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# How the Best Get Better: An Analysis of Self-monitoring Strategies Used by Collegiate Tennis Coaches

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HOW THE BEST GET BETTER: AN ANALYSIS OF SELF-MONITORING
STRATEGIES USED BY COLLEGIATE TENNIS COACHES

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ABSTRACT

This research sought to better understand the self-monitoring strategies used by collegiate tennis coaches. The research replicated Schempp, Webster, McCullick, Bush, and Mason's (2007) study of expert golf instructors' self-monitoring strategies. Tennis coaches completed an online survey identifying strategies to maintain strengths and improve weaknesses as coaches. Data was analyzed a priori using the themes golf instructors identified while looking for emergent themes from the tennis coaches' responses. Data analysis results demonstrated that the coaches recognized goals and actions in their responses. In goals, the themes replicated from Schempp's et al. (2007) study included (1) personal lifestyle, (2) learning, and (3) teaching perspective. The new emergent themes in the category of goals included (1) communication to develop relationships and (2) accountability among staff. For actions, the themes replicated from Schempp et al.'s (2007) study included (1) seeking help from others, (2) adapting teaching practice, (3) reading, and (4) using technology. The new emergent theme in the category of actions was sticking to the coaching philosophy. These findings encourage beginner collegiate tennis coaches to use self-monitoring strategies provided by more experienced coaches as a self-mechanism for identifying and retaining strengths as well as improving weaknesses in their teaching methods.

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CHAPTER 1

INTRODUCTION

Little research has examined how tennis coaches improve teaching methods and identify weaknesses from a coaching standpoint. How do the best coaches improve themselves? How do coaches discover new ways to improve performance? Ericsson and Charness (1994) found that expert coaches not only provide greater understanding and knowledge of the game, but also demonstrate greater performance in their field of expertise. In several sports, coaches monitor training programs personalized to the "needs of individual ranging from beginners to experts" (Ericsson & Charness, 1994, p. 738). Adapting practices to individual needs is a form of self-monitoring strategy commonly used by expert golf instructors and collegiate tennis coaches. The current research focused on analyzing the self-monitoring strategies mentioned by collegiate tennis coaches to retain their strengths and improve their weaknesses.

Ericsson, Krampe, and Tesh-Römer's (1993) study on deliberate practice mentioned that the main difference between expert and novice individuals is the amount of time spent in deliberate practice. The characteristics of deliberate practice include (1) developing goals to increase an individual's motivation to practice, (2) becoming involved in structured sessions to work on specific tasks, (3) practically lacking in external rewards, and (4) self-monitoring performance to improve weaknesses (Ericsson, Krampe, and Tesh-Römer's, 1993). An extensive analytic process, especially toward monitoring their own performance, and reasoning capabilities are forms of self-

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monitoring among expert instructors (Ericsson et al., 1993). These findings concurred

with expert golf instructors' use of self-monitoring to evaluate their coaching

performances to identify and improve weaknesses (Schempp, Webster,

McCullick, Bush, & Mason, 2007).

Self-monitoring focuses on the way people monitor their presentations of self on a

construct referring to individual differences to manage their behaviors and emotions

(Schempp et al., 2007). Competent and novice coaches use different methods to assess

students, particularly in terms of solving students' problems in learning new concepts and

putting it into practice (Schempp, Tan, Manross, & Fincher, 1998). Novice coaches are

often characterized by the perception of being "all knowing" regarding their sport as they

often over-exert the effort to prove themselves. More experienced coaches, however, are

constantly learning how to retain their strengths and improve weaknesses. Indeed,

Schempp et al. (1998) found that skilled instructors believed they had to learn more about

teaching while novice teachers believed they knew everything they needed to teach. This

effort to identify and improve strengths and weaknesses is a form of self-monitoring.

Why is self-monitoring important among expert coaches? According to De Marco

and McCullick (1997), expert coaches have extensive self-monitoring skills and apply

them in their coaching methods. Self-monitoring skills refers to the methods in which

coaches individually monitor their own skills and behaviors to become more successful

coaches in their field of expertise. Schempp, Tan, and McCullick (2002) mentioned that

coaches and athletes need to understand what is required to be successful at their sports.

One of the many aspects that coaches and athletes need to become successful in sports is

the practice of incorporating self-monitoring strategies into their behaviors and teaching methods (Schempp et al., 2007).

Keeney, Hasson, and McKenna (2006), who conducted a study on nursing expertise, stated that "there are no universally agreed criteria for the selection of experts" (p. 207). Coaches spend countless hours preparing different teaching methods regarding sports participation and practice. Many coaches continue their education beyond initial training by attending courses specific to sports instruction. An expert instructor is considered to have a vast store of knowledge and willing to gain as much knowledge as possible from either educational institutions or the professional field (Schempp et al., 2007). Unlike novice instructors, expert instructors can acquire a variety of knowledge and instructional skills in several professional sports areas (Schempp et al., 2007). Nonetheless, a better understanding of expertise and self-monitoring is necessary for different sports, and researchers can examine how such understanding may be beneficial to novice coaches and teachers to improve their performance.

A broad range of studies have examined the use of self-monitoring in teacher development in various academic institutions. Research indicates that teachers and students both benefit from self-monitoring (Allinder, Bolling, Oats, & Gagnon, 2000). Although previous research has examined self-monitoring with expert golf instructors, more consideration should be given to different sports. The benefits of providing a variety of self-monitoring strategies from different sports will help encourage beginner coaches to choose self-monitoring strategies for a specific sport. Therefore, this research aimed to introduce some of the most common characteristics of expertise in sports and

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determine how self-monitoring is linked to expert performance. This research replicates Schempp et al.'s (2007) study on analyzing self-monitoring strategies used by expert golf instructors, but changed the participants to collegiate tennis coaches; thus, examining the self-monitoring strategies tennis coaches use to improve their strengths and weaknesses and comparing their responses to the expert golf instructors reported in Schempp et al. (2007). Both similar and new themes emerged from the coaches' responses, thereby opening the door for further research on the similarities and differences of collegiate tennis coaches versus expert golf instructors' self-monitoring strategies.

**Collegiate Coaching**

Tennis is an individual sport when playing singles. However, in college tennis, the circumstances and the team environment make tennis a team rather than individual sport. Coaches must develop and treat student athletes in more of a team environment rather than individually working with each of them. This can change the dynamics of practices and coaching style from collegiate tennis coaches compared to their colleagues that work with athletes individually. The coaches may adapt practices according to the group's weaknesses and, consequently, have different practices and sessions compared to only one person with a coach.

**Collegiate coaching versus elite level private coaching.** In intercollegiate athletics, coaches need to consider several factors when coaching student athletes. Coaches usually have a bigger team behind them, with the entire team contributing to the athletes' development. Assistant coaches, nutritionists, athletic trainers, administrators,

and athletic directors are all part of the experience of working with student athletes. College coaches must lead student athletes from different backgrounds who usually need some kind of adaptation for them to feel more comfortable on the tennis court. Therefore, the professional relationship between coaches and student athletes needs to be strong for coaches to guide them in the right direction. On the other hand, elite private coaching, such as the expert golf instructors in Schempp's et al. (2007) study, work with individuals during private lessons; their goals differ with each athlete, which can affect how they run their private lessons. In private coaching, the coach must meet individual needs for each athlete and adapt the situation according to their goals. Baker, Yardley, and Cote (2003) mentioned that individual and team athletes "differ in the behaviors they prefer from their coaches" (p. 228). This means athletes respond differently to coaches' practices and behaviors, which affects how they respond personally and athletically. This study replicated Schempp et al.'s study, changing the population to tennis coaches. Thus, the coaches could provide a variation of responses as the population in this case is considered a team sport.

**Statement of Purpose**

The purpose of this study was to analyze the self-monitoring strategies used by collegiate tennis coaches. The following research questions guided this study:

(1) Which self-monitoring strategies are used by the college tennis coaches to improve or maintain their coaching strengths?

(2) Which self-monitoring strategies are used by the college tennis coaches to improve their coaching weaknesses?

(3) What are the differences between the self-monitoring strategies used by expert golf instructors and collegiate tennis coaches?

**Outline of Chapters**

The thesis is presented in five chapters. Chapter 1 introduced common characteristics of expert coaches, existing studies on self-monitoring, the difference between novice and expert instructors, the purpose of the study, and the research questions. Chapter 2 reviews the literature relevant to self-monitoring, including the importance of self-monitoring in coaches and teachers and self-monitoring strategies. Chapter 3 presents the methodology used in this study, including a description of participants, data collection procedures, the survey instrument, steps for data analysis, and the trustworthiness and credibility of the variables. Chapter 4 presents the results of the study, including the description of the participants, an overview of the research process, and Schempp et al.'s (2007) themes along with the emergent themes from the data. Chapter 5 discusses future research, the limitations of the current study, implications for coaches, and a conclusion of the research.

CHAPTER 2

LITERATURE REVIEW

This chapter includes an overview of past research related to (1) self-monitoring, (2) the importance of self-monitoring, and (3) self-monitoring strategies.

**Self-Monitoring**

Self-monitoring can be defined in several ways.  Zimmerman (2002), describes self-monitoring as "observing, tracking, and often recording one's performance and outcomes" (p. 89). For example, in tennis, experienced coaches used self-monitoring as a self-mechanism strategy to revise and assess their own teaching methods and practices to improve strengths and identify weaknesses. Self-monitoring goes beyond focusing on the negative aspect from the coaches' performance because it also highlights the positive aspects in a constructive way.

Webster and Schempp (2008) concluded that self-monitoring is a common practice used by experts in all subjects and fields. It is not only limited to coaches and athletes, but also to more experienced school teachers. According to Schempp et al. (1998), "experienced teachers believed they had a great deal to learn about teaching, while novice teachers believed they knew everything they needed to know about teaching" (p. 99); in addition to having more extensive knowledge, experts also "develop superior self-monitoring and self-regulating skills" (p. 10). Therefore, more experienced teachers are eager to learn more, even if they are experts in their field, which is one reason they become better teachers and develop superior self-monitoring skills to improve their coaching performance on the field.

Hager (2012) wanted to improve a teacher's feedback supervision over all her/his employees. She used self-monitoring as a strategy to provide additional feedback to all student teachers. Hager (2012) recorded the classroom activities, including all student teachers teaching their classes, and used the recordings to review the teaching activities

and give appropriate feedback to each teacher. According to Hager (2012), student teachers could use video self-monitoring to track observations and behaviors of interest. Tripp and Rich (2012) analyzed the recording of the teaching methods and found improvements in teaching behaviors based on their findings. Performing a video analysis as part of their self-monitoring encourages teachers to be more positive with students, provide more organized instruction, and improve question-asking strategies.

Coaches often use recordings and video analyses to enable their athletes to see themselves and improve their skills. In Schempp et al.'s (2007) study, expert golf instructors used a similar approach to teach more efficient swing techniques and correct body positioning. Unfortunately, not many coaches use video analysis for their own advantage. The same approach can be used for tennis coaches, who can record their private tennis lessons to identify and correct any negative aspects of their teachings.

Previous scholars have examined self-monitoring and leadership, linking the importance of self-monitoring to leadership emergence and effectiveness as well as followers' acceptance of the leader's vision (Sosik & Dinger, 2007). A good leader is willing to learn, which requires the ability to monitor one's own practice. Leaders also engage in self-monitoring to regulate their own behavior to make sure they are meeting the needs of other followers (Sosik & Dinger, 2007). Yet only a few studies on self-monitoring in sports have been conducted. Schempp et al. (2002) found that self-monitoring has been used in past research to assess and alter different types of behaviors in different aspects. In addition, several studies have discussed how self-monitoring can be used to prevent addiction relapse, increase self-efficacy, eliminate smoking, and

control mood. In sports, increased self-efficacy and the ability to control mood can mark the difference between a good and a great coach. Thus, regulating their own behaviors is part of the self-monitoring process and can be used in sports and academic institutions.

Polaha and Allen (2004) used self-monitoring as a common coaching strategy to reduce swimmers' stroke counts. They referred to self-monitoring as "an individual noticing and recording the occurrences on his or her own behaviors" (p. 261). The researchers concluded that their results were consistent with past self-monitoring research producing modifications in behavior (Polaha & Allen, 2004). In their study, the results were more positive with beginner swimmers than skilled swimmers. They concluded that more skilled swimmers need a more critical self-monitoring strategy to experience the benefits of self-monitoring practices compared to the same level of beginner swimmers. Polaha and Allen (2004) suggested that coaches from other sports should use self-monitoring strategies more often. Some of the qualities related to implementing self-monitoring include the ease of performing and the benefits for athletes and coaches. Their findings coincided with the use of self-monitoring as a self-mechanism to help athletes and coaches develop a superior performance in their area of expertise.

**Positive self-monitoring versus negative self-monitoring.** Previous literature has reviewed coaches' and athletes' use of positive self-monitoring (PSM) and negative self-monitoring (NSM) to track positive and negative behaviors in their teaching methods and performance. Martin and Anshel (1995) examined the momentary change in movement behavior during a practice session. They found that PSM involves tracking and recognizing one's own positive behaviors and characteristics while coaching whereas

NSM includes tracking negative behaviors or characteristics that a person desires to decrease or eliminate. For example, in tennis, coaches and players can apply PSM by tracking positive behaviors during a tennis match and reinforcing those behaviors in subsequent tennis matches. Meanwhile, they can apply NSM to monitor and reduce tennis players' and coaches' negative comments during a tennis match or practice. As their results suggests, self-monitoring can be used in broad and extensive fields in a positive way to increase performance behavior in sports.

Kirschenbaum and Bale (1980) offered an active self-monitoring technique for golfers using comments and feedback to positively influence various desirable psychological processes, such as attentional focus, concentration, and arousal. When they applied PSM strategies to golf, their findings indicated that PSM could accelerate overall performance quality toward achieving desired goals. The same strategy can be implemented in tennis, with tennis players identifying the problem with their racquet swings so they can produce better quality shots and swings after they receive proper feedback. After completing each shot, players can engage in self-monitoring and self-evaluation by noting which of their shots met their goal standards. PSM and NSM strategies require individuals to track their own positive and negative behaviors. If PSM and NSM are used properly, coaches and athletes will experience a change in their behaviors and consequently improve their performance.

As previous studies have demonstrated, self-monitoring insights can benefit coaches, athletes, and teachers. The studies showed that individuals linked to expertise use self-monitoring as a self-mechanism for improved performance (Schempp et al.,

2007). Similarly, athletes have benefited from positive and negative self-monitoring when performed correctly (Kirschenbaum and Bale, 1980). Past research included golfers using positive and negative self-monitoring to produce better quality swings. In conclusion, self-monitoring can be beneficial for different types of individuals; the use of self-monitoring is not restricted only to experts as beginner athletes and coaches can also use self-monitoring to improve desired performance.

**Importance of self-monitoring.** Self-monitoring has been associated with superior performances in expert coaching and relevant literature has also discussed the importance of implementing self-monitoring in experts, teachers, and students. Schempp, McCullick, Bush, Webster, and Mason (2006) found that self-monitoring is associated with several "actors, academic students, and athletes" (p. 26). Although most research on self-monitoring has been conducted in academic institutions to help different kinds of students, the literature reviewed in this section includes studies with coaches, athletes, student with disabilities, high school students, and graduate students, exploring self-monitoring as a tool to improve academic and athletic performance.

Unfortunately, few studies have explored why coaches need to be an effective elite coach. Knowles, Borrie, and Telfer (2005) found that it is the "capacity of coaches to practice, reflect, and then learn from their experiences, that is central to develop coaching effectiveness" (p. 1712). Coaches in their study used cognitive skills and determined the appropriate actions to take at each stage of the coaching process. Another study on the difference between expert and novice coaches indicated that coaching expertise is linked to critical thinking and improved decision-making skills (Strean,

Senecal, Howlett, & Burgess, 1997). The study covered critical thinking in the self-monitoring process and thoroughly examined the decision-making skills required in this process.

Webster and Schempp (2008) noted that the primary difference between experts and novice coaches is the more accurate identification of their strengths and weaknesses, which means requiring coaches to self-monitor their experiences and the fundamental aspects of their performance. Many benefits of self-monitoring have been identified. For example, self-monitoring can lead to the development of strategies for professional maintenance and growth (Webster & Schempp, 2008). Lan and Morgan (2003) traced self-monitoring to superior performances in acting, academic achievement, and motor learning by demonstrating the relationship between superior performance and self-monitoring skills for different individuals.

Lan's (1996) study demonstrated the importance of self-monitoring with graduate students in a statistics class who were monitoring their own learning skills. Lan (1996) mentioned different studied related to self-monitoring in academic institutions, including studies involving students with disabilities and college and graduate students. McCurdy and Shapiro (1992) studies students with disabilities using self-monitoring to monitor the number of mistakes in their performance and inconsistency. Meanwhile, Delclos and Harrington (1991) asked students to write in their computers and self-monitor their problem-solving efforts. Results indicated that students using self-monitoring strategies provided by professors resolved their problems in less time than students who did not use the self-monitoring strategies. This finding does not mean that self-monitoring will work

with every individual every time, but it demonstrated the importance of self-monitoring strategies in academic institutions.

Tan (1997) found that experts in any field using self-monitoring strategies were more aware of errors and better able to accurately predict which issues would be difficult to handle. With self-monitoring, experts understand to a broader extent why they fail to comprehend individual elements of a problem and are aware of the appropriateness or adequacy of the solutions attempted (Tan, 1997). Ericson (2006) and Kilbourn (1991) found similar results related to expert instructors' self-monitoring, which enabled expert instructors to decide which teaching skills and factors could improve their performance. These results suggest that self-monitoring can inspire a teacher or coach to move past an evaluation of one's experiences, thereby providing a faster solution to negative issues.

Webber, Scheuermann, McCall, and Coleman (1993) concluded in their study examining "self-monitoring as [a] behavior management technique in special education classrooms" that self-monitoring can be used to increase "positive classroom behaviors, attention to task and some social skills" (p. 38). Their results confirmed the idea that self-monitoring is widely used by academic institutions to increase positive behavior in students. In their study, students recorded behaviors such as "task completion, positive statements, accurate work, positive classroom behaviors, or goal attainment" (Webber et al., 1993, p. 54). More research in self-monitoring versus teacher monitoring in the classroom should be conducted to determine which one is more effective for students (Webber et al., 1993).

Zimmerman and Paulsen (1995) explained why self-monitoring is important among college students. First, "self-monitoring enhances learning in many fundamentals ways" (p. 15). Self-monitoring can improve students' time management in their studies because self-monitoring promotes reflective thinking. In the sports context, college athletes are known to struggle when managing all their activities such as school, social life, and athletics. In this case, the use of self-monitoring can help them think and analyze why they do not have sufficient time for all their activities. Time logs can help in this type of situation, contributing to athletes' time management skills for spending time equally on all priorities. According to Anderberg (2017), the first step to becoming more productive during the day is to track the time people spend on their daily activities. This strategy is a form of self-monitoring because students enter into reflective thinking and track their own time, thereby realizing that they spend a lot of time on non-important activities (Anderberg, 2017).

Zimmerman and Paulsen's (1995) second important aspect was "self-monitoring helps students discriminate between effective and ineffective performance" (p. 15). In tennis, athletes can record their morning practices to determine where they are underperforming. They realized that practicing at earlier times affected their performance; thus, they needed to practice at another time or in different climate conditions. The third important aspect identified by Zimmerman and Paulsen (1995) indicated that "self-monitoring often reveals the inadequacy of a learning strategy and prompts the student to find a more suitable one" (p. 15). In the sports context, coaches focused on the self-monitoring strategies that made them look favorable in terms of

student athletes' learning. When a coaching strategy was not working, coaches self-monitored their coaching instruction and changed those behaviors to provide a more successful practice or lesson.

Zimmerman and Paulsen (1995) further noted that "formal self-monitoring can guide personal adjustment" when students or athletes are challenged by difficult tasks or problem-solving decisions (p. 17). In athletics, self-monitoring can be very useful when performing new skills that are difficult for novice athletes. When athletes who know how to self-monitor are presented with difficult athletic tasks, they tend to self-monitor their skills and technique abilities to come up with new ways to attain the new skills. In the example provided by Zimmerman and Paulsen (1995), the students were more able to understand the content of the book because they had developed an informal self-monitoring strategy (reading more slowly) and engaged in formal self-monitoring. They were reading while recording important information from the book and characters to understand the content better.

The literature reviewed in this section has highlighted the importance of self-monitoring in academic institutions and athletics. Self-monitoring in schools is important for the development of successful performance in students and teachers. Although not a lot of research has involved coaches and athletes using or benefiting from self-monitoring, existing research has shown multiple benefits that expert golf instructors gleaned to perform better and become better coaches when using self-monitoring strategies on a daily basis.

**Self-Monitoring Strategies**

This section reviews the literature on four aspects that expert instructors monitor related to their teaching: instructional skills, teaching perspective, personal characteristics, and knowledge base. Self-monitoring strategies were mentioned for each of the areas of focus from expert instructors.

According to Webster and Schempp (2008), "recent research indicates that expert teachers self-monitor four fundamental aspects of their teaching: (1) instructional skills, (2) teaching perspective, (3) personal characteristics, and (4) knowledge base" (p. 23). Some of the most common responses involving these four aspects of their teaching were "looking for ways to make teaching easy to understand and simple to use," "never be[ing] satisfied and evaluat[ing] myself," "watch[ing] videos of golf and swings," and "read[ing] a lot of book, websites and research outside of golf" (Schempp et al., 2007, pp. 180–186).

Webster and Schempp (2008) further determined that self-monitoring instructional skills was the first area expert golf instructors should self-monitor. Videotape feedback can be very useful for coaches wanting to improve their instructional skills. Coaches watch videos to see themselves providing the lesson or instruction and determine which aspects of their teachings need to be addressed and performed better. After they observe and analyze their teachings, coaches should focus on setting goals to constantly improve their teaching skills (Webster & Schempp, 2008). In tennis, sport-specific skills require proper complex motor task instruction, and it is important for coaches to demonstrate the appropriate techniques without confusing the athletes. In

Webster and Schempp's (2008) study, the use of videotape feedback helped coaches evaluate themselves for successful instruction and recognize their own strengths and weaknesses in coaching.

Coaches and instructors have taken greater advantage of higher technology in recent years. Schempp et al. (2007) interviewed the best golf instructors in the United States and found several coaches using technology as a self-monitoring method. Expert golf coaches believed that the use of video/technology could speed up the learning process. The use of technology in self-monitoring provided the instructors the ability to review their teaching methods (Schempp et al., 2007). Tennis coaches or players can watch their swing practices in videotape and speed up the learning technique process for each swing.

Webster and Schempp (2008) mentioned a second strategy for coaches to measure their instructional skills. Self-monitoring required a teacher to assess and recognized their own teaching skills and reflect on these skills individually (Webster & Schempp, 2008). Coaches should focus on identifying all instructional skills in their daily work. Specifically:

> by listing all the teacher functions necessary for effective teaching, teachers can create a broader and better-defined spectrum of their skill base, which in turn can enable them to reflect more thoroughly on their teaching and evaluate their pedagogical skills from multiple perspectives (Webster and Schempp 2008, p. 24).

Instructional skills self-monitoring strategies included in this study were the use of video feedback and video analysis for coaches to reflect and analyze their own instructional strengths and weaknesses (Webster & Schempp, 2008).

Webster and Schempp (2008) asserted that the teaching perspective involved broadening the instructor's view of the teaching process to provide athletes with a better lesson or instruction. One example of instructional teaching skills is providing different teaching methods to encourage more athletes to enjoy and learn the sport (Webster & Schempp, 2008). Expert teachers understand that effective instruction for directed students requires meeting everyone's needs on a particular subject, including making instructions easier to follow, challenging themselves with new customers, and seeking creative ways to keep students more entertained by the sport (Webster & Schempp, 2008).

Another strategy expert teachers can use for their development is working with different types of clients (Schempp et al., 2007). Webster and Schempp (2008) mentioned that "no single teaching strategy fits the needs of every student. The broader and more diversified the range of approaches that teachers employ, the better chance they have reaching more students in a meaningful way" (p. 25). For example, in tennis, working in conjunction with youth, high school kids, and adults will be beneficial for enhancing the instructor's experience and development. Schempp et al. (2007) concluded that teaching perspective is the area of focus most self-monitored by expert golf coaches.

According to Webster and Schempp (2008), athletes and coaches use personal characteristics self-monitoring strategies to improve their personal lifestyle choices,

performance, and/or instruction in sports. Some personal characteristics athletes monitor to improve and enhance their performance include improving diet, sleeping earlier, and staying hydrated all day. Webster and Schempp (2008) concluded that "teachers aim to maximize their performances potential through personal actions. Additionally they "realized the importance of strengthening the link between personal and professional attributes to better serve the needs of their students" (p. 26). Behavior, beliefs, and values are some of the examples of personal characteristics instructors used in this study (Webster & Schempp, 2008).

In their analysis of self-monitoring strategies with golf instructors, Schempp et al. (2007) mentioned that self-monitoring strategies are common with personal characteristics. Furthermore, golf instructors confirmed the capacity to recognize significant connections between their personal and professional lives, "which suggests a powerful and meaningful commitment to their professional practice" (p. 182). Coaches using positive behavior in front of athletes will encourage them to reflect on their positive behavior on the field. Golf coaches also recognized the importance of the relationship between their own personal behavior changes and athletes' performance (Schempp et al., 2007).

The most common self-monitoring strategies related to the area of focus knowledge base included seeking help from others and reading books (Webster & Schempp, 2008). In this study, expert coaches were not satisfied with just an extensive knowledge of the sport; seeking help from others, especially more experienced coaches, was a common strategy among the coaches. According to Webster and Schempp (2008),

"expert teachers recognize the benefits of surrounding themselves with lofty ideas, and they look from people whose skills and knowledge surpass them" (p. 27). The participating coaches recognized the need to keep improving themselves, even if they were already experts in their area of interest. Tan (1997) added that "experts make a significant investment in learning all they can about their field study and enjoy talking almost endlessly about their subject, and they often seek out other views on pertinent topics" (p. 31). Expert coaches' constant efforts to improve highlights one characteristic that ensures that they are experts in their field and have a "never stop learning" kind of attitude.

Schempp et al.'s (2007) study on golf instructors determined that reading books is a very common method used as part of the self-monitoring strategy. Golf- and non-golf-related books were included in some of the golf instructors' responses related to efforts to expand their knowledge. In addition to reading, the golf instructors monitored what they read and analyzed how those readings benefitted their teaching and increased elements of expertise (Schempp et al., 2007). Webster and Schempp (2008) considered reading to be an economical and accessible way to improve one's teaching skills and knowledge base. Bobby Bowden, one of the winningest coaches in college football history, has a house library consisting of military leadership strategy books. Coach Bowden applied similar winning strategies from these books in the sports context to be a successful coach on the field (Webster & Schempp, 2008). With this knowledge, he continued to succeed on the field while increasing his level of expertise based on his military leadership strategy books (Webster & Schempp, 2008).

In summary, expert golf instructors self-monitor four aspects of their teachings: instructional skills, teaching perspective, personal characteristics, and knowledge base. Each area of focus was described, along with common self-monitoring strategies expert instructors use to improve their coaching methods.

**Summary of the Literature Review**

This chapter has reviewed existing literature on self-monitoring to explain why self-monitoring is important for coaches, athletes, teachers, and students seeking to correct negative behaviors and keep improving their performance. The literature reviewed highlighted four areas that coaches self-monitor: instructional skills, teaching perspective, personal characteristics, and knowledge base. Although some studies have focused on self-monitoring among expert golf instructors, more research is needed to gain a greater understanding of self-monitoring practices within different sports. The current study aimed to discover common self-monitoring strategies among collegiate tennis coaches to retain strengths and weaknesses, thereby highlighting similarities and differences in the use of self-monitoring strategies between golf and tennis coaches.

CHAPTER 3

METHODS

This study focused on self-monitoring strategies used by the best collegiate tennis coaches in order to find out how coaches maintained their strengths and improved their weaknesses. The research replicated Schempp et al.'s (2007) study "How the Best Get Better: An Analysis of the Self-Monitoring Strategies Used by Expert Golf Instructors."

Schempp et al. (2007), conducted a qualitative study to analyze the self-monitoring strategies used by 31 expert golf instructors to improve their teaching methods. The purpose of this methods section is to present the necessary steps for analyzing the self-monitoring strategies used by the best collegiate tennis coaches, using the same approach that Schempp et al. (2007) applied to golf instructors. This chapter is divided in six sections: (1) participants, (2) data collection procedures, (3) data instrument, (4) trustworthiness and credibility, (5) data analysis, and (6) conclusion.

**Participants**

The population of this study was the United States Division 1 tennis coaches, which includes 260 tennis coaches. A sample of 40 individuals was chosen based on the last five years of Division 1 collegiate rankings published by the Intercollegiate Tennis Association (ITA). The selected programs in this research were the men's and women's programs that have been ranked in the top 20 programs for the last five years. The coaches of these top 40 institutions were selected as a sample, and 24 participants completed the survey, yielding a response rate of 60%. Most respondents (n = 18) were coaches from the men's tennis, while the remaining six were from women's tennis. Overall, 20 male coaches and four female coaches responded to the survey. The data gathered for this research combined responses from both from men's and women's rankings. The coaches were described through several different aspects in order to identify different self-monitoring strategies.

**Data Collection Procedures**

This research applied the Dillman tailored design (DTD), which is the development of survey procedures to measure respondents' trust and perceptions of increased rewards and reduced costs for being a respondent (Dillman, 2000). Initial contact with the targeted respondents was made through social media portals because the coaches use social media to their advantage, including—but not limited to—recruiting new athletes. If the coaches were not available through social media channels, their official university email was used to contact them. Ultimately, 27 coaches were contacted via Facebook and 13 via official university emails.

The data for this study was gathered through a survey process using qualtrics as a web-based survey tool. In the 20 years since the development of DTD, it has been used for thousands of surveys and has consistently produced higher response rates than traditional surveys (Dillman, 2000). Therefore, Dillman's (2000) elements for achieving a high response rate were followed:

(1) A pre-notice was sent via Facebook messaging informing coaches about the survey.

(2) The link to the survey and a cover letter were sent to participants via email.

(3) After two weeks, a reminder was sent to all participants with a survey replacement link.

(4) A follow-up/thank you email was sent.

As the survey was distributed through social media channels, the questionnaire was made available online. The online survey sent to tennis coaches inquired about the specific strategies used to maintain their strengths and improve weaknesses.

**Data Instrument**

The online questionnaire used the same questions from Schempp et al.'s (2007) questions for golf coaches to identify the specific professional practices of coaching, considering both strengths and weaknesses, but this research focused the target population to college tennis coaches. The survey process asked the participants to identify previously used strategies to ensure that their coaching or instruction remained consistent or even improved over time and to determine whether they used any strategies to reduce their weaknesses.

Four tennis coaches who were not study participants pilot tested the survey. Following the pilot test, the pilot test participants were asked to make recommendations for any corrections or modifications to the online survey. As there were no indications requiring changes to the survey, the researchers did not make any changes. The survey used can be found in appendix

**Data Analysis**

The data was analyzed using pre-defined constructs, based on Schempp et al.'s (2007) steps on self-monitoring strategies of golf instructors. The research also looked for non-conforming responses and reordered them as emergent themes. Existing studies conducted by Schempp et al. (2007) mentioned three data analysis steps, which were replicated in this study.

**Step 1.** The data analysis for this research began with the researcher reviewing the written responses in order to identify strategies used by teachers to recognize strengths and weaknesses. The self-monitoring strategies used to retain strengths were then listed on one spreadsheet while the self-monitoring strategies used to improved weaknesses were listed on another one. The study used the pre-defined constructs based on Schempp et al.'s (2007) study. Then the investigator reviewed the strategies listed by collegiate tennis coaches to retain strengths and improve weaknesses.

**Step 2.** The researcher reviewed the listed strategies for new emergent themes and commonalities. Initially, it was thought that the strategies for addressing strengths and weaknesses would be different, but in Schempp et al.'s (2007) study, it became apparent that the same strategy could be used in either case. For example, a strategy such as "watch other teachers teach" could be listed for both maintaining strength and rectifying a weakness. Schempp et al. (2007) reviewed the operational definition of a strategy in their search for guidance in analyzing the data. They adopted the definition of a strategy as consisting of two sequential components: a goal and an action. In the current study, the researcher replicated Schempp et al.'s (2007) operational definition of a strategy and used goals and actions to categorize the responses from participants.

Regarding the information gathered from golf coaches, Schempp et al. (2007) concluded that "self-monitoring goals included improving communication, adjustments to personal lifestyle, examining teaching perspectives and increasing learning" (p 175). Furthermore, "self-monitoring actions incorporated seeking help from others, reading,

using technology, developing business strategies and adapting teaching practices" (p. 175). The theme developing business strategies was not included in the present study.

**Step 3.** This research looked at the common responses and consistency from the findings and compared them with the responses from golf instructors in Schempp et al.'s (2007) study. It listed the responses in two categories: goals and actions. In the search for themes that summarized, crystalized, and explained the category, commonalities and consistencies of the responses were identified. According to Schempp et al. (2007), the categories for goals include teaching perspective, personal lifestyle, learning, and communication. The actions identified for maintaining the strengths or improving weaknesses were classified as seek help from others, adapt teaching practice, read, use technology, and develop business strategies. This research mixed the data structure from Schempp et al.'s (2007) research with new emergent data structure from tennis coaches, adding more information as the data was explored.

Schempp et al.'s (2007) research provided a priori conceptualization and early systematization for data collection and constructed the framework for this research. Schempp et al.'s (2007) prior research was used to analyze the findings and emergent themes obtained from this research.

**Trustworthiness and Credibility**

This research applied Lincoln and Guba's (2007) strategies to ensure the trustworthiness and credibility of the study. Trust must be attended to from the first contact with research participants. According to Lincoln and Guba (2007), trust is person specific, which means that the researcher had to develop trust with each person

individually. The researcher had existing professional relationships with most of the participants or created one while attending collegiate tennis tournaments. In addition, trust is established over time (Lincoln and Guba, 2007). The researcher traveled to tournaments several years around the area and developed a professional relationship with the coaches. The professional relationship between the researcher and most of the participants helped increase the response rate and the credibility of the responses.

The credibility criterion involved establishing the idea that, according to Chioncel, Van Der Veen, Wildemeersch, and Jarvis (2003), "the results of qualitative research are credible or believable from the perspective of the participant in the research." (p. 500). The credibility of this study depends on quality responses instead of quantity, and to assess the credibility of the data, the investigator used Lincoln and Guba's (2007) strategies to ensure credibility in this study. The research used four credibility strategies based on Lincoln and Guba (2007): (1) developing an initial expertise with the culture of participating organization, (2) using strategies to confirm the honesty of the informants, (3) examining previous study findings to measure the similarity of the responses, and (4) conducting an expert verification.

The first strategy was developing an early familiarity with the culture of participating organizations before the first data collection dialogues took place. In this step, the researcher traveled to tournaments around the area and met with coaches in person. The second strategy was using tactics to help ensure the honesty of informants when contributing to data. Participants were encouraged to be honest from the beginning

of the study, and the researcher indicated that there were no right answers to the questions asked.

The third strategy was examining previous research findings to assess the similarity of the responses with those from past studies. Findings from previous studies conducted using the same approach and addressing comparable issues may be invaluable sources (Shenton, 2004). The fourth strategy consisted of conducting an expert verification from a participant. The participant reviewed the results of the study, providing comments on and making suggestions for the study.

Trustworthiness and credibility were established in the early stage of this research, before and during data collection. The researcher developed a trust relationship with most of the participants and used Lincoln and Guba's (2007) strategies to ensure the credibility of the data.

**Conclusion**

The participants for this study were coaches from the top 40 tennis universities, ranked from the last five years of college tennis rankings, and applied DTD to collect their responses. The online survey was replicated from Schempp et al.'s (2007) previous study on self-monitoring strategies used by golf instructors. Strategies were applied to ensure the credibility of the study and analyze the data. Schempp et al.'s (2007) data analysis approach to self-monitoring strategies by golf instructors was replicated, and the self-monitoring strategies by tennis coaches were analyzed based on the prior conceptual framework and new emergent themes.

CHAPTER 4

RESULTS

The current study analyzed the self-monitoring strategies used by collegiate coaches to improve their strengths and weaknesses. This section includes information on participants' descriptions, an overview of the research process, Schempp et al.'s (2007) themes from their research with expert golf instructors, and new emergent themes from the current study's data. The sections are: (1) overview of the research process, (2) description of the participants, and (3) description of Schempp et al.'s (2007) and emergent themes.

**Overview of the Research Process**

According to participants' perceived strengths and weaknesses in their instruction, their responses were separated into self-monitoring goals and self-monitoring actions. In setting goals, the themes used in Schempp et al.'s (2007) study and replicated in this study were (1) personal lifestyle, (2) learning, and (3) teaching perspective. The emergent themes in this category included (1) communication to develop relationships and (2) accountability among staff. In setting actions, the themes used for this study were seeking help from others, adapting teaching, reading, and using technology. The emergent theme in the category of actions included sticking to the coaching philosophy.

**Description of the Participants**

The participants in this study were 24 Division 1 collegiate tennis coaches whose men's and/or women's teams ranked in the top 40 during the last five years (i.e., 2012–2016) of the ITA tennis rankings in the United States. The coaches had been widely

recognized in the college tennis competitions by many of their peers. They completed an eight-question survey that was available online. Tables 1 through 3 are frequency tables based on participants' gender, age, and years of experience in college tennis.

Table 1.

*Frequency Table Based on Gender*

| Gender | Count | Percentage |
|--------|-------|------------|
| Male | 20 | 83% |
| Female | 4 | 17% |

The sample consisted of 32 male coaches and eight female coaches, resulting in a 80%-to-20% ratio. The study included 20 male participants and four female participants. The majority of respondents (n = 18) were coaches from the men's tennis, while the remaining six were from women's tennis. The reason more males were included than females is because there were more male coaches in the top 40 men's and women's rankings from the last five years.

Table 2.

*Frequency Table Based on Age Group*

| Age | Count | Percentage |
|-----|-------|------------|
| 18–24 years | 0 | 0% |
| 25–34 years | 4 | 17% |
| 35–44 years | 3 | 12% |

| | | |
|---|---|---|
| 45–54 years | 4 | 17% |
| 55 and over | 13 | 54% |
| Prefer not to say | 0 | 0% |

Thirteen participants were 55 years or older, four were between 45 and 54 years old, three were between 35 and 44 years old, four were between 25 and 34 years, and none were between 18 and 24 years old.

Table 3.

*Frequency Table Based on Years of Experience*

| Years of Experience | Count | Percentage |
|---|---|---|
| 0–5 years | 4 | 17% |
| 6–10 years | 7 | 29% |
| 11–15 years | 2 | 8% |
| 16–20 years | 1 | 4% |
| 21–25 years | 1 | 4% |
| 26 years and over | 9 | 38% |

The majority of participants had 26 or more years of coaching experience for college tennis. Four participants had fewer than five years of experience, seven had between 6 and 10 years, two had between 11 and 15 years, one had between 21 and 25 years, and nine had more than 26 years of experience. The participants' school locations

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were kept confidential to eliminate any identifiers that could link their responses back to the participants.

**Themes**

Schempp et al.'s (2007) major themes related to expert golf instructors were used and replicated in this study to analyze the responses obtained from the collegiate tennis coaches. Themes involved in the goals category were (1) personal lifestyle, (2) learning, and (3) teaching perspective. The emergent themes in this category included (1) communication to develop relationships and (2) accountability among staff. The themes replicated for actions were (1) seeking help from others, (2) adapting teaching practice, (3) reading, and (4) using technology. The emergent theme for actions included (1) sticking to coaching philosophy. Schempp et al.'s (2007) theme developed business strategies was not included in this study. The researcher developed a summary of each theme with actual words from each coach to understand the benefits of self-monitoring better.

**Personal lifestyle**. The most common theme from the collegiate tennis coaches was personal lifestyle. The participants identified personal characteristics that would help them become better coaches, on and off the tennis court, and all the identified characteristics were related to the theme of personal lifestyle. In addition, the main characteristics participants mentioned changed their personal practices. For retaining teaching strengths, the personal lifestyle theme was responsible for most of the self-monitoring strategies listed by the collegiate tennis coaches. Coaches' responses included "find ways to love tennis and keep my love for tennis alive. For me, I play tennis and I

made tennis a big part of my family" and "set professional standards for the players." Based on these comments, the coaches decided to make tennis a priority in their personal lives too.

Coaches and athletes may experience burnout in the sport after so many years of coaching and practicing, making it essential for coaches and athletes to discover new ways to enjoy tennis again. The constant pressure of winning could be one of the reasons why coaches and athletes feel overwhelmed and dissatisfied with the sports. Comments like "make the decision to bring passion and energy daily even if I don't feel up for it" and "bring more passion to the game of tennis" to improve mental toughness, stroke production, and match strategy were some of the similar responses tennis coaches gave to improve their areas of weakness.

To decrease weaknesses, collegiate coaches mentioned "[being] open minded to new ideas" and developing a "never stop learning type of attitude to increase skills on personal weaknesses." Elite coaches develop motivation tools to increase their knowledge base whereas beginner or inexperienced tennis coaches might think they know everything about the game of tennis. As previously mentioned, coaches find ways to increase their passion for tennis, which keeps them motivated to increase their knowledge. Other comments coaches mentioned to improve areas of practice structure and keep players interested were "I need to be disciplined and diligent with organization and preparation" and "organization in delivering my ideas."

Other common responses from the participants included the solely critical focus on finding ways to retain strengths and improve weaknesses. Such responses included

"remained focused on always improving myself and my skills," "focusing and concentrate[ing] on my strengths every day," and "I am aware of weaknesses, of what they are, and I am always looking for ways to get better at them." According to these coaches, they identify their strengths and weaknesses every day and recognize the need to evaluate their skills to improve their teaching methods. This constant attention to keep improving themselves is a form of self-monitoring.

**Learning.** The second most common theme coming from the collegiate tennis coaches was the goal and variety of learning. Statements falling within the learning category include several ways to keep learning new teaching techniques in order to become better coaches. Several responses were linked to finding new ways to teach technique for tennis strokes. Comments such as "use USPTA website for the latest in stroke production and mental toughness articles" and "widen my knowledge base from many sources" were some of the responses tennis coaches gave regarding how to improve technical coaching and add different techniques to their knowledge base. All coaches had their own way to teach techniques for tennis strokes, but adding different methods will help them find new ways to reach new student athletes. Not every student athlete learns how to play tennis the same way; thus, collegiate coaches are eager to learn new ways to teach appropriate techniques to their athletes. Their responses included "practicing different techniques with the team to see what works and what does not" and "attending USPTA conventions" to learn new and updated stroke productions and techniques. These responses are linked with the studies from Schempp et al. (2007), which found that "having knowledge of students and understanding their strengths and

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barrier was an important characteristic of self-monitoring strategy among expert golf instructors" (p. 30). Tennis coaches realize that not all their teaching methods work with every student athlete, which is why they are eager to learn new ways about how teach a specific tennis technique.

It is impressive how more experienced coaches are willing to learn more to become even better coaches. According to Zimmerman and Paulson (1995), self-monitoring has been used as a tool to motivate people's learning process to succeed in their performances. One of the responses that caught the investigator's attention comes from one of the most experienced college coaches in the United States, who mentioned, "I have done my best to study championship programs and the ways they operate to figure out what we can do to go from being one of the best to the best." This response demonstrates that even experienced coaches are never satisfied with their teaching methods for operating an athletic team. Schempp et al. (2007) mentioned in their final results that "self-monitoring appears to be potentially tool in the process of leaning to teach and coach" (p. 182). Responses from both tennis coaches and golf instructors related to this theme were very similar and comparable.

Staying motivated for a long period of time in order to be a successful coach is not an easy task. Schempp et al. (2007) mentioned that self-monitoring is linked to motivation for a constant learning journey. One of the tennis coaches was very specific in staying motivated to achieve his/her goals: "I need to stay motivated even when things do not look to be in our favor. I need to then motivate myself to work harder to generate some positive factors." Based on the answers from collegiate tennis coaches, the

investigator concluded that more experienced coaches never stop their learning process. They constantly look for new ways to learn techniques as well as learn from other successful programs. This demonstrated that even coaches in the top-ranked programs for both men and women keep learning new aspects of the sport to continue their development as tennis coaches.

**Communication to develop relationships.** Turman (2003) mentioned that communication in sports has not being researched enough in the literature. Communication between coaches and athletes is very important for the development of each individual (Turman, 2003). Turman (2003) mentioned three specific factors that make the coach–athlete's instructional communication essential for sports. First, coaches play an important role in the development of athletes. Second, communication help kids to become more involved in youth sports and, consequently, return for more training sessions. Third, "because of the parallels between instructional communication in classroom teaching and instructional communication in athletic coaching, it is likely that researching the relatively unexplored area of coaching communication may be of heuristic value for research on teacher communication" (Turman, 2003, p. 74). Some of the most common responses when analyzing the data related to the importance of communication to develop a greater relationship with athletes. One of the coaches mentioned:

"I have always had good relationships with players, but adding extra time talking with them and getting to know them at a higher level has been very beneficial. It helps to understand why their strengths are strengths and why they struggle in other areas".

Another coach mentioned the importance of communication with athletes after practice to keep building a professional relationship: "I have been working with each player individually after practices in trying to figure out a little more of their backgrounds so we can work together in setting up goals that are beneficial for my program and themselves." The responses from the collegiate tennis coaches show consistency in greater communication to develop relationships and connect with their athletes.

**Teaching perspective.** In goal-related responses, teaching perspective was one of the themes collegiate tennis coaches gave the least attention to, unlike in Schempp et al.'s (2007) study with expert golf instructors. Golf instructors provided more responses related to teaching perspective than collegiate tennis coaches, which could be because golf instructors had more years of coaching experience than collegiate tennis coaches. One of the coaches mentioned:

"I think perspective is a big one with college tennis as there can be a lot of pressure during matches and even during the everyday grind. I try to pass on my perspective that results are not the end of the story, whether you win or lose. If our players compete at their best and push themselves, they know that they can't walk away as losers." With this response, the coach demonstrated maturity in developing a bigger picture, especially in competition.

Inexperienced coaches sometimes show their inexperience by getting angry at student athletes because their job depends on the results of their student athletes performance. One coach offered a comment to support this statement: "Whenever a difficult situation arises I do my best to take time to consider the way to handle it that will

build our players and team up for the future rather than tear them down." This demonstrates maturity for this coach, who analyzed the situation before reacting to difficult situations. In other circumstances, inexperienced coaches might react in a negative way toward their athletes, thereby ending the respectful relationship between coaches and athletes. Other responses from tennis coaches, such as "positively reinforcing student athletes for their training" and knowing when to give "constructive coaching" and "critical coaching," demonstrate the importance of tennis coaches in their teaching perspective with student athletes. The perspective that coaches bring into their teachings is an important aspect for becoming better instructors to connect with their athletes more, especially as student athletes can be under a lot of stress in critical moments of the academic semester. Perspective is a significant process for becoming a better coach; it makes coaches focus on the positives rather than the negatives for each student athlete.

**Accountability among staff.** A few coaches demonstrated the importance of open accountability of both players and staff in making sure assistants and players are accountable for their work and perform the necessary tasks to become better coaches and players. A few coaches mentioned the open accountability among staff and players as one of the strategies for improving weaknesses, such as disciplinary consistency. Coaches want to promote more consistent responsible behaviors and actions among their staff, including assistant coaches, media, players, and administrators. Everyone has a job, and everyone should be responsible for their own actions and behaviors. The importance of accountability comes with the benefits that everyone knows what they are supposed to do

in their respective tasks; if they do not, they are held accountable for their actions. Thus, the coaches believed that open accountability among staff is beneficial for the overall organization. Making sure everyone knows their job tasks and applying consequences help the team improve disciplinary consistency among staff.

     **Seek help from others.** Observing and talking to more experienced coaches were the most mentioned self-monitoring goals provided by collegiate tennis coaches. In searching for commonalities with Schempp et al.'s (2007) study's responses from golf instructors, the researcher found similarities in the theme on seeking help from others. Collegiate tennis coaches seek guidance from more experienced coaches to become better coaches. They value the professional insights of their experienced colleagues and see the benefits of expanding their knowledge with professional feedback. To improve their weaknesses, one of the coaches mentioned that, "by researching, reading and talking a lot from past accomplished coaches, gathering feedback on what has made them great" is important for addressing weaknesses related to player/coach development, communication, and energy on the court. According to another coach, "sharing thoughts with other experienced coaches and acquiring their opinions on things" is necessary to develop more knowledge in tennis.

     Even if the head coaches had more coaching experience than their assistant coaches, they mentioned that the assistants had helped them achieve big successes for their careers. One of the coaches mentioned the use of assistants for player development: "I also use my assistants in ways in which their role play bigger part in these areas if that is an area of strength from them." Lemyre, Trudel, and Durand-Bush (2007) found the

use of assistants to be very useful for recreational coaches seeking to become more elite coaches. Their study revealed how even more experienced coaches seek guidance and feedback from their assistants to become better at coaching. Vallée and Bloom's (2005) study, "Key and Common Elements of Expert Coaches," mentioned that one common characteristic in expert coaches is that "coaches developed mutually respectful relationships with their support staff and viewed them as valuable sources of help, encouragement, and insight, both on and off the court" (p. 191). The findings demonstrated that the use of assistant coaches is a common strategy for experienced collegiate tennis coaches' success.

In seeking help from others to develop more general experience in tennis, coaches mentioned "watching other coaches teaching lessons" as being very helpful to improve their teaching methods. The researcher found quite similar responses from golf coaches and collegiate tennis coaches using almost all the same methods in this category. In Schempp et al.'s (2007) study, golf instructors mentioned comments such as "spending time on the golf course observing experience coaches" and "listen[iing] to others"; in the current study, tennis coaches' responses included "paying attention to other coaches more experienced" and "sharing thoughts with more experienced coaches and acquiring their opinions on things."

**Adapt teaching practice.** This theme explains the changes coaches made to their teaching skills or practice modifications to increase the overall purpose of the lesson. The coaches in this study clearly emphasized the need to make changes because tennis constantly changes due to new technology for racquets and tennis players' athleticism.

Compared to 10 years ago, today's tennis players are faster, stronger, and more athletic overall because players and coaches now have more access to information, such as new diets and fitness. For example, one of the coaches mentioned "staying up to date with the current game as its always changing" to retain strengths in teaching technique and strategy to student athletes.

In addition, several coaches mentioned adapting practice for different individuals, as everyone is different and can learn in different ways. For example, coaches said "for each player it is different, so you have to know what they need and figure out what works best for them individually" and "I am trying to find commons areas that my entire team needs to work on so my time in individual works is less and I can focus more on everyone." These two types of responses are different: One coach is trying to work differently by applying different teaching methods individually with each player whereas the other is trying to adapt their practice so everybody benefits from the same drills and can focus more on all players.

According to Nash and Collins (2006), "experts are more flexible and are more able to adapt to situations" (p. 466). One of the coaches mentioned the use of a "personalized environment for players to adapt in different situations" to improve their performance on the tennis court. The researcher reviewed the responses and talked to the coach to find more details about this strategy. He gave a clear example: "When we were practicing at North Carolina to play in Miami, Florida, the following week, I decided that every one of my players should play with a sweater on top so we can simulate the conditions from Florida and perform better under those circumstances." With this theme,

the researcher found that coaches clearly monitor what works and does not work in their practices to adapt and make sure every student athlete benefits from this strategy.

**Reading.** Reading an extensive variety of tennis-related material was frequently mentioned by the collegiate tennis coaches as an action to continue their education and knowledge in the game of tennis. Comments such as "reading more books, articles, and websites about tennis" and "reading books from other successful coaches and players" demonstrate the actions in this theme to retain strengths and improve weaknesses. Similarities between expert golf instructors and collegiate tennis coaches were found in this theme. Reading sports-related and non-sports-related books seemed to be a constant characteristic among expert coaches.

To maintain or improve areas of strengths and weaknesses, the coaches monitored what they were reading to increase their knowledge and carefully reflected how it would help them become better coaches. For example, one coached mentioned "reading more mental toughness articles" to improve his own and the players' mental aspect of the game. In this theme, coaches used reading as a tool to keep improving their skills and knowledge.

**Use of technology.** Several responses from the coaches mentioned the use of video analysis to increase student athletes' performance. Coaches mentioned the "use of video for my players and so they can see themselves and their body language," "use [of] video analysis," and "the use of technology for my advantage" as an action to improve identifiable weaknesses. Indeed, coaches "found the video analysis sessions were useful for providing feedback on specific areas of the game that players often found hard to

recall…and the video provided the players with a view of the game that is often reserved for the coaches" (Groom & Cushion, 2004, p. 57).

Other actions related to technology were "watching online videos from respected coaches," "watching tennis online," "us[ing] social media to understand the new generations of players," and "watching USPTA website training sessions." Clearly, the participants in this study recognized the need for using social media and technology to their advantage. This could lead to a potential advantage in recruiting since a lot of student athletes' prospects are consistently using social media to contact coaches.

**Sticking to coaching philosophy.** Several experienced tennis coaches indicated that they implemented a defined philosophy vision concept in their teams. The problem is that not all coaches stick to their philosophies because they do not work all the time. Tennis coaches seeking to retain strengths in recruitment and player development mentioned comments such as "building and sticking to philosophy and my vision of each player." In this theme, coaching philosophy is important for the development of a team— namely, how a coach will treat, train, and help athletes become more successful. Philosophy should be shaped in the early stages of their coaching careers, and it is important that every coach has a defined coaching philosophy in order to help athletes understand the coaches better and be more aware of the positive aspects of their philosophy.

**Conclusion**

This chapter identified participants' gender, age, and years of experience on college tennis. It also included an overview of the research process, themes replicated

from Schempp et al.'s (2007) study, and emergent themes from the data. Each theme was described individually, with comments from the self-monitoring strategies provided by collegiate tennis coaches. The self-monitoring goals themes included personal lifestyle, learning, communication to develop relationships, teaching perspective, and accountability among staff. The self-monitoring actions themes included seeking help from others, adapting teaching practice, reading, using technology, and sticking to coaching philosophy. This information helped the researcher better understand the self-monitoring strategies used by collegiate tennis coaches and find any differences between expert golf instructors and collegiate tennis coaches.

CHAPTER 5

DISCUSSION

The purpose of this study was to gain a greater understanding of the self-monitoring strategies used to retain strengths and improve weaknesses among collegiate tennis coaches. It also sought to explore any differences between collegiate tennis coaches' and expert golf instructors' self-monitoring strategies. This study replicated Schempp et al.'s (2007) study with expert golf instructors but changed the population to collegiate tennis coaches. According to the investigator, this is the first study analyzing the self-monitoring strategies with collegiate tennis coaches. The first and second research questions were: (1) Which self-monitoring strategies are used by the best college tennis coaches to improve or maintain their coaching strengths? and (2) Which self-monitoring strategies are used by the best college tennis coaches to improve their coaching weaknesses?

The most common self-monitoring strategies shared by coaches were included in the personal lifestyle theme. Several coaches have developed goals and mentioned various personal characteristics to retain strengths. Characteristics such as being positive and demanding professional standards in their practices were some of the most common strategies, suggesting the importance of coaches in making changes in their personal behaviors to improve their performance when coaching student athletes. Some coaches mentioned changes to their personal lifestyle to keep their passion for tennis alive; consequently, their motivation to keep learning never ends. For collegiate tennis coaches

in this study, it is evident that they place more emphasis on correcting themselves rather than focusing more on the student athletes.

The second most common goal of a self-monitoring strategy was the motivation to keep learning. Conducting research on past coaches and championship programs and studying the game of tennis were some of the many responses provided by college coaches. It was clear in this study that coaches wanted to expand their knowledge base in tennis to become better coaches. Continuing education is one of the many important characteristics developed by expert coaches and teachers. The participants demonstrated the importance of continued learning in tennis, which highlights the differences between experienced coaches and beginner coaches. Schempp et al. (2002) explained that novice coaches feel they do not have to learn anymore or expand their knowledge. Meanwhile, more experienced coaches develop an urgency to keep learning so they do not fall behind the competition.

Communicating to develop professional relationships with student athletes was common among college coaches. Coaches mentioned "listening more to athletes and adapting conversations depending on the background of everyone" as one of the strategies. As college tennis is filled with international students, coaches adapt their communication to connect more with athletes. Coaches emphasized values, beliefs, country of origin, and several other aspects in their conversations with student athletes. Schempp et al.'s (2007) found that expert teachers' most common characteristics included self-monitoring their communications with athletes. Thus, it is evident that

coaches self-monitor their communication according to the individual, making it an important aspect to address as their personal goals.

Teaching perspective was the least common theme mentioned by collegiate tennis coaches in setting goals to retain strengths and improve weaknesses. Tennis coaches emphasized the process instead of winning or losing, although inexperienced coaches placed greater importance on winning. Student athletes make a lot of sacrifices to earn an education and play a sport at the same time. Respecting the process, reinforcing positive behaviors on the court, and being able to relate with each student athlete were some of the common responses related to the teaching perspective. Schempp et al.'s (2007) study of expert golf instructors identified more strategies in the teaching perspective theme than collegiate tennis coaches did in the current study. This could be because, in golf, instructors were categorized and ranked as experts. In college tennis, there is not an official ranking to decide who is an expert or not.

For self-monitoring actions, tennis coaches recognized the need to seek help from others to keep developing new skills as a coach. Talking to other more experienced coaches was one of the most common responses provided by collegiate tennis coaches in the category of actions. They see the benefits of talking and reading books by previously successful coaches to improve. It is clear that tennis coaches value the wisdom of experienced coaches and seek help when they need it. The accessibility to communicate with other more experienced coaches has increased in past years. Today, everyone has access to emails from successful coaches and information from social media, and coaches are taking advantage of these technological aspects to connect with other successful

coaches. According to Webster and Schempp (2008), "expert teachers recognize the benefits of surrounding themselves with lofty ideas, and they look from people whose skills and knowledge surpass them" (p. 27). This means that college tennis coaches recognize their more experienced colleagues and see the importance of sharing thoughts and knowledge with them to become better coaches.

Delivering different teaching methods is another aspect commonly used by collegiate tennis coaches in this study. Adapting behavior and teaching expanded their ways to treat and teach student athletes. Coaches emphasized the background of each athlete to adapt their behaviors or teaching according to the individual. Several coaches used this strategy to maximize student athletes' performance and connect with them more. While younger generations might respond differently to old techniques from past coaching styles, more experienced coaches. Adapting the lessons to maximize athletes' performance is another example of adapting teaching methods. For example, a tennis coach might change the dynamic of the lesson with a group of kids when they only have one court; the coach will adapt the situation so all kids benefit from the lesson on just one court.

Reading books, articles, and studies was some of the common self-monitoring actions college coaches used. Tommy Bowden, one of the most respected and successful football coaches in college, shared that he keeps his house full of books, including football-related and non-related books (Webster & Schempp, 2008). More experienced coaches' need to read comes with the motivation to keep improving, becoming a better person and a more successful coach. The findings demonstrate the focus on reading more

tennis-related books, while golf instructors in Schempp's et al. (2007) study read a greater variety. Since the golf instructors were defined as experts, this could be a difference between expert and non-expert coaches.

The use of technology is critical for collegiate tennis coaches to keep connecting with the new generation of athletes. The literature indicated that video analysis is widely used by teachers in academic institutions, athletes, and coaches. For coaches, the benefits of video analysis are recognizing weaknesses such as teaching methods, body language, and organizational skills. For example, tennis coaches might not know about their poor body language on the court, which could lead athletes to become uninterested or bored in the tennis court. Today's coaches are more familiar with technology strategies to correct techniques on racquet swings. Phones now include slow-motion video technology, simplifying corrections, which can help student athletes understand the problem with their swings.

The third research question was (3) What are the differences between the self-
    monitoring
strategies used by expert golf instructors and collegiate tennis coaches? The expert golf instructors demonstrated a greater emphasis in their teaching perspectives compared to collegiate tennis coaches. This difference might be because the expert golf instructors were more experienced than collegiate tennis coaches and were more selective in their self-monitoring strategies to retain or improve their teaching perspective. The researcher was surprised with the low number responses related to teaching perspective since it can be very beneficial for collegiate tennis coaches working with student-athletes.

Broadening their teaching perspective will help them to seek new alternatives to keep athletes motivated while they perform under stress with athletics and school.

Since college tennis is filled with international students-athletes, the coaches put more emphasis in communicating closely with them, so they can gain greater understanding of their backgrounds. Schempp's et al., (2007) study was U.S golf coaches working with golfers individually from the U.S. This is one reason the collegiate tennis coaches put more emphasis in communicating with their athletes to know them better. Athletes from other countries might not react the same with comments, behaviors or teaching methods from coaches in the U.S. The collegiate tennis coaches used communication to develop the relationship as a self-monitoring strategy to improve professional relationship with student-athletes.

Accountability among staff and sticking to coaching philosophy was some of the areas collegiate tennis coaches focused differently to expert golf instructors. College coaches worked with groups of staff including assistant coaches, graduate volunteer coaches, administrators, fitness and health trainers. While expert golf instructors were working by themselves, it might the biggest reason why collegiate tennis coaches put emphasis on accountability among staff and players. Sticking to coaching philosophy might work better in teams rather than working with individuals. Tennis is an individual sport, but in college tennis, coaches worked with tennis players as part of one team. The philosophy coaches brought to their values, practices and coaching methods will enhance their teamwork. While expert golf instructors can be more flexible with their coaching philosophy since they are working with athletes individually.  This section included self-

monitoring strategies to retain strength and improve weakness. Also, differences between collegiate tennis coaches and expert gold instructors were included as part of the study.

**Future Research**

This study replicated Schempp et al.'s (2007) study on the best golf instructors in the United States, using collegiate tennis coaches instead. Future research should be expanded to include more expert tennis coaches in the United States beyond the collegiate circuit as there are probably more helpful self-monitoring strategies to consider in more detail. A greater understanding of the range of tennis coaches is needed to develop a more reliable study on which self-monitoring strategies are more commonly used among the perceived best coaches. The best tennis coaches in the United States, who might be collegiate coaches, will provide richer data because they are more experienced and focused more on the individual than the tennis team in universities. Also, the study will benefit from gathering responses in person to allow the coaches to provide more detailed strategies used to retain strengths and improve areas of weakness. Such research can help collegiate tennis coaches improve their teaching skills and address weaknesses.

Because of the professional relationships between the researcher and the coaches, this study has more responses from male coaches than female coaches. It would be interesting to identify different aspects of teaching from a female coach's efforts to retain strengths and improve weaknesses. The study would also benefit from interviews via the phone or in person to gain more details of the self-monitoring strategies provided by tennis coaches; such an approach would further enable the researcher to conduct a member check at the same time the interview is given and provide a credibility

verification of the responses. In addition, using different types of criteria to recruit participants would help gather the best tennis coaches. Using win/lose criteria plus team rankings would help choose the best tennis coaches. Finally, the study was conducted during the collegiate tennis season; conducting the study during a less busy time could lead to more and better responses from participants.

**Limitations of the Study**

No specific criteria exist on how to choose or decide who is an expert tennis coach. In Schempp et al.'s (2007) study, they selected participants according to *Golf Sports Magazine* top 100 golf instructors in the United States. The collegiate tennis coaches in the current study were selected based on team rankings from the last five years; as such, they might not be the best college coaches, but there were the closest criteria the researcher could find to select the participants. Also, the ranking of the respondents teams was not asked, so it is not known whether the best coaches answered the survey.

The study was also limited because the researcher only focused on collegiate tennis coaches instead of all tennis coaches in the United States. Also, more responses from the men's ranking were collected in this study. This is because the researcher is better known on the men's circuit which could have influenced the lower rate from the women's teams. Furthermore, all the strategies were self-report and consequently, the coaches could be lying on what self-monitoring strategies used to retain strengths and improve weaknesses. Also, the investigator is an insider; therefore, it may not be easy to translate specific tennis strategies to individuals who may not be familiar with sport of

tennis. The researcher had more access to collegiate tennis coaches because of his past job as a graduate assistant coach at Clemson University. The study was conducted during the collegiate tennis season; this could have influenced the quality of the responses from participants.

**Implications**

The insights provided by collegiate tennis coaches can help understand the benefits of self-monitoring strategies to retain strengths and improve weaknesses. Specifically, for novice coaches, this study would help them become more self-regulated and identify aspects of their teachings to improve their teaching methods. Novice coaches tend to lack experience and knowledge about how to become a better coach, and these insights can help them move in the right direction. In addition, other sports (besides tennis and golf) can benefit from this study and understand the benefits of self-monitoring in coaches.

More experienced coaches look for ways to seek help from other expert coaches to keep developing their coaching careers. Inexperienced coaches gain insights from talking to other coaches to develop a successful career. The researcher was surprised about the collegiate tennis coaches seeking more help from others as one of the common characteristics of many of the participants. The coaches realized they do not know everything and that there is always something to learn every day. If younger coaches can apply this strategy and learn from their behaviors and teaching ideas, they can change in a positive way to become better coaches. Inexperienced coaches do not value the

importance of talking to other coaches because they think they know everything already; this is part of being inexperienced and young.

The use of books can help coaches develop more extensive knowledge about the sport desired—not just knowledge of the game, but also perspective in their teachings. Today's coaches have more access to books, journal articles, and libraries online. Younger and inexperienced coaches usually gain their knowledge from coaching athletes on the field. Sports-related and non-sports-related books and journal articles can help with the development of younger coaches. As an inexperienced coach, the researcher found several benefits of reading books like *The Energy Bus* and *The Power of Summit* by Jon Gordon to become a more positive person on and off the field. The example that more experienced coaches read books to increase their knowledge and their behavior to become more positive can motivate younger and inexperienced coaches to do the same and become better coaches.

In addition, inexperienced tennis coaches might find this study more helpful compared to   Schempp et al. (2007) research. This is because the self-monitoring strategies provided by collegiate tennis coaches might be more specific to tennis related activities. Inexperienced tennis coaches will find more strategies provided by more experienced tennis coaches and will help to apply them in their teachings methods. The researcher will benefit from this study, because the strategies were provided by collegiate tennis coaches will encourage younger coaches to practice self-monitoring as a form to monitor teaching skills, behaviors and teaching methods and consequently enter critical thinking and find strategies to improve weaknesses.

**Conclusion**

This study examined and analyzed the self-monitoring strategies most common among collegiate tennis coaches. By identifying their strengths and weaknesses, coaches provided a detailed strategy to retain their strengths and improve their weaknesses. Schempp et al.'s (2007) themes fit most of the responses by collegiate tennis coaches. These themes for coaches' goals included teaching perspective, personal lifestyle, and learning. The emergent themes were communication to develop relationships and accountability among staff. For coaches' actions, themes included seeking help from others, adapting teaching, reading, and using technology. The emergent theme included in this category was sticking to coaching philosophy. Every coach listed the self-monitoring strategies that helped them retain strengths and improve weaknesses to become more successful coaches. Additional research should look more into other sports, mainly individual sports to explore any differences and similarities between coaches self-monitoring strategies. If inexperienced tennis coaches have a clear understanding of the benefits of self-monitoring and apply them, it might help them to accelerate their process and become better tennis coaches.

References

Allinder, R. M., Bolling, R. M., Oats, R. G., & Gagnon, W. A. (2000). Effects of teacher self-monitoring on implementation of curriculum-based measurement and mathematics computation achievement of students with disabilities. *Remedial and Special Education*, *21*(4), 219–226.

Anderberg, J. (2016, December 14). Keeping a Time Log: How to Do It and Its Benefits. Retrieved April 16, 2017, from http://www.artofmanliness.com/2016/12/12/get-done-2017-tracking-time/

Baker, J., Yardley, J., & Côté, J. (2003). Coach Behaviors and Athlete Satisfaction in Team and Individual Sports. *International Journal of Sport Psychology*.

Chioncel, N. E., Veen, R. V. D., Wildemeersch, D., & Jarvis, P. (2003). The validity and reliability of focus groups as a research method in adult education. *International Journal of Lifelong Education*, *22*(5), 495–517.

Delclos, V. R., & Harrington, C. (1991). Effects of strategy monitoring and proactive instruction on children's problem-solving performance. *Journal of Educational Psychology*, *83*(1), 35.

De Marco Jr., G. M., & McCullick, B. A. (1997). Developing expertise in coaching: Learning from the legends. *Journal of Physical Education, Recreation & Dance*, *68*(3), 37–41.

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method* (Vol. 2). New York: Wiley.

Ericsson, K. A. (2006). The influence of experience and deliberate practice on the development of superior expert performance. *The Cambridge Handbook of Expertise and Expert Performance*, *38*, 685–705.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, *49*(8), 725.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, *100*(3), 363.

Groom, R., & Cushion, C. (2004). Coaches' perceptions of the use of video analysis: A case study. *Insight*, *7*(3), 56–58.

Hager, K. D. (2012). Self-monitoring as a strategy to increase student teachers' use of effective teaching practices. *Rural Special Education Quarterly*, *31*(4), 9.

Hood, N. (2014, May 08). 'Best Is The Standard' more than just a phrase to Brent
        Venables. Retrieved April 16, 2017, from
        http://www.tigernet.com/story/football/Best-Is-The-Standard-phrase-Brent-
        Venables-12896

Janssen, J., & Dale, G. (2002). *The seven secrets of successful coaches.* New York:
        Winning The Mental Game.

Keeney, S., Hasson, F., & McKenna, H. (2006). Consulting the oracle: ten lessons from
        using the Delphi technique in nursing research. *Journal of advanced
        nursing*, *53*(2), 205-212.

Kilbourn, B. (1991). Self-monitoring in teaching. *American Educational Research
        Journal*, *28*(4), 721–736.

Kirschenbaum, D. S., & Bale, R. M. (1980). Cognitive-behavioral skills in golf: Brain
        power golf. *Psychology in Sports: Methods and applications*, 334–343.

Knowles, Z., Borrie, A., & Telfer, H. (2005). Towards the reflective sports coach: Issues
        of context, education and application. *Ergonomics*, *48*(11–14), 1711–1720.

Lan, W. Y. (1996). The effects of self-monitoring on students' course performance, use
        of learning strategies, attitude, self-judgment ability, and knowledge
        representation. *The Journal of Experimental Education*, *64*(2), 101–115.

Lan, W. Y., & Morgan, J. (2003). Videotaping as a means of self-monitoring to improve
        theater students' performance. *The Journal of Experimental Education*, *71*(4),
        371–381.

Lemyre, F., Trudel, P., & Durand-Bush, N. (2007). How youth-sport coaches learn to
        coach. *The Sport Psychologist*, *21*(2), 191–209.

Martin, M. B., & Anshel, M. H. (1995). Effect of self-monitoring strategies and task
        complexity on motor performance and affect. *Journal of Sport and Exercise
        Psychology*, *17*(2), 153–170.

McCurdy, B. L., & Shapiro, E. S. (1992). A comparison of teacher-, peer-, and self-
        monitoring with curriculum-based measurement in reading among students with
        learning disabilities. *The Journal of Special Education*, *26*(2), 162–180.

Nash, C., & Collins, D. (2006). Tacit knowledge in expert coaching: Science or art?.
        *Quest*, *58*(4), 465–477.

Polaha, J., Allen, K., & Studley, B. (2004). Self-monitoring as an intervention to decrease swimmers' stroke counts. *Behavior Modification*, *28*(2), 261-275.

Schempp, P. G., McCullick, B. A., Busch, C. A., Webster, C., & Mason, I. S. (2006). The self-monitoring of expert sport instructors. *International Journal of Sports Science & Coaching*, *1*(1), 25-35.

Schempp, P., Tan, S., Manross, D., & Fincher, M. (1998). Differences in novice and competent teachers' knowledge. *Teachers and Teaching*, *4*(1), 9–20.

Schempp, P., Tan, S. K. S., & McCullick, B. (2002). The practices of expert teachers. *Teaching and Learning*, *23*(1), 99–106.

Schempp, P. G., Webster, C., McCullick, B. A., Busch, C., & Sannen Mason, I. (2007). How the best get better: an analysis of the self-monitoring strategies used by expert golf instructors. *Sport, Education and Society*, *12*(2), 175–192.

Schwandt, T. A., Lincoln, Y. S., & Guba, E. G. (2007). Judging interpretations: But is it rigorous? Trustworthiness and authenticity in naturalistic evaluation. *New directions for evaluation*, *2007*(114), 11-25.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63–75.

Strean, W. B., Senecal, K. L., Howlett, S. G., & Burgess, J. M. (1997). Xs and Os and what the coach knows: Improving team strategy through critical thinking. *The Sport Psychologist*, *11*(3), 243–256.

Sosik, J. J., & Dinger, S. L. (2007). Relationships between leadership style and vision content: The moderating role of need for social approval, self-monitoring, and need for social power. *The Leadership Quarterly*, *18*(2), 134–153.

Tan, S. K. (1997). The elements of expertise. *Journal of Physical Education, Recreation & Dance*, *68*(2), 30–33.

Tripp, T. R., & Rich, P. J. (2012). The influence of video analysis on the process of teacher change. *Teaching and Teacher Education*, *28*(5), 728–739.

Turman, P. D. (2003). Athletic coaching from an instructional communication perspective: The influence of coach experience on high school wrestlers' preferences and perceptions of coaching behaviors across a season. *Communication Education*, *52*(2), 73-86.

Vallée, C. N., & Bloom, G. A. (2005). Building a successful university program: Key and common elements of expert coaches. *Journal of Applied Sport Psychology*, *17*(3), 179–196.

Webber, J., Scheuermann, B., McCall, C., & Coleman, M. (1993). Research on self-monitoring as a behavior management technique in special education classrooms a descriptive review. *Remedial and Special Education*, *14*(2), 38–56.

Webster, C. A., & Schempp, P. G. (2008). Self-monitoring: Demystifying the wonder of expert teaching. *Journal of Physical Education, Recreation & Dance*, *79*(1), 23–29.

Zimmerman, B. J., & Paulsen, A. S. (1995). Self-monitoring during collegiate studying: An invaluable tool for academic self-regulation. *New Directions for Teaching and Learning*, *1995*(63), 13–27.

Zimmerman, B. J. (2002). Achieving academic excellence: A self-regulatory perspective. *The Pursuit of Excellence Through Education*, 85-110.

APPENDIX A

The survey used for this study included:

1. I am a:

    o   Male

    o   Female

2. Please select your age:

    o   18–24

    o   25–34

    o   35–44

    o   45–54

    o   55 or older

    o   I prefer not to say

3. Years of experience in college tennis:

    o   0–5 years

    o   6–10 years

    o   11–15 years

    o   16–20 years

    o   21–25 years

    o   26 years or more

4. School region location:

    o   South

- o   Northeast

- o   Midwest

- o   West

- o   I prefer not to say

5. Identify three aspects of your teaching that you consider strengths.

6. How do you ensure they remain assets in your instruction?

7. Identify three aspects of your teaching that you have tried to strengthen in your

teaching.

8. How have you attempted to improve in these areas?