher their handicap would be (Yocum, 2008). Comparable results were reported by Feltz (1988), who stated that in a sport with so many complexities as golf, increasing a thought or measuring self-confidence could add a mental factor that is the difference between a great round and a poor round for some golfers (Feltz, 1988). Consequently, over time studies have shown a relationship between effective concentration and golfing performance (Finn, 2008). Mellalieu (2000) also reported that athletes who had a negative pre-performance mental state lacked mental, physical, and technical readiness, which causes an added pressure on

competitive anxiety (Mellalieu, 2000). These findings are not consistent with current findings because their respective findings did not support all of the hypotheses.

The study findings contribute to current literature in various ways. The current study results have reinforced the existing literature by establishing that the difference in handicap between the focal golfer and their opponent can moderate their skill level and negatively affect their performance.

Hypothesis 6: The focal golfer's personality traits (Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness) will moderate their golfing skill level and affect their golfing performance. After data analysis, H6 was partially supported concerning a significant moderation effect of agreeableness on the relationship between golfing skills and performance. There was a significant moderation effect of friendliness. Lastly, H6b was partially supported concerning a significant moderation effect of Emotional stability on the relationship between self-confidence and affected golfing performance because there was a significant moderation effect on self-confidence. Regarding H6b, there was a significant moderation effect on Emotional stability. These findings imply that self-confidence, emotional stability, and agreeableness significantly affected golfers' performance. The results suggest that golfing arrangements depended on golf players' self-confidence, agreeableness, and emotional stability.

These findings are consistent with the current literature. For instance, Bergner (2020) reported that literature treats the big five personality traits (extraversion, agreeableness, consciousness, neurotic, openness) as being dimensional, meaning people are more or less extraverted, they are either high or low on agreeableness and

demonstrate more or fewer degrees of neuroticism (Bergner, 2020). These personality traits are broken into five groups that phycologists agree with; openness (to experience), consciousness, extraversion, agreeableness, and neuroticism (Vinney, 2020). Golfers, in general, have never had the perception of being “open”; professional golfers are perceived as private and reserved, both on and off the course.

Consciousness was believed to be the personality trait most associated with golfers. This trait relates to an individual being hardworking, dedicated, organized, and a leader who shows ambition (Dziak, 2020), all factors a golfer needs to be at peak performance. However, it was believed that opposite, unlike consciousness, agreeableness is the most minor associated trait within golfers as golfers’ actions tend to be the opposite of agreeableness (Power & Pluess, 2015). Successful golfers try to avoid these traits at all costs as they can be detrimental to a round of golf as the range of emotions naturally goes through ebbs and flows. These findings concur with the current study findings that self-confidence, emotional stability, and agreeableness significantly affected golfers’ performance levels.

The study results contribute to current literature in several ways. The present study findings have reinforced the existing literature by establishing that self-confidence, emotional stability, and agreeableness significantly affect golfers' performance. The results implied that golfing performance depended on the self-confidence, agreeableness, and emotional stability among golf players. The implication is that high golfing performance depends on the self-confidence, agreeableness, and emotional stability.

6.2. Recommendations for Practice

This study has several practice recommendations. First, the results of this study are recommended to be used by golfers to understand the significance of physical conditions to their performance. Physical trainings allow golfers to take a full backswing while also maintaining balance and stability in rotation to allow muscles of the legs to produce powerful muscle contractions associated with the downswing (Thompson, Cobb, & Blackwell, 2007). In this regard, these findings may help golf players to get prepare for their golf tournament because they would have an understanding of the requirements to achieve high-level performance among them.

Another recommendation for practice was that these findings are recommended to be used by golfing organizations to implement golf policies to achieve high performance and to understand if playing with someone of a significantly different skill level would indeed affect performance, as well as help understand what the ideal pairing for indexed/handicap golfers is using a range between a five handicap and twenty a handicap. On the other hand, the research can also uncover that these factors have no actual impact on a player's performance and therefore help a player reduce this mental blockage/stigma a week (Kim et al., 2010). Therefore, along with fitness, perceptions about equipment have come a long way, primarily when dealing with club fittings (Smith et al., 2011).

In order to gauge the effects of the golf fitting, players unknowingly used either a properly fitted club, a purposely poorly fitted club, or the same standard club they had used previously, with results still showing maximum outputs when golfers used properly fitted equipment (Bertram, Guadagnoli, & Hayes, 2007). The recommendation for practice was that these results are essential to golf players in understanding the

importance of properly fitted equipment. The golf clubs may also find these findings useful in implementing golf tournament policies to assist players in maintaining their fitness ahead of any golf match.

6.3. Recommendations for Future Research

This study had several recommendations for future research. First, the researcher recommended that future studies be conducted using diverse and large sample sizes to generalize the findings. The study was conducted using 184 participants, which may not provide a representative result for the target population, thus hindering the transferability and generalizability of study findings.

Another recommendation for future research was that further studies should be conducted using different geographical settings to expand on this study. This study was conducted in the South Florida golfers club and may not permit transferability of results to other settings to represent other than the South Florida Golfers. More research should be conducted to extend these findings to understand how mental strength affects golf players' performance both negatively and positively. Being a sport played over an extended period, negative golf play can have fatigue concentration, detrimental to decision-making and performance (Gould & Weinberg, 2007).

Another recommendation for future research was that the survey method might not provide unbiased data filled by participants who may not be truthful in their responses. In this regard, future research should adopt mixed methods to capture all relevant data, including interviews and surveys, to get all relevant information from participants that may not be explained or described through survey questionnaires.

7. Conclusion.

Golf is a sports activity that involves both skill and mental strength, where the two can be equally important to perform at a top-level. In Golf, players of all skill levels seek competitive advantages or factors contributing to better performance. The problem addressed in this study was discovering any truth to the belief that one plays “up” or “down” to the level of their competition or, in this case, their playing partner. Whether this was a built-in mental excuse created by years of hearing this same cliché used by others was their actual truth to this phenomenon. The purpose of this study was to investigate the relationships between golfing factors of focal golfer's handicap, physical condition, self-confidence, mental state, and golfer's performance. In addition, uncontrollable factors such as weather, course conditions, luck, and other variables make golf a sport where perfection is impossible and expert level (sub five handicap) tough to achieve.

The main objective of this research was to give players the understanding and, in some cases, the control over a factor of their round (playing partner) that, in most cases, they could control if they knew a moderating performance factor existed. The sample size for the study was 184 golfers featuring both women and men. The data sets for this research were surveys from weekend golfers that range in skill/handicap levels from five to eight, which identify the highly skilled focal golfer. The regression, T-Test, ANOVA, and Exploratory Factor Analysis were used in this study

After data analysis, the findings revealed that an increase in the player’s self-confidence would cause an increase in their performance (H3 supported), and a positive increase in the focal golfer’s current and personal mental state will increase the player’s

performance (H4 supported). Additionally, H6 was partially supported concerning a significant moderation effect of agreeableness on the relationship between golfing skills and performance. Lastly, H6b was partially supported concerning a significant moderation effect of Emotional stability on the relationship between self-confidence and affected golfing performance.

The overall results in the study supported the theoretical framework adopted in this study in which Social Learning Theory (Bandura, 1997) was used. Self-Efficacy was one sub-factor used most and used to shape the research. Strong self-efficacy beliefs related to the performance of a particular task dictate how people feel and think and how they behave. These strong beliefs have also been linked as strong predictors of performance and success (Lardon, 2008; Nicholls et al., 2010; Schunk, 1995; Weinberg & Gould, 2018). In sports, players' beliefs in their athletic abilities are requisites for their success (Nicholls, Brandrup-Wognsen, Mike, & Barter, 2010). It is essentially needed to accomplish peak performance.

The study further demonstrated that self-efficacy belief was the most reliable and accurate predictor of performance success compared to other variables (Feltz & Lirgg, 2001). Social Learning Theory provides a framework for this study as it went beyond one or two sub-factors. Previous literature provided a breadth of other essential learning tools. Further, there are subfactors of Bandura's social learning theory, such as vicarious experience that we feel directly correlates to a golfer's round of golf, and in turn, their performance. In this regard, this study investigated variables golfers attribute to their performance, the research question, the main problems as indicated by the current study findings and the literature results.

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