

Measuring the Service Quality of International Tennis Federation Coaches Education Courses

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DEDICATION

I would like to dedicate this study to my family, who is the reason I strive every day to become a better person.

I would also like to dedicate this study to the numerous children I have taught and learned so much from in my tennis coaching exploits in over 50 countries worldwide.

Declaration

I, Karl Davies, herewith declare that the language of this research report has been English edited in the APA style by English Professor Dr. Linda Nash, Tennessee Tech University, Cookeville, TN, USA.

Karl Davies

Date

I, the undersigned, declare that this thesis is my own original work and has not been previously used in full or in part at any other university for degree purposes.

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Date

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SUMMARY

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Degree: M A (Human Movement Science)
Title of Thesis: Measuring the Service Quality of International Tennis Coaches Education Courses
Study Leader Prof Dr A.E. Goslin (University of Pretoria)

In order to have a thriving business, tennis coaches on all levels need to keep players in their program. Coaches who tend to have the most influence on the game of tennis are developmental coaches. Developmental coaches are coaches who work with starter-beginner tennis players. The first impression that an aspiring player has of the game will ultimately predict their future participation. Usually the first introduction to any sport is through a coaching lesson (Gilbert & Trudel, 2004). The quality, therefore, of coaching that developmental coaches produce in their lessons will have a significant bearing, not only on their own program, but also the game of tennis. It may be assumed that developmental coaches should be proactive in making sure they have the right skills to coach players. This would entail attending a course staged by their respective National Tennis Federation. Unfortunately, this is not the case as the image of tennis coach education courses is somewhat negative; participants of courses are of the feeling that they are not receiving the required knowledge to deliver high quality service tennis coaching (McCullick, Belcher, & Schempp, 2005).

Researchers have proven a positive influence between coach education courses and a coach's confidence and efficiency (Vargas-Tonsing, 2007). Considering the globalization of sports, including tennis, coach education and the demand for qualifying coaches, has been on the rise (Vargas-Tonsing 2007). In light of this information, tennis has stepped up its efforts to provide a better education to their coaches through adopting coaching courses that have the most updated coaching information and matching educative resources (Crespo, McInerney, & Reid, 2006). Santos, Mesquita, Garca, and Rosado (2001) have concluded that the quality of coaching has a direct relationship to the success and satisfaction of its participants and ultimately in their willingness to stay in the sport. There has been a change in focus by researchers in coach education from coaches' behaviours and performance towards thoughts and knowledge that form the basis of coach's actions (Gilbert & Trudel, 2004). Many developed tennis federations have established their own unique models of coach education

and certification to ensure that those individuals working with a country's top young players are employing both current coaching practices and working with these players with a methodology and philosophy that is player-centred where the health and well-being of the athlete is put first (Crespo *et al.*, 2006).

The International Tennis Federation (ITF) is the world governing body of tennis and is responsible for the overall development of the game worldwide. Its structure comprises of five departments: Presidential and Communications, Commercial, Finance and Administration, Professional Tennis, and Tennis Development. The Tennis Development benefits from the Grand Slam Development Fund, a fund comprising of equal donations from the four grand slam nations: Australia, France, Great Britain, and the United States of America (ITF, 2011).

ITF's Development Department's objective is to help developing countries grow the game. Tennis is known as a sport that is very good at attracting players to the sport, however, very poor at retention (USTA, 2008). Therefore, if the ITF could get coaches to coach starter-beginner tennis players in such a way that would entice them to stay in the sport, this would go a long way in guaranteeing the game's future. One of the ITF's development programs is the availability to developing countries of a coach education syllabus, should they not already have one in place. A large majority of developed countries have their own curriculum and, therefore, do not require the ITF's assistance. Currently, there are 80 nations that use, in some form or other, the ITF's coach education syllabus (Miley, 2011). The ITF, therefore, influences a great number of coaches worldwide by way of developing countries using the ITF's coach education syllabus. It is for this reason that the ITF's coach education syllabus should be the cutting edge in coach education design, ultimately to fulfill its objective of developing the game worldwide.

A major component of participation in the sport of tennis falls on the shoulders of the tennis coach. In most cases, the first port of call of any interested starter-beginner tennis player is the coach. Researchers have shown that the quality of coaching has a direct relationship to the success and satisfaction of its participants and ultimately their willingness to stay in the sport (Santos *et al.*, 2001). Although quality of coaching is not the only intervening variable in the continued involvement in tennis, it is recognized as a significant, contributing factor to the development and retention of players (Santos *et al.*, 2001, Misener & Danylchuk, 2009).

Evaluating the quality of service of tennis coaches' courses as a service, therefore, become fundamental to the sustainable development of tennis as a sport.

From an educational point of view the development of sports coaches is a complex process that requires not only an individualized program, but in many cases random learning pathways (Nelson & Cushion, 2006). It is the requirement of coach education syllabi to recognize this and to comply with the demands of the coach as they play a critical role in tennis participation and retention. Misener and Danylchuk (2009) justify the importance of the coach when they say, "*Coaches are influential figures in the social, physical, psychological and emotional development of athletes*" (Misener, & Danylchuk 2009:1).

The requirement for effective coach education certification programs is becoming increasingly important worldwide for many reasons (McCullick *et al.*, 2005). First, the number of children who participate in youth and interscholastic sport are increasing dramatically (McCullick *et al.*, 2005). In addition, female participation, older people playing the sport, and newer sports forms are also on the increase which has created a demand for more qualified coaches and sports instructors, thus, making the education and certification of coaches essential, particularly at the entry level (McCullick *et al.*, 2005). Most of the developing countries using the ITF coach education syllabus have a policy that all coaches need to be affiliated and be certified in order to coach. Ensuring that all coaches go through the certification system, the need for coaching courses, particularly at the developmental level to transfer the appropriate knowledge to the coaches in order to retain players, is paramount.

The findings of this research emphatically point towards the ITF's Starter-Beginner Coaching course providing a high level of quality of service. Considering the worldwide perspective of the sample generated to make this research's analysis and interpretations, the ITF is doing its best to impact coaches in a positive way. The implementation of the modified rules program into the ITF's Coach Education Syllabus has been positively received by the participants of this research. This provides the confidence to the coaches in their attempt to attract and retain tennis players in this program. If every coach who takes the ITF's course is receiving the appropriate knowledge and doing their best to retain players, this will have a worldwide impact on the game of tennis. This would be the ultimate goal of the ITF as the status and future of the game falls in their hands. From a coach's educational point of view, the ITF is fulfilling its objective.

OPSOMMING

Kandidaat: Karl Davies
Graad: M A (Human Movement Science)
Titel: “Measuring the Service Quality of International Tennis Coaches Education Courses”
Promotor Prof. Dr. A.E. Goslin (Universiteit van Pretoria)

Ten einde ‘n florerende besigheid aan die gang te hou, is dit nodig dat tennis afrigters op alle vlakke spelers in hulle program behou. Ontwikkelingsafrigters is afrigters wie met beginner-tennisspelers werk. Die eerste indruk wat ‘n voornemende speler van die spel het, sal aan die einde van die dag sy/haar toekomstige deelname bepaal. Gewoonlik is die eerste blootstelling aan enige sport by wyse van ‘n afrigtingsles (Gilbert & Trudel, 2004). Derhalwe sal die gehalte van die afrigting wat ontwikkelingsafrigters oplewer ‘n geweldige impak hê, nie slegs op hulle eie program nie, maar ook op die spor van tennis in geheel. Dit mag aanvaar word dat afrigters proaktief moet wees om te verseker dat hulle bekwaam is om spelers af te rig, wat sal behels dat hulle ‘n kursus bywoon wat deur hulle plaaslike Nasionale Tennisfederasie gereël word. Ongelukkig is dit nie die geval nie, aangesien die indruk wat opleiding vir tennisafrigters skep, ietwat negatief is en deelnemers dus van mening is dat hulle nie die nodige kennis opdoen om tennisafriging van ‘n hoë gehalte te lewer nie (McCullick, Belcher & Schempp, 2005).

Verskeie studies dui aan dat daar ‘n positiewe verband is tussen afrigtersopleidingskursusse en ‘n afrigter se selfvertroue en doeltreffendheid (Vargas-Tonsing, 2007). As die wêreldwye groei van sport, insluitend tennis, in ag geneem word, is daar ‘n aanvraag vir afrigtersopleiding en ‘n toename in behoorlik opgeleide afrigters (Vargas-Tonsing, 2007). Na aanleiding hiervan, het tennis pogings aangewend om beter opleiding aan afrigters te verskaf deur afrigtingskursusse aan te bied wat opgedateerde afrigtingsinligting met gepaardgaande opvoedkundige hulpbronne kombineer (Crespo, McInerney & Reid, 2006). Santos, Mesquita, Garca en Rosado (2001) het tot die gevolgtrekking gekom dat daar ‘n direkte verwantskap is tussen die gehalte van afriging en die sukses en tevredenheid van deelnemers, asook hulle voortgeseth behekenherd die sport. Tans gee navorsers meer aandag aan die menings en kennis van afrigters as aan hulle houding en gedrag, soos in die verlede (Gilbert & Trudel, 2004). Heelwat Tennisfederasies het hulle eie unieke modelle van afrigteropleiding en sertifisering ontwikkel te einde te verseker dat diegene wie met ‘n land se top jong spelers betrokke is, moderne afrigtingsmetodes gebruik asook metodologie en

filosofie wat speler-georiënteerd is en die welstand van die atleet eerstens in ag neem (Crespo *et al.*, 2006).

Die Internasionale Tennisfederasie (ITF) is die wêreldwye tennis beheerligaaam verantwoordelik vir die algehele ontwikkeling van die spel wêreldwyd. Dit bestaan uit vyf afdelings: President en Kommunikasie; Handel/Kommersieël; Finansies en Administrasie, Professionele Tennis; en Tennis Ontwikkeling. Laasgenoemde geniet die voordeel van die Grand Slam Development Fund, 'n fonds wat bestaan uit gelyke skenkings vanaf die vier “grand slam” nasies, naamlik Australië, Frankryk, Groot-Brittanje en die Verenigde State van Amerika (ITF, 2011).

Die doelstelling van die ITF se Ontwikkelingsdepartement is om ontwikkelende lande by te staan met die groei van die spel. Tennis staan bekend as 'n sport wat aantrekkingskrag het, maar versuim om spelers te behou (USTA, 2008). Derhalwe, sou die ITF daarin slaag om afrigters te oortuig om beginnerspelers op so 'n manier af te rig dat dit hulle sou aanmoedig om te volhard met die sport, kom dit lei tot die spel se voortbestaan. Een van die ITF se ontwikkelingsprogramme is die beskikbaarstelling van 'n afrigters-opleiding leerplan aan ontwikkelende lande, indien hulle dit nie reeds in werking het nie. Heelwat ontwikkelde lande het hulle eie leerplanne en benodig dus nie die ITF se bystand nie. Daar is tans 80 lande wat op een of ander manier die ITF se afrigtersopleidingsleerplan benut (Miley, 2011). Die ITF beïnvloed dus wêreldwyd 'n groot aantal afrigters deur middel van ontwikkelende lande wat die ITF se afrigters-opleidingstelsel benut. Daarom is die ITF se afrigters-opleidingsleerplan noodsaaklik vir die opleiding van afrigters om aan die einde van die dag hulle doelwit te bereik ten opsigte van ontwikkeling van die sport wêreldwyd.

'n Verneme komponent van deelname aan tennis berus dus op die afrigter. In die meeste gevalle word die afrigter uit die staanspoor benader deur 'n belangstellende beginner speler. Navorsing het aangedui dat die gehalte van afrigting 'n direkte verwantskap het met die sukses en tevredenheid van deelnemers en laastens ook hulle deursettingsvermoë (Santos *et al.*, 2001). Alhoewel gehalte van afrigting nie die hoofsaaklike veranderlike in die voorgesette betrokkenheid by tennis is nie, word dit erken as 'n betekenisvolle bydraende faktor tot die ontwikkeling en behoud van spelers (Santos *et al.* 2001, Misener & Danylchuk, 2009). Deur die gehalte van die diens van tennisafrigterskursusse te bereken, is dus wesenlik tot die voortdurende ontwikkeling van tennis as 'n sport.

Vanuit ‘n opvoedkundige oogpunt, is die ontwikkeling van sport afrigters ‘n ingewikkelde proses wat nie slegs ‘n alleenstaande program vereis nie, maar in baie gevalle ook toevallige verneemde weë (Nelson & Cushin, 2006). Dit is ‘n vereiste van afrigters-opvoeding leerplanne om dit te besef en om dienooreenkomstig afrigters se vereistes tegemoet te kom, aangesien hulle ‘n noodsaaklike rol speel in tennis deelname en behoud. Misener en Danylchuk (2009) regverdig die belangrikheid van die afrigter deur te noem dat “*Coaches are influential figures in the social, physical, psychological and emotional development of athletes.*” (Misener & Danylchuk 2009:1).

Vir verskeie redes word die vereistes vir effektiewe afrigtersopleidings programme alhoemeer belangrik (McCullick *et al.*, 2005). Eerstens, is daar ‘n groot toename in die aantal kinders wie aan jeug- en skoolsport deelneem (McCullick *et al.*, 2005). Dan ook is daar ‘n toename in die aantal vroue en ouer persone wie deelneem, asook nuwe sportvorms wat ontwikkel en wat lei tot ‘n aanvraag vir meer opgeleide afrigters en sport instruktors. Derhalwe is daar meer druk dat afrigters behoorlik opgelei moet word en erkenning moet kry, veral op intree-vlak (McCullick *et al.*, 2005). Die meeste van die ontwikkelende lande wat die ITF afrigters-opleidings leerplan volg, het ‘n beleid dat alle afrigters geaffilieer moet wees en dat hulle erken moet wees voordat hulle mag afrig. Deur te verseker dat alle afrigters deur die erkenningssisteem goedgekeur word, is dit noodsaaklik dat afrigtingskursusse van uiters belang is, veral tydens die ontwikkelingsfase wanneer toepaslike kennis oorgedra word na die afrigters ten einde spelers te behou.

Die bevindinge van hierdie navorsing dui daarop dat die ITF se Starter-Beginner afrigtingskursus ‘n hoë vlak van gehalte diens voorsien. Vanuit ‘n wêreldwye oogpunt aangaande die steekproef wat vir hierdie navorsingsanalise en uitlegging saamgestel was, doen die ITF sy uiterste om ‘n positiewe invloed op afrigters uit te oefen. Respondente tot hierdie navorsing het die implementering van die gewysigde reëls program ten opsigte van die ITF se Afrigters Opleiding Leerplan, goedgekeur. So ‘n besluit gee afrigters die vertroue om tennisspelers te lok en te behou in die program. Sou elke afrigter wie die ITF kursus bemagtig, die nodige kennis bemeester en sy uiterste doen om spelers te behou, sal dit ‘n wêreldwye impak op die spel van tennis uitoefen. Dit sal die einddoel van die ITF bewerkstellig, aangesien die status en toekoms van die spel in hulle hande berus. Vanuit ‘n afrigter se opvoedkundige oogpunt, voldoen die ITF dus aan sy doelwit.

CHAPTER 1

ORIENTATION, PROBLEM STATEMENT, AIM AND METHODOLOGY OF THE STUDY

1.1 ORIENTATION

Research in the area of quality of service in the sport and recreation industry is growing rapidly as a result that more people are wishing to be healthier and using sport and recreation products to satisfy their needs. The growing interest has created more demand for sport and recreation products; and to compete in the market, businesses are finding that they need to offer better quality of service. The research that has been completed so far when assessing service quality in the sport and recreation industry can be used to greatly affect and quantify the quality of service of tennis coach education courses.

Tennis, and for that matter most sports, rely on coaches to develop the game. They are generally the link between people taking up a sport and staying in it. The quality of coaching administered by the coach, therefore, could have a big impact on whether starter-beginner tennis players will be attracted and continue to play tennis. For the development of tennis, each coach working with starter-beginner players should have the right tools to create a conducive, learning environment. The obvious avenue for coaches to obtain that knowledge is to take part in formal learning. It, therefore, falls on the responsibility of the National tennis federation to make sure it has courses that transfer the appropriate knowledge. Considering 80 National Tennis Federations currently use the International Tennis Federation (ITF) coach education syllabus, a quality of service evaluation of the ITF's Starter-Beginner course would seem appropriate.

Researchers have shown that the quality of coaching has a direct relationship to the success and satisfaction of its participants and ultimately their willingness to stay in the sport (Santos, Mesquita, Garca, & Rosado, 2001). Although quality of coaching is not the only intervening variable in the continued involvement in tennis, it is recognised as a significant contributing factor to the development and retention of players (Misener & Danylchuk, 2009). Evaluating quality of service of tennis coaches' courses as a service, therefore, becomes fundamental to the sustainable development of tennis as a sport.

Evaluating quality of service is also necessitated as professional tennis coaching has a business context. Customer satisfaction becomes central in the relationship between provider

and customer. By doing a quality of service evaluation of the ITF's Starter-Beginner course, it is hoped that the feedback obtained could increase the productivity of the course and facilitate the appropriate transfer of knowledge, and, thereby, promote the ability of coaches in the retention of tennis players. No research has been done before in tennis or any other sports on quality of coaching education, and the findings could provide the base for future research not only in tennis, but other sports as well.

The quality of sport services, such as coaching, is a decisive factor for the development of sport organizations (Perez, Minguet & Freire, 2010). Quality of service has been studied within the discipline of sport over the last two decades. The sport market is becoming increasingly competitive, and focus has shifted from internal performance of sport organizations to external interests like customer satisfaction and customers' perceptions of service quality (Perez *et al.*, 2010)

Sport coach education courses are recognized as services in a sport context. Literature indicates a link between the influence of quality coaching courses and the coach's coaching ability. There is a consistent drive to improve quality of coach education programs by measuring the perceptions of coaches involved in sport training courses to establish satisfaction from a service quality point of view (Erickson, Bruner, MacDonald, & Cote, 2008).

Changing coach education curriculum is not always clear cut and quick to make. Some coach education programs adopt the structure similar to tertiary education systems, the traditional classroom-based approach. In these circumstances much of the practical learning is done by the coaches in their work place with little direction (Dos Santos, Mesquita, dos Santos Graca, & Rosado, 2010). Coach education curriculums are prescriptive when it comes to teaching methods and neglect supervised field experiences (Santos *et al.*, 2001). The traditional approaches which many coach education programs have adopted seriously undermine the delivery of much needed practical knowledge.

Erickson *et al.*, (2008), in their study of actual and preferred sources of coaching knowledge highlight, the ineffectiveness of coach education programs due to the formal settings the courses often represent. Further mention was made of the lack of interaction between the coaches and the inability of courses to simplify the complexity of coaching into a brief course

of coaching science. They also stated that certain researchers have indicated that coach education courses make little impact in the development of coaching knowledge and expertise (Erickson *et al.*, 2008). According to Nelson and Cushion (2006), coach education is to a great extent de-contextualized learning by having practitioners coach one another. They continued to point out that although coaching courses provide an opportunity to undertake practical coaching experiences, coaching peers is not likely to reflect the coaches' coaching context and will, therefore, cause a wide range of coaching issues and responses.

Considering the process of learning, coach education programs have focused on acquisition learning metaphor, where tutors deliver information to their students who then must acquire this information and then apply it in their own practical environment (Wright, Trudel, & Culver, 2007). Using the acquisition learning metaphor to teach coaches, and not deliver any practical learning for a tennis coach would be an inefficient way of coach education. Having nothing but theoretical knowledge given to the coach, how would the coach interpret theoretical information and apply in a practical setting. Additionally those initial practical settings after the coaching course would be under no guidance of the coach education tutor. Important practical learning is, therefore, not acquired in that formal learning environment which then forces the coach to make their own interpretations or seek other avenues such as the internet. When consulting the internet, coaches would not know which experts to consult with or listen to. Therefore, that important practical knowledge that a coach requires, particularly tennis as it is a practical based profession, would have little quality control. Ideally both theoretical and practical knowledge should be delivered by coaching courses. Therefore formal learning through acquisition learning metaphors is not the appropriate way to transfer learnings from tutor to coach. Unfortunately coach education programs need to reach out to their participants and obtain a service quality assessment in making sure they receive that important practical knowledge. The overall purpose of coaching courses is to deliver the most updated practical knowledge according to sport science principles to allow coaches to deliver the best possible tennis lessons. In this regard, it appears as if coach education programs are missing the mark (Wright *et al.*, 2007).

A very important finding was obtained by Lemyre, Trudel, & Durand-Bush (2007) as they concluded that there is a discrepancy among coaches on the importance of formal coach education programs in their development of knowledge. Hesitancy exists with coaches taking coaching courses. Coaches are recognizing that there are many other ways and in most cases

more convenient avenues compared to taking formal coach education courses. These convenient avenues involve obtaining coaching knowledge through playing experiences, mentoring, and discussion with other coaches. It is, however, stated by Lemyre *et al.*, (2007) that this feedback on the perceptions of formal learning varies from coach to coach. These feelings and opinions of coaches on coach education are important as it is through their feedback that leaders of coach education programs need to take note and reshape their coaching services to achieve maximum efficiency in their objective to retain tennis players through coach education courses.

According to Trudel and Gilbert (2006) observations of the lack of effectiveness of coach education programs stems from the novice-expert continuum model. Coach education programs that use the novice-expert continuum model are being challenged because every coach will accumulate the same coaching concepts to progress along the continuum and finally reach the elite level (Lyle, 2002). This observation made by Lyle, (2002) supports the theory mentioned by Nelson, Cushion, & Potrac (2006) in the way that coaches are developed in the same manner and seem to conform to a conveyor belt of like-minded coaches. Considering the ITF uses a novice-expert continuum model, further insight is required in obtaining feedback from the coaches on the quality of service the ITF is offering through its first level course.

From the research of Trudel and Gilbert (2006), Nelson *et al.*, (2006), and Lemyre *et al.*, (2007), it is deduced that sport coach education courses are not achieving their objective of impacting the coaches' knowledge and behaviours. Coach education courses are not meeting the expectations of the candidate (tennis coaches) and are not providing appropriate quality of service. If adequate transfer of knowledge is not happening in formal tennis coach education context, starter-beginner tennis coaches cannot shape their coaching knowledge and deliver quality tennis lessons that help retain tennis players.

In 2007, the ITF launched the Play and Stay Campaign to promote the game of tennis. The ITF as the world governing body of tennis is responsible for growing the game worldwide. The ITF consists of 191 member nations, and is responsible to a board of directors that are elected two years. The ITF has over eighty staff based in Roehampton, England. The ITF also hires individuals on a contract basis around the world, such as coaches, officials, and development officers. The Play and Stay campaign focused on introducing the game of tennis

to more people through a modified rules version of the game. Many other sporting codes like soccer, netball, and golf have a modified game to introduce to their starter-beginner players; but unfortunately tennis did not have a modified version until only recently. Many professional tennis players and other important figures have given support for the Play and Stay Campaign program as they understand the importance to the game's future. Roger Federer, Andre Agassi, Steffi Graf and Michelle Obama have become ambassadors of this campaign. A major focus of this campaign is to get coaches using modified equipment when training starter or beginner players to facilitate accelerated learning pathways and retention of players. Since the launch, the ITF has done a great deal of promotion through coaches' workshops and marketing communication with all of their member nations. In addition, the modified methodology has been incorporated into its coach education syllabus, and in particular, a focus of these concepts in its Starter-Beginner Coaching Course (ITF, 2012b).

The popularity of tennis has been waxed and waned throughout the years. The ITF's involvement as world governing body is obviously crucial in making sure the game is always on an upward trend. The Tennis Industry Association (TIA) values the Tennis Industry at \$5.6 bn. This value is rather considerable, and an objective of the TIA and its respective stakeholders is to sustain and look for future growth. Getting more players involved and retaining them will go a long way in stabilizing and promoting growth in the sport. Another highlight shows tennis as being the fastest growing traditional sport in America over the past decade, up 46% 2000-2010. In 2010, participation decreased by 7.6% after reaching a high in 2009 (TIA, 2011). As not to continue that declining trend, the ITF and other major bodies felt they needed to react. The figures presented by the TIA are promising; however, retention is still poor and is ultimately the most important statistic for stakeholders of tennis. Coaches form a vital role in the development of players on all levels. In light of this information, tennis and other sports have stepped up their efforts to provide better education to their coaches through adopting coaching courses that have the most updated coaching information and matching educative resources (Crespo, McInerney, & Reid, 2006).

Coach education programs are vital to keep the modern day coach abreast of the latest developments from a knowledge and expertise point of view (Crespo *et al.*, 2006). In light of this fact, and due to its massive influence of coaches worldwide it becomes imperative to determine the quality of service of coach education syllabi of the ITF. The ITF's coach education syllabus has 3 levels: starter-beginner, intermediate, and then advanced. For the

purpose of this research, I will be doing a quality of service evaluation of the ITF's Starter-Beginner course. The ITF defines a Starter-Beginner coach as a "*coach who is able to effectively and safely coach players of this level of play on his own and may work under supervision reporting to more qualified coaches and, if needed, supervise assistant coaches*" (ITF, 2009: 2). To put this quote into context, it is only fitting to also define what a Starter-Beginner tennis player is. The ITF defines a Starter-Beginner player as "*the one who has just been introduced to the game, and/or has a limited playing and competitive experience and a basic level of play*" (ITF, 2009: 2).

The rationale behind choosing the ITF's Starter-Beginner course is ultimately two reasons. The first is the tremendous impact of coaches working with starter-beginner players, and the second is the evaluation of the recent implementation of the modified rules into the ITF's coach education syllabus. The main objective of the modified rules version of tennis is to retain more players in the game (ITF, 2012a). This particular research could potentially provide important information to the ITF on how to better assist coaches training starter-beginner tennis players. It could be argued that the future of the game of tennis lies in the coach at the starter-beginner level providing the appropriate learning environment to impact players to stay in the sport. Considering the importance of the ITF's Starter-Beginner course in retaining players, a thorough investigation is required; as to date, no research has been done. The method adopted by this research is to conduct a quality of service evaluation which explores the gap between expectations of the coaches prior to taking the course and at the end of the course to see if their expectations were met in terms of service quality.

Service quality has been defined as "*the consumer's judgment about a product's overall excellence or superiority*" (Zeithaml, 1988: 3). The term quality has been an interest to managers and marketing academics more recently and has received more attention from service marketing researchers in the last 15 years (Dhurup, Singh, & Surujlal, 2006). Information on service quality is somewhat in its developmental stages; however, significant growth has been seen focusing on recreation and sport as a result of the concerns over wellness, changes in lifestyles and work pressure (Dhurup *et al.*, 2006). The customer's perception of service is important to the success of the service industry (Dhurup *et al.*, 2006). When considering service in the context of sport, it can be very complex as it often takes place over an extended period of time and has many influential factors. Some of the factors

that could influence the quality of service include inter alia, the aesthetics, functionality, layout, facilities and staff interaction (Dhurup *et al.*, 2006).

Research on service quality of sport services has accelerated over the past two decades. Measuring service quality has been used in sports such as gymnastics, martial arts as well as recreation and fitness centers (Perez *et al.*, 2010). In terms of quality of service, the fitness industry has benefitted from much research recently. The reason behind this is the growing demand of people wanting a healthier lifestyle. This comes not only from the individual, but also from a business sector point of view. There have been many tools used to quantify service quality in fitness organizations including both general and industry specific measures. A common practice to assess level of service quality is an instrument called SERVQUAL (MacIntosh & Doherty, 2007). SERVQUAL has been used widely in the financial and commercial sector and has also been used with adaptations in fitness and leisure center management. SERVQUAL is a multi-item tool used to evaluate the service expectation-perception gap of the dimensions of reliability, responsiveness, assurance, tangibles and empathy (MacIntosh & Doherty, 2007).

Since the SERVQUAL model in service quality evaluations and that previously no service quality assessment made on coach education courses, dimensions and sub items will be presented that will form the basis of two questionnaires and a gap analysis achieved of the ITF's Starter-Beginner course. Dimensions of reliability, responsiveness, assurance, tangibles and empathy are associated with the SERVQUAL model. These dimensions will be used in the evaluation of the quality of service of the ITF's Starter-Beginner Coaching Course.

The connection between tennis coach education courses and service quality stems from the fact that one of the objectives of starter-beginner players taking up the sport of tennis is from a "get fit perspective". Tennis coaches provide a product to the consumer in a form of tennis lessons. The quality of that lesson depends largely on the coaching knowledge of the coach. Coach education courses provide an opportunity for a transfer of knowledge to the tennis coach. The amount of transfer of knowledge that coach education courses deliver are unknown. Leaders of coach education courses should want to maximize transfer of knowledge of their coaching courses. Therefore, in order to improve the delivery of starter-beginner courses, a quality of service is needed to see if changes are required to the syllabi to provide a better service to the starter-beginner coach. Improved service would naturally result

in better retention of players and in turn a better future for the sport. Considering research of coach education courses has not been published before, the findings of this particular study could bring much insight and form the basis of future research.

1.2 PROBLEM STATEMENT

In order to have a thriving business tennis coaches on all levels, need to keep players in their program. Coaches who tend to have the most influence on the game of tennis are Starter-Beginner coaches. Starter-Beginner coaches are coaches who work with starter-beginner tennis players. The first impression that any aspiring tennis player has of the game could ultimately predict their future participation. Usually the first introduction to any sport is through a coaching lesson (Gilbert & Trudel, 2004). The quality, therefore, of coaching that Starter-Beginner coaches produce in their lessons will have a significant bearing, not only on their own program, but also the game of tennis. It may be assumed that Starter-Beginner coaches should be proactive in making sure they have the right skills to coach tennis players. This would entail attending a course presented by the National Tennis Federation. Unfortunately, this is not the case as the image of tennis coach education courses is somewhat negative; participants of courses are of the feeling that they are not receiving the required knowledge (McCullick, Belcher, & Schempp, 2005) to deliver high quality service tennis coaching.

Research to date has proven a positive influence between quality coach education courses and a coach's confidence and efficiency (Vargas-Tonsing, 2007). Considering the globalization of sports, including tennis, coach education and the demand for qualified coaches has been on the rise (Vargas-Tonsing, 2007). In light of this information, tennis has stepped up its efforts to provide better education to their coaches through adopting coaching courses that have the most updated coaching information and matching educative resources (Crespo, McInerney, & Reid, 2006). Santos et al., (2001) have concluded that the quality of coaching has a direct relationship with the success and satisfaction of its participants and ultimately in turn their willingness to stay in the sport. There has been a change in focus by researchers in coach education from coaches' behaviours and performance towards thoughts and knowledge that form the basis of coach's actions (Gilbert & Trudel, 2004). Many developed tennis federations have established their own unique models of coach education and certification to ensure that those individuals working with a country's top young players are employing both current coaching practices and working with these players with a methodology and

philosophy that is player centered where the health and well-being of the athlete is put first (Crespo *et al.*, 2006).

The International Tennis Federation (ITF) is the world governing body of tennis and is responsible for overall development of the game worldwide. Its structure comprises of five departments: Presidential and Communications, Commercial, Finance and Administration, Professional Tennis, and Tennis Development. The Tennis Development department benefits from the Grand Slam Development Fund, a fund comprising of equal donations from the four grand slam nations: Australia, France, Great Britain, and the United States of America (ITF, 2011).

ITF's development department's objective is to help developing countries grow the game. Tennis is known as a sport that is very good at attracting players to the sport, however, very poor at retention (USTA, 2008). Therefore, if the ITF could get coaches to coach starter-beginner tennis players in such a way that would entice them to stay in the sport, this would go a long way in guaranteeing the game's future. One of the ITF's development programs is the availability to developing countries of a coach education syllabus, should they not already have one in place. A large majority of developed countries have their own curriculum and, therefore, do not require the ITF's assistance. Currently, there are 80 nations that use, in some form or other, the ITF's coach education syllabi (Miley, 2011). The ITF, therefore, influences a great number of coaches worldwide by way of developing countries' use of the ITF's coach education syllabi. It is for this reason that the ITF's coach education syllabi should be cutting edge in coach education design, ultimately to fulfill its objective of developing the game worldwide.

A major component of participation in the sport of tennis falls on the shoulders of the tennis coach. In most cases, the first port of call of any interested starter-beginner tennis player is the coach. Research has shown that the quality of coaching has a direct relationship to the success and satisfaction of its participants and ultimately their willingness to stay in the sport (Santos *et al.*, 2001). Although quality of coaching is not the only intervening variable in the continued involvement in tennis, it is recognized as a significant contributing factor to the development and retention of players (Santos *et al.*, 2001, Misener & Danylchuk, 2009). Evaluating quality of service of tennis coaches' courses as a service, therefore, becomes fundamental to the sustainable development of tennis as a sport.

The development of sport coaches from an educational point of view is a complex process that requires not only an individualized program, but in many cases random learning pathways (Nelson & Cushion, 2006). Random learning pathways look at adapting the learning requirements according to the coaches' profile. Coaches take on many different profiles, such as volunteer, part-time, full time and have different needs when it comes to coach education. They also have different levels of understanding and also teach different levels. Therefore trying to match up the coaches teaching level, playing background, amount of time to spend on coach education, amount of money they wish to spend, and the level they are going to teach lends coach education program to be fluid and have random entry and exit opportunities. It is the requirement of leaders of coach education syllabi to recognize this and to comply with the demands of the coach as they play a critical role in tennis participation and retention. Misener and Danylchuk (2009) justify the importance of the coach when they say, "*Coaches are influential figures in the social, physical, psychological and emotional development of athlete*" (Misener, & Danylchuk 2009: 1).

The requirement for effective coach education certification programs is becoming increasingly important worldwide for many reasons (McCullick *et al.*, 2005). First, the number of children who participate in youth and interscholastic sport are increasing dramatically (McCullick *et al.*, 2005). In addition, female participation, older people playing sport, and newer sports forms are also on the increase which has created a demand for more qualified coaches and sports instructors, thus making the education and certification of coaches essential, particularly at the entry level (McCullick *et al.*, 2005). Most of the developing countries using the ITF coach education syllabus have a policy that all coaches need to be affiliated and certified in order to coach. Ensuring that all coaches go through the certification system, the need for coaching courses particularly at the developmental level to transfer the appropriate knowledge to the coaches in order to retain players is paramount.

In order to increase the retention of players in the game of tennis, it becomes important that an acceptable quality of service is required of the coaching courses providing the knowledge to coaches working with starter-beginner tennis players. Should the transfer of knowledge be maximized at the coaching course level, this could in turn help the coach retain players in their program and assist the game of tennis.

1.2.1 RESEARCH PROBLEM

In order for tennis coaches to provide quality instruction that facilitates attracting and retaining players in their program, the appropriate knowledge needs to be delivered when they take coach education courses.

Students who learn tennis through the modified rules game are able to accelerate their learning of the game; therefore, tennis coaches need to be familiar with these teaching methodologies. Students are able to learn quickly as the activities that are given through modified teaching methodologies are skill appropriate. If coaches are able to identify the level of the student and then give tasks according to the student's level, the student will achieve success which will enhance the confidence and enjoyment of the student. Having a student that is having fun will contribute to their retention in the game and willingness to learn the skills of tennis. For the coach this is an important objective as with more retention of player, they earn more income, which in turn helps the image of tennis. Hence the need for more coaches to gain and implement the coaching knowledge of modified rules game.

The ITF provides their first level coaching course to eighty countries worldwide, therefore, having a significant impact on coaches learning how to coach the game of tennis. Should these ITF coaching courses not provide the right transfer of knowledge in giving the coaches the right skills to attract and retain players in their program, would it have large ramifications on the future of the game? Considering the ITF's overall influence in their coach education syllabi, an evaluation of their first level course is required.

In making sure that coaches starting off their profession as a tennis coach have the appropriate amount of knowledge in establishing a viable business, an evaluation is required of the first coaching course they take. A service quality evaluation will be made of the ITF's first level course (Starter-Beginner coaching course) in making sure that there is the right amount and the relevant transfer of knowledge to provide coaches in the work place the right methodologies to attract and retain players in their program.

1.3 RESEARCH QUESTION

How do tennis coaches who participate in the International Tennis Federation's Starter-Beginner Coaching Course value the service quality of these courses?

1.4 AIMS AND OBJECTIVES OF THE STUDY

Primary Aim

The primary aim of this investigation is to assess satisfaction of tennis coaches with service quality of the ITF's Starter-Beginner course.

Secondary Objectives

- Evaluate the expectations of service quality of tennis coaches attending the ITF's Starter-Beginner course.
- Determine the actual satisfaction with service quality of tennis coaches attending ITF's Starter-Beginner course.
- Identify gaps between the expectations and the coaches' experience of ITF's Starter-Beginner course.
- Make recommendations to the ITF on potential changes to the ITF's Starter-Beginner course to facilitate service quality of courses to retain tennis players and coaches.

1.5 RESEARCH METHODOLOGY SUMMARY

More detailed information will be given on the research design and approach in Chapter Four. This section merely gives an overview on the research methods employed to achieve the results of this research. This research is described as a descriptive study using a mixed method to obtain and interpret the data. Mixed method is described by Creswell (2009) as a study that uses both quantitative and qualitative methods of research. The quantitative part of this study used two questionnaires to measure the quality of service of the participants of the International Tennis Federation's (ITF) Starter-Beginner coaching course. The first questionnaire is a pre-course expectations questionnaire, and the second a post-course satisfaction questionnaire. The SERVQUAL model was applied in this research. Two questionnaires measured expectations of a tennis coach on the quality of the Starter-Beginner course as well as actual satisfaction with the course. The SERVQUAL model is commonly used in researches when desiring to obtain a quality of service evaluation. The SERVQUAL model consists of five dimensions of quality: assurance of user, empathy of service provider,

responsiveness of service deliverer, tangibles, and reliability of service. For each dimension of the SERVQUAL model, sub-items are identified that link into the dimension in giving more information to ultimately assess the quality of service. In total for this research, 19 sub-items were identified over the 5 dimensions.

Once approval was given for this research, contact was made with the ITF's Coach Education Department to identify courses to be used for data collection for this research. In trying to get a widespread sample from a geographical point of view and the language of delivery of course, the following courses were chosen: South Africa (Africa), St Lucia (Caribbean), Vietnam (Asia), and Seychelles (Africa). Three continents were included in the sample. The ITF Coach Education Department provided copies of the researcher's invitation letter, consent letters of the questionnaire and interview, and both questionnaires to each country in the equipment dispatched for each course.

In order to obtain the expectations of the participants of the course, the first questionnaire, the pre-course expectations questionnaire, consisted of two parts. This questionnaire was given to each participant who consented to be part of the research at the beginning of the course. The first part asked for the profile of each coach, and the second part requested the participants to rate their importance to the 19 sub items on a Likert scale from 1-5.

After the course, each participant was given the post-course satisfaction questionnaire which also had two parts. The first part asked each participant to grade their level of satisfaction relative on a Likert scale from 1-5 to the same 19 sub items of the expectations questionnaire. The second part of the questionnaire also requested the participant's participation in the qualitative part of this study, a personal interview. The questionnaires were handed back to the Head Tutor after completion of the quality of service questionnaire. The Head Tutor then mailed all completed questionnaires to the researcher for analysis and interpretation.

Upon receiving the completed questionnaires, analysis was made and personal interviews were scheduled. From the 96 participants of the four courses, 56 agreed to be part of the data sample, of which 8 consented to be part of the interview section of this research. Contact was made with 8 coaches to schedule an interview. An even representation of 4 males and 4 females were used. Each interview took less than 30 minutes. All information taken in the

questionnaire and interviews were analysed and interpreted and presented in the research findings of this study (Chapter 5).

1.6 LIMITATIONS OF THE STUDY

The research was limited to the coaches who participated in the four courses identified as the sample for this research (South Africa, St Lucia, Vietnam, and Seychelles).

From a data collection point of view, even though the sample of 56 participants is acceptable, a large number of questionnaires were not used because the questionnaire was not filled out properly. It was not possible to go back to the participants as respondents completed the questionnaires anonymously. This could have been avoided if closer attention to detail was taken by the Head Tutor, particularly in the sample from South Africa where 11 participants' questionnaires were discarded.

1.7 OUTLINE OF THE STUDY

Chapter One, an introduction of this research, gives information on the orientation of the study, problem statement, summary of research methodology, and limitations of the study. Chapter Two analyses the quality of service including discussion of quality of service models that have been used when making a quality of service evaluation, and giving examples of sport specific quality of service evaluations that will put this research into context. The third chapter does the same as Chapter Two but from a coach education perspective. Previous research on coach education courses is presented focusing on the developmental level, at the same time as linking in terms such as player development, reflection, and cognitive structures into coach education. Chapter Four goes through the methods used in this research to obtain the data required to make a proper evaluation of the problem statement. Chapter Five interprets the data and discusses those interpretations. Chapter Six discusses the conclusions of the study, recommendations, and implications for further research.

1.8 CHAPTER CONCLUSION

This chapter sets the scene for this investigation by giving the orientation to the topic, presenting the problem statement, and describing the purpose and objectives. It also gives an overview of the research methodology and limitations to the study. The following chapter will give detailed background information into service quality.

CHAPTER 2

QUALITY OF SERVICE

2.1 INTRODUCTION

In the last two decades, the idea of service quality has gained more attention in all sports and recreational literature (Chang, Lin & Hwang, 2005). Service quality has been referred to as the difference between the expectations of each service dimension and what the consumer perceives to receive from them (Shonk, Carr & De Michele, 2010). Parasuraman, Zeithaml and Berry (1985) defined service quality as a “*global judgment or attitude relating to the superiority of a service*” (Ko, Alexandris & Theodorakis, 2011:16). Likewise, Bitner and Hubbert (1994) proposed that service quality is “*the consumer’s overall impression of the relative inferiority/superiority of the organization and its services*” (Ko *et al.*, 2011:77). Service quality has also been defined as identifying the difference between what is expected from each of the service dimensions and what the consumer perceives to receive from them (Ko & Pastore, 2007). Service quality has been linked to customer satisfaction (Shonk & Chelladurai, 2008), customer loyalty (Zeithaml, Parasuraman, & Berry, 1990), improved profitability (Grönroos, 1990), value (Laroche, Ueltschy, Shuzo, & Cleveland, 2004) and repurchase intention (Shonk, Carr, & De Michele, 2010). The main purpose of this study is to obtain the expectations of tennis coaches attending the International Tennis Federation (ITF) Starter-Beginner Course and on completion of the course compare levels of satisfaction with levels of expectation. This concept of obtaining expectations and comparing it to levels of satisfaction conforms to the essence of service quality. The beginning of this chapter looks at the significances of service quality in business. Before the conclusion of the chapter is discussed, sport specific service quality evaluations are given.

2.2 SIGNIFICANCE OF SERVICE QUALITY IN BUSINESS

Quality of service has traditionally been linked with business products and has occupied the interest of marketing academics and managers alike. Recently, in the past 15 years, attention given by service marketing researchers has increased (Dhurup, Singh, & Suruljal, 2006). Presently, service quality has been emphasized by many corporate and marketing strategies; and high levels of services rendered are identified by organizations to obtain competitive advantage and differentiation (Dhurup, Singh, & Suruljal, 2006). Making available services that result in satisfied customers will generally improve profitability for any organization that runs in a consumer market (Murray & Howat, 2002). Recently the business sector has increased their interest in quality management, a term that has become universally known and

applied in a practical setting to all areas of management in organization and businesses in the service sector (Nuviala, Grao-Cruces, Perez-Turpin & Nuviala, 2012). This comes as no surprise as determining customers' perceptions of service quality is relevant in explaining the competitiveness and feasibility of organizations (Nuviala *et al.*, 2012). In determining customers' perceptions of service quality, customers' experiences can be analysed, which is important when introducing any type of system directed at improving efficiency and efficacy and at increasing customer loyalty. Customers are becoming more demanding; and with it, their loyalty has become one of the most important accomplishments of any organization (Nuviala *et al.*, 2012).

Customer satisfaction refers to *“the consumer’s fulfilment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption related fulfilment, including levels of under- or over-fulfilment”* (Oliver, 1997:13). Even though consumers' quality is relevant to characteristics of services with a standard based on ideals, satisfaction is an evaluation of the overall attributes of services aligned on their expectation and actual experience (Oliver, 1997; Parasuraman, Zeithaml, & Berry, 1990; Ko & Pastore, 2007). Researchers' increase in interest on service quality is also justified by the influence of service quality on customer satisfaction. It is commonly accepted that service quality has a direct influence on customer satisfaction. A customer with positive perceptions about service quality is more than likely to have high levels of satisfaction (Kouthouris & Alexandris, 2005).

Research in the services marketing literature has revealed that customer satisfaction is closely linked with positive behavioural intentions and customer loyalty (Theodorakis, Alexandris, Rodriquez, & Sarmiento, 2004). Some researchers in the service marketers industry have explored consumers' cognitive and affective responses to the perception of service attributes in trying to benefit by meeting customers' requirements in an effective and efficient way (Koo, Hardin, McClung, Jung, Cronin, Vorhees, & Bourdeau, 2009). Perceived service quality and consumer satisfaction are considered crucial constructs in the area of service marketing as they lead to the development of consumer loyalty (Koo *et al.*, 2009). Therefore, an understanding of consumer perception of service attributes and its effect on satisfaction and perceived service quality are important to the success of service organizations. A productive approach for evaluating or improving service quality is to identify what has been labelled as targets of service quality or dimensions of service quality. Quality seen in the

dimensions of a service can be put into a benefits package, which is a “*clearly defined set of tangible (goods-content) and intangible (service-content) attributes the customer recognizes, pays for, uses or experiences*” (Koo *et al.*, 2009:63).

Research shows that perceived service quality is determined predominately by the tangible elements of the facilities and by the attitude and skills of the staff; however, recent research has also taken into consideration certain aspects of employee-customer social interaction as not as important, putting more emphasis on various tangible elements (Nuviala *et al.*, 2012). Irrespective of the determining elements, it is consistently noted that service quality has a direct influence to customer satisfaction (Murray & Howat, 2002; Shonk & Chelladurai, 2008) which then in turn has a bearing on the future intentions of current (Murray & Howat, 2002; Shonk & Chelladurai, 2008; Westerbeek & Shilbury, 2003) and potential customers (Nuviala *et al.*, 2012). Perceived value, a variable influenced by service quality and price, has been defined as an important factor mediating between service quality and customer satisfaction and has an important role in customers’ future intentions (Murray & Howat, 2002). The combined and positive effect that these three constructs (quality, satisfaction and value) have on customer behaviour and service loyalty have been researched and proven (Nuviala *et al.*, 2012).

Zeithaml and Bitner (2003) gave their own interpretations of service quality as a global judgment or attitude involving superior service. Service quality is perceived to be a multi-dimensional concept. Many models have been presented to give more understanding of the concept both in business and sports. Service quality has been related to customer satisfaction, customer loyalty, improved profitability, value and repurchases intention (Shonk *et al.*, 2010). Evidence has shown that should the customers’ perceptions of service quality be positive, their behavioural intentions will be positive, which is good for any organization. On the other hand, when service quality is perceived to be negative, customers’ behavioural intentions are negative. Within the concept of behavioural intentions components of purchase intention, word-of-mouth communication and paying a price premium to the company are associated (Kouthardis & Alexandris, 2005). In marketing and service literature, service quality has been widely studied and is most significant. Service quality has also been defined as a comparison of the customer’s expectations about real service performance. Over the past few decades, considerable research has been done on service quality because

consumers' perceptions can affect loyalty and behavioural intentions, which can be detrimental to the success or failure of the organization (Suh & Pedersen, 2010).

In a study conducted by Parasuraman, Zeithaml, and Malhotra (2005), service quality influences customer satisfaction, loyalty, and behavioural intentions. Other researchers have also determined that customer satisfaction relates to customer attitude, which is then in turn linked to behavioural intentions. Perceived service quality has, therefore, been positively linked to customer satisfaction as an antecedent factor (Suh & Pedersen, 2010). Service quality in terms of the dimensions it represents consists of specific tangible and intangible attributes of which the customers can relate. The customer ultimately pays for, uses or experiences these dimensions. When considering this, there are several descriptions of quality dimensions and how they relate to the different components of the sport industry the researchers are trying to quantify. Gronross' (1984) two-dimensional model consists of technical quality and functional quality while Lehtinen and Lehtinen (1991) included process quality and outcome quality. Lehtinen and Lehtinen (1991) also proposed a three dimensional model of physical quality, interactive quality, and corporate quality (Shonk & Chelladurai, 2008). Service quality models are important instruments that need to be created and used to make service quality evaluations. It is for this reason more in depth research has been done and presented later in this chapter.

2.3 SIGNIFICANCE OF SERVICE QUALITY IN SPORT

In a sport context, a service encounter can be very complex for the reason that it can take place over a long period of time and can be influenced by a wide variety of factors. Factors that are associated with affecting quality of service in service setting include aesthetics, functionality, layout, facilities and staff interaction. Considering service management is largely different from product management. Research has shown that in the presence of the customer in the service production, service management distinguishes itself from product management (Lentell, 2000). The vague and intangible nature of service quality results in difficulty for both public users of a service and researchers to define and evaluate quality. Service quality is difficult to quantify and measure. Although researchers have studied service quality for several decades, no conclusions have been on the conceptualization of service quality (Cronin & Taylor, 1992). Most researchers point to four characteristics: intangibility, heterogeneity, inseparability, and perishability, which identify a service from a physical product (Smith, 1990). These extensively mentioned attributes penetrate any kind of

service, including sport and recreational services. Understanding the intricacy of service, therefore, lends itself to obtaining a clearer understanding of its attributes. First, dissimilar mainstream business products, sport and leisure service are intangible and highly subjective. In an attempt to limit uncertainty, buyers look for signs or evidence of service (Lentell, 2000, Zeithaml & Bitner, 2000). Second, although goods are first produced then sold and consumed, services are first sold then produced and consumed simultaneously. The personnel involved in the production, such as administrator and instructors, are also consumers simultaneously. Third, quality of service performance is varying and irregular, and, therefore, changes from one service organization to the next (Kotler, 2000), which leads to non-standardisation of a health and fitness centre's outcome. Fourth, services cannot be kept and stop to exist the moment they are formed. Marketers of service industry are unable to keep an inventory of their service for later use, particularly during peak demand (Du Plessis *et al.*, 1995). Sport and leisure service does not have a shelf-life; therefore, service needs to be right the first time. Last, in health and fitness, services cannot be counted, but only experienced or perceived while produced in a facility, which complicates measurement attempts, as the sport experience is associated with emotional attachment and identification. Consumers may identify with and become attached to specific brands, instructors, or health clubs (Parkhouse, 2005, Dhurup *et al.*, 2006). These facts support the underlying nature of sport as a service and as a product. Trying to define and quantify service in a sport setting is somewhat difficult and, therefore, requires a model. Tennis coaching as a business is providing a service; therefore, staging coach education courses need to be of high quality to allow each coach to have the right knowledge to deliver high quality service oriented lessons. These attributes as a coach will attract and retain more tennis players in the game.

Service quality had not been associated with the sport industry until the late 1980's (Ko & Pastore, 2005). The onset of this method of quantifying sport service quality ultimately relates to the decisive factor of the development of the organization. In order to quantify such an exercise, knowing the dimensions of the sport service is crucial as this will provide the feedback on the areas required for improvement (Perez, Minguet & Freire, 2010).

Currently, sport are a competitive business. In 2009 the value of the sport industry was estimated to be between US\$480 and US\$620 Billion (Collignon & Zygband, 2009) and is expected to continue to grow. Gronroos in 1992 already pointed out that the sport market has

become more competitive and that management has changed their focus from productivity and profit to consumer well-being. For modern-day sport managers, the buzzwords became service quality and customer satisfaction. In order to be competitive in a flooded market environment, a sport organization is required to increase customer satisfaction through providing high quality services. Ideally, this could improve customer retention and promote overall success to the sport organization (Ko & Pastore, 2007). An important aspect of any sport organization in achieving success is its ability to retain customers. Customer loyalty is seen as an essential benefit of service quality and maximizing customer satisfaction as it is speculated that it costs five times more to attract a new customer than to retain existing customers (Park & Kitn, 2000; Park, 2003).

Numerous areas of the sports industry (e.g., professional sport, fitness programs, leisure and recreation) have been involved in research that has done a service quality evaluation. Although these researches has provided a foundation for understanding service quality within sports, researchers are still to agree on how to conceptualize service quality in recreational sports (Ko & Pastore, 2005). Early research completed by Chelladurai, Scott, & Haywood-Farmer (1987) identified five dimensions of fitness services determined by a Scale of Attributes of Fitness Services (SAFS). Later Kim and Kim (1995) evaluated sport service quality using thirty-three items involving eleven dimensions. Howat, Absher, Crilley, & Milne (1996) developed the Centre for Environmental and Recreation Management-Customer Service Quality (CERM-CSQ) scale to measure services in sport and leisure services. Chelladurai and Chang (2000) identified a framework for understanding quality in sport services. Last, Papadimitriou & Karteroliotis (2000) presented a four factor model with 24 items (Dhurup *et al.*, 2006). More detail of quality of service models design and examples will be presented later in the chapter.

Caliskan (2009) mentions that sport organizations are structured and run differently than other types of businesses; however, they are no different in their requirement to assess quality on an on-going basis (Larson & Steinman, 2009). Competition between sports organizations promotes different strategies to improve customer satisfaction (Morales, Hernández-Mendo, & Blanco, 2005) which is not as difficult to accomplish when it is evident what expectations the customers have and what they think is important in terms of service quality (Tsitskari, Vernadakis, Tzetsis, Aggeloussis, & Costa, 2009). Although it has been late coming (Martínez & Martínez, 2008), the sports industry is a developing competitive sector

(Rial, Varela, Rial & Real, 2010) that has taken upon this trend towards quality. Furthermore, although it is at a similar level as in other sectors and economic fields (Martínez, 2009), assessing quality in the sports industry is still in its developing stages (Tsitskari, Tsiotras, & Tsiotras, 2006) and is requiring more research (Martin & O'Neill, 2010; Nuviala *et al.*, 2012).

On review of the literature, evidence revealed research of service quality in sport services for rugby (Bisschoff & Lotriet, 2009), water sports (Langviniene & Sekliuckiene, 2008), skiing (Kyle, Theodorakis, Karageorgiou, & Lafazani, 2010), golf (Lee, Kim, Ko, & Sagas, 2011), athletics (Unruh, Unruh, Moorman, & Seshadri, 2005), indoor cycling (Sanz, Redondo, Gutierrez, & Cuadrado, 2005) and active tourism sports (Shonk & Chelladurai, 2008). Other research analyse the quality perceived by spectators at sport events (Westerbeek & Shilbury, 2003; Nuviala, *et al.*, 2012). A large percentage of research has focused on evaluating service quality in sport centres (Tsitskari, *et al.*, 2006), either public (Yildiz & Kara, 2009) or private (Rial, *et al.*, 2010), except in schools (Nuviala, Tamayo, Fernández, Pérez- Turpin, & Nuviala, 2011). The fact that different sports have been evaluated from a service quality point of view shows a consistent challenge in being able to quantify the service quality by management. A possible solution is to create a service quality model for each sport. Considering the previous numbers of service quality evaluations, this could be very difficult. Therefore, providing much frustration to managers, as the quality of service has a direct influence in the profitability of the organization.

The need to become and stay profitable as a sporting business has shown much relevance. Evaluating the services is part of the research from a sport perspective involving service quality. Sport and leisure services are intangible and highly subjective. Mostly, buyers are looking at identifying certain evidences of service. The difference between goods and services are that goods are first produced then sold and consumed; whereas, services are first sold then produced and consumed simultaneously. The delivered services by the personnel, like tennis coaches, instructors and administrators, are also consumed simultaneously. Due to the nature of services being rendered, performance is inconsistent and unpredictable and largely varies from one organization to another. Services are not able to be stored and finish their shelf-life as soon as they are created. Sport service marketers (for example, tennis coaches), therefore, are unable to keep an inventory of their services so they can be used during peak demand. Sport and leisure services do not have a shelf-life, the pressure for any

sport service organization to get the service right the first time is of utmost importance. Health and fitness services cannot be counted. These experienced or perceived sport services are produced in a facility, which makes it difficult to measure because the sport experience is often associated with emotional attachment and identification. Consumers of health and fitness services by nature become attached to specific brands, instructors, or health clubs (Dhurup *et al.*, 2006). In the same way, sport spectators become emotionally attached to a specific sport stadium or tennis players' emotional dependency on a particular coach.

The sport tourism industry has been heavily associated with quality of service because it is a service industry. Service quality is an important concept for organizations considering that research has shown that it is directly related to customer retention rates and higher profits for organizations (Kouthardis & Alexandris, 2005). Other terms have been created to give a better understanding of the service quality in sport and should be mentioned. *Servicescape* is a term created by Bitner (1992) to best describe the physical environment and the link it has with respondents' emotions and perceptions of overall service quality (Koo *et al.*, 2009). Wakefield, Blodgett, and Sloan (1996) defined the service environment in and around the sporting stadium as the *sportscape*. The research conducted by Wakefield *et al.*, (1996) focused on the fixed elements of the *servicescape*; in other words, the elements that do not change from event to event. These elements include layout accessibility, facility aesthetics, seating comfort, electronic equipment and displays, and facility cleanliness (Westerbeek & Shilbury, 2003).

With the definition of service quality and the background established from a business and sport point of view, it is only fitting that the models associated with service quality are identified and explained. Models are instruments used by researchers to ultimately be able to quantify service quality. Considering the concept is relatively new in terms of assessing service quality in sports, there are many interpretations on how models should be established and used. Putting into context of this study, ultimately a service quality model is required to study and evaluate the quality of service of the International Tennis Federation's (ITF) Starter-Beginner course by its participants. The main premise of this research is to investigate how the ITF's Starter-Beginner course can best assist coaches conduct high quality tennis lessons to attract and retain more tennis players in the game. As the ITF is the governing body of tennis worldwide, the need to retain players constitutes a significant objective for the organization. A component of the ITF's work to develop tennis worldwide is by providing

coaches' syllabi to its member nations. A large percentage of the countries that look to the ITF for such coach education assistance are developing countries that do not have a formal tennis coach education program in place. Currently the ITF makes their coach education syllabi available to eighty countries worldwide. Taking into account the number of countries using the ITF's coach education syllabi, logically one can conclude a large number of coaches worldwide are taking their first level coaching certification through the ITF coach education system. The overall impact that this has is quite considerable as the ITF is very influential in training tennis coaches to produce quality tennis lessons, hence, the need to perform a quality of service evaluation in order to ensure the ITF is reaching its objective as an organization through its tennis coach education programs (ITF, 2012).

2.4 SERVICE QUALITY MODELS

As discussed in previous paragraphs of this chapter, there has been much research and inventions of models to quantify service quality in sport. Selected models will be discussed in the following paragraphs. Researchers universally are taking into account the dimensions associated with each sports entity to best evaluate the expectations and levels of satisfaction of the consumer. Each model has certain dimensions that researchers have identified that they perceive to be able to provide an appropriate evaluation of service quality. It is only fitting that relevant examples of models are explained to give the appropriate background on models associated with service quality. It is also appropriate to present examples of service quality evaluations completed in the sport industry to put this study into context. This section begins by putting the seminal SERVQUAL model into context, by giving background information and examples of its use or lack of usage. Three dimensional models are then presented to show a contrast to the SERVQUAL model application of five dimensions. Service quality models that have a presence in a sport setting are then explained. To show the developing flexibility that researchers are showing in the study of this field of service quality, some examples are shown where the researchers adapt a model which best suits the aspect of the sport industry they are evaluating.

2.4.1 Service quality models in general business

2.4.1.1 SERVQUAL Model

SERVQUAL model was developed by marketing researchers Parasuraman, Zeithaml and Berry in 1990 to evaluate service quality in the retail world. Their angle was to be able to evaluate customers' individual experiences to measure where they stood from the customer's

point of view. SERVQUAL is capable of measuring the strengths and weaknesses of customer contacts (Bauch, 2010).

SERVQUAL is based on the perception gap between received service quality and the expected service quality and has been used predominately for identifying consumer perception of service quality (Koo *et al.*, 2009). Being able to measure service quality involves evaluating the experience of the customer based on a comparison between the clients' expectations for service performance and perceptions of the actual service performance. If the clients' overall perception of the service exceeds their expectations for service performance, the business is meeting the service needs of the customer. If the perceptions of the service performance are below par, the business is insufficient in one or more areas of service quality (Bauch, 2010).

Being able to get tangible measurements of the expectations and perceptions of customers, in regard to the service they receive, is feasible by subdividing service into smaller defined parts. To begin, one should be able to measure both the outcome and process when evaluating service products. Outcome is defined as taking all the measures in getting the job done. Process is the transaction experience between the user and provider. Outcome and process are further divided into the Five Dimensions of Service Quality for statistical measurement in order to measure the different components of the service experience (Bauch, 2010). Originally SERVQUAL consisted of ten dimensions: reliability, responsiveness, competence, access, courtesy, communication, creditability, security, understanding the consumer, and tangibles. Later they were reduced to the five dimensions of tangibles, reliability, responsiveness, assurance, and empathy (Koo *et al.*, 2009). The reliability dimension of SERVQUAL relates to an organization's capacity to execute the service reliably and with precision. Assurance is a gauge of the employees' knowledge and their ability to portray trust and confidence. Tangibles are the organization's physical environment, such as facilities, equipment, and communication materials. Empathy describes the employees' willingness to give individualized attention to its customers. Finally, responsiveness evaluates the employee's ability to help customers and facilitate prompt service. Within each dimension, four or five sub items are commonly used to give further understanding of each dimension. The SERVQUAL model is a productive management tool as it provides a gap analysis between customers' expectations and customers' perceptions of the services (Kouthouris & Alexandris, 2005).

The SERVQUAL model is the instrument used mostly to measure service quality (Bisschoff & Lotriet, 2009; Larson & Steinman, 2009), however, with much criticism and advice on how to improve (Nuviala *et al.*, 2012). At a closer look at SERVQUAL, literature shows that the use of the model varies in different countries and cultures (Cronin & Taylor, 1992; Teas, 1993). Buttle (1996) confirms the criticism which stems from a number of related questions about the dimensionality of the SERVQUAL scale. In the recreational services setting, Taylor, Sharland, Cronin & Bullard (1993) argued that the SERVQUAL dimensions were unstable. This raises the controversy on whether SERVQUAL is a generic model applicable to all service industries or if each type of service needs a modified instrument (Dhurup *et al.*, 2006). Ko *et al.*, (2011) come to the defense of SERVQUAL by commenting that researchers have either adopted or modified SERVQUAL to tailor it to the services of the sport industry or made scales based on the individual characteristics of certain segments of the sport industry (Ko *et al.*, 2011). Through giving an understanding of the SERVQUAL model and its background in the retail industry and now its application in the sports industry, it would be appropriate to see how it is used in the sport setting. Following are some examples of the use of the SERVQUAL model in a variety of sport settings. Some examples give a positive impression of the model and some not so positive.

2.4.1.2 SERVQUAL Model Used in a Sport Setting

2.4.1.2.1 Kouthouris and Alexandris (2005)

A consistent area of research when it comes to service quality lies in the area of linking the positive influence of service quality to customer satisfaction. Kouthouris and Alexandris (2005) wanted to test this fact in their research focusing on outdoor games in Greece. Basically the objective of the study was to examine the extent to which outdoors customers' satisfaction levels and their intention to continue with the program was based on service quality evaluations using the SERVQUAL model. Two hundred and eighty seven individuals participated in this study. Questionnaires were completed before and after each client's outdoor activity. The first set of data measured the participant's expectations of the experience while the data after the experience measured their quality perceptions, satisfaction and behavioural intentions. The reason for two sets of data was to be able to see if any gaps arose in the customer's service quality evaluations. The SERVQUAL model was used using the standard 5 dimensions and 22 sub-items; adjustments were made to cater to outdoor activities. In terms of the participant's expectations, the results achieved by this research

showed that the assurance dimension had the highest mean score followed by reliability and empathy respectively. Tangible dimension received the lowest score. The data collected after the activity and relating to the participant's perceptions of service quality, the empathy dimension, received the highest mean score, followed by responsiveness and assurance. Tangible dimension again received the lowest score. More specifically from a gap analysis point of view, the customers were satisfied with their outdoor experience. A regression analysis was conducted to obtain the link between predicting satisfaction from service quality and behavioural intentions from service quality and satisfaction. In both incidents the regression model was not statistically significant. The authors' conclusion was that the SERVQUAL model is not effective in their research of outdoor programs, which puts further criticism on the claimed universality use of the SERVQUAL model when it comes to service quality evaluations. Behavioural intentions and satisfaction in outdoors cannot be predicted by service quality evaluations. The researchers suggest that a different model be used and more research into the factors that influence satisfaction levels be done (Kouthouris & Alexandris, 2005). This research brings a good foundation to this research of the ITF's Starter-Beginner course in that the same research methodology will be used. Similarly, questionnaires will be administered prior to the coaching course to obtain the expectations of the participants; and after the coaching course, the perceptions of the service quality is sought. The only negativity that this research brings to light is the criticism of the SERVQUAL model and the need by researchers to identify, test and use their own model in order to obtain the appropriate evaluation of service quality.

2.4.1.2.2 Dhurup, Singh and Surujlal (2006)

The research completed by Dhurup, Singh and Surujlal (2006) in their service quality evaluations of fitness centres in Gauteng province, South Africa is presented in this section to show the adaptability of researchers in their use of the SERVQUAL model. The analysis of previous research that has included the use of the SERVQUAL model gave rise to a growing concern of what researchers perceived to be a lack of availability of a comprehensive model to make quality of service assessments for all aspects of the sport industry. It was evident that most researchers started looking at the SERVQUAL model as a basis but then had to refine the observation in order to get a better evaluation (Dhurup *et al.*, 2006).

In the research of Dhurup *et al.*, (2006), a panel of three people was chosen based on their academic and administrative expertise in the sport and fitness industry. A questionnaire was

presented to them on all of the items the authors perceived to be associated with assessing quality of service by the consumer. Four items were removed and eight items reworked. The questionnaire was then sampled to 15 people who patronized health and fitness centres. From the feedback of the 15 people, the questionnaire was changed and reworked to reflect 59 evaluative statements on health and fitness service quality. The questionnaires were distributed, and 251 were used in the sample. The results of the research showed that there are eight dimensions of health and fitness service quality: personnel, programming and medical, convenience and information dissemination, functionality and layout, ambience and accessibility, facility attraction, safety and support, and membership. The authors proved their criticism of the SERVQUAL model when through their research they came up with eight dimensions and not the five dimensions which are associated with the SERVQUAL model. Of the eight dimensions presented, the most important dimension perceived by the members was personnel, which is not even a dimension of SERVQUAL. High on the agenda of the patrons of the health and fitness centres towards service quality were consistency in service, interest in progress of patrons, proper training and supervision, qualified instructors, staff assistance, ethical conduct, confidence and complaints handling. Overall, the dimensions presented by the authors provide a useful tool for management to use to evaluate their quality of service in the sports and fitness industry. The dimensions presented give managers a means to identify their strengths and weaknesses and create a plan to improve their quality of service that will in turn result in better financial viability of the organization even though the authors do realize that potentially the dimensions presented could be non-applicable to other countries (Dhurup *et al.*, 2006). The findings from this research and the fact that a quality of service evaluation was done in South Africa are very encouraging. It sets the scene for this research and gives it more validity. Another factor that provides more validity with their quality of service evaluation was that they first went about identifying a model that could properly obtain quality of service evaluation. Recognizing the scepticism with the use of models produced by other researchers, it was felt that a model needed to be designed that best suited a quality of service evaluation specific to both the aspect of the fitness industry and the population. It would be very easy to conclude that this is the main reason for the success of this research and its inclusion in this literature.

2.4.1.2.3 Samira and Nagla (2010)

The two previous examples of quality of service evaluations of Kouthouris and Alexandris (2005) and Dhurup *et al.*, (2006) showed the SERVQUAL model in a negative light; however, the study completed by Samira and Nagla (2010) gives a positive evaluation of the use of the SERVQUAL model in a sport setting.

An interesting study was conducted in Egypt by Samira and Nagla (2010) of the Egyptian Karate Federation. This study is interesting from the point of view that it replicates this research in a way that an analysis is being made of the effectiveness of a governing organization. Basically the study was trying to see by way of a gap analysis the perceptions of the beneficiaries of the Egyptian Karate Federation and the administration of the organization and then evaluate their experiences relating it to an overall quality of service. The main reason for doing such a study was that there was a perception of negativity of the federation and its capacity of providing a quality of service to its members. A random sample of 149 individuals was used and consisted of coaches, referees, players, and administrators of the organization. The SERVQUAL model was used in compiling the questionnaire of which the standard 5 dimensions and 22 sub-items were used. Unfortunately the results were negative; the federation as a whole was not providing a quality of service. The main reason for this was that the respondents felt that the Federation was not aware of their wishes and needs. The dimension that showed the biggest negative feedback was reliability of service. The respondents did not feel that the organization was reliable and able to conduct the federation's operations effectively (Samira & Nagla, 2010). It would be hoped that the results of the researcher's current study would not be the same for the sake of the ITF. However, potentially one could point the finger at the ITF for the declining tennis participation figures. One could also lay blame to the coaches for not being able to retain their clients. Previously, no quality of service evaluation of the ITF coach education syllabi has been completed before and due to that fact the wants and needs of the coaches are not known. If these facts are not known, how is the ITF or any organization for that matter to provide an overall quality of service?

2.4.1.2.4 Kyle, Theodorakis, Karageorgiou, and Lafazani (2010)

Kyle, Theodorakis, Karageorgiou, and Lafazani (2010) conducted a service quality assessment on ski resorts in the northern part of Greece. Specifically the goal of the study was to evaluate the effect of service quality on respondents' satisfaction and loyalty towards

two ski resorts in Greece. As what has been seen in previous research, the authors felt that the SERVQUAL method was not reflective and would not provide them with the most accurate data. Therefore, the researchers used a model of three dimensions, namely: interaction quality, facility quality, and outcome quality. Data was collected from 345 visitors at an identified ski resort over two weekends. In total, 15 items were chosen that spread over the three dimensions. The data collection and analysis recognized that all three dimensions had a positive influence on the customer's satisfaction with the ski resort, which in turn had a positive and significant effect on respondent's commitment as a customer although skiers of a higher level did not show too much loyalty as they would rather go to resorts that had better skiing conditions. However, it does pose the question on the service quality assessment as the amount and quality of snow is out of the control of resort management. This proved to be the weak factor in this study, the element of nature and its relationship to the resorts environment or what is commonly referred to in service quality terms as "*servicescape*". "*Servicescape*" is an unpredictable factor and is hard to make it a reliable construct on service quality (Kyle *et al.*, 2010). The evaluation of a ski resort is another example of choosing a profit based aspect of the sport industry in trying to ultimately make it more efficient and provide a better quality of service, which in turn will hopefully be conducive to creating customer loyalty. Customer loyalty is what all organizations strive; having repeat business will result in a more profitable business. For the ITF, this component of quality of service, in particular customer loyalty, is very much appropriate. The ITF understands its purpose when it produces coach education syllabi for member nations to use. The coach education syllabi need to adhere to the best and current coaching practices. By delivering a quality of service to all its participants who attend the ITF's coaching courses, one could conclude that coaches attending the course would reciprocate that same quality in their lessons. By the coaches completing the ITF Starter-Beginner course and inherently producing quality of service in their lessons, this would create this customer loyalty between the coach and client. If coaches were to have a certain element of customer loyalty with their clients, this in turn would go a long way in insuring retention of players in the coach's program. Retaining players in as many coaches' programs as possible would help the greater cause of protecting the prosperity of the game of tennis. This form of success could be traced to the original objective of the ITF in making sure their coach education syllabus provides a good quality of service.

2.4.1.3 Three-Dimensional models

2.4.1.3.1 Lehtinen and Lehtinen (1991)

Lehtinen and Lehtinen (1991) were the first researchers to come forth with a three-dimensional model which is obviously contradictory to the SERVQUAL five dimensional model. The dimensions they proposed were physical quality, interactive quality, and corporate quality.

2.4.1.3.2 Rust and Oliver (1994)

Rust and Oliver (1994) revealed a three-dimensional model (Tri-Component Model of Service Quality) of service quality including service product, service delivery, and service environment. This model was based on Grönroos' (1984) research which suggested that only two dimensions of technical quality and functional quality were needed when determining quality of service (Koo *et al.*, 2009). Rust and Oliver defined service product as the consumer's growing perception of the service and other features that come with the service (Ko & Pastore, 2005).

2.4.1.3.3 Brady and Cronin (2001)

A fourth three-dimensional model was developed by Brady and Cronin (2001) that consisted of interaction quality, physical environment quality, and outcome quality. It is obvious to see that when looking at these three-dimensional models that the dimensions overlap from a concept point of view, and the dimensions are very broad and do not tackle the specific conditions that would result in an appropriate service quality evaluation. For example, in both Lehtinen & Lehtinen (1991) and Rust & Oliver's (1994) research on service environment, both have facilities as one of their dimensions; however, what element of facilities should be included in order to be context specific is not clarified (Shonk & Chelladurai, 2008).

2.4.1.3.4 Park (2003)

Park (2003) conducted a study in Korea on the relationship between service quality and customer satisfaction and their influences on behavioural intentions of customers in relation to an apparent service problem within a ski resort context. The instrument used consisted of a three factor model. The dimensions identified and used were personnel, peripheral, and core services (Park, 2003).

All the aforementioned researchers felt a need to simplify their service quality evaluations. Instead of going with the five dimensions of SERVQUAL, they felt only three dimensions would be appropriate. However, with so few, would it be possible to obtain a detailed understanding of the service environment? Little mention is made on any development of sub-items within each model. Sub items give dimensions more meaning and more avenues for service quality research. It is without question that the researchers felt that three dimensions were sufficient and appropriate to get the best evaluation. Due to its infancy of making sport specific service quality evaluations, the logic of making a model specific to the service quality evaluation has much merit and would be conducive in making an accurate evaluation. This way of thinking seems to becoming quite popular with researchers. There does seem to be some consistency of using the SERVQUAL model as a basis for development of other models.

2.4.2 Service Quality Models and Evaluations in Sport Business

2.4.2.1 SAFS (1987)

Chelladurai, Scott, and Haywood Farmer (1987) felt their research was justified from the point of view that at the time of their research, enormous growth had been seen in the number and variety of private, profit oriented businesses which offered varying versions of sport/fitness/recreation services that indicated the continued promotion of fitness. It is anticipated that these sport organizations will prove to be successful and promote fitness. However, as a result of the growth of the fitness club industry has been recent, the details of managing service operations are not understood, in particular the marketing side of their services. According to Ziegler and Campbell (1984), administrators of sport organization started to realize that they need to generate marketing plans to sell their services and products (Chelladurai *et al.*, 1987).

The purpose of the research of Chelladurai *et al.*,(1987) was to develop a model that represented dimensions that would be able to measure fitness services. The authors explain the unique and overlapping concepts of several views on what services actually are and are presented in a comprehensive framework. In order to develop such a framework, the distinctive aspects of the fitness industry were taken into consideration.

The second objective of the study was to show if any differences existed between the groups of subjects who influenced their choice of clubs. Marketing experts all agree that at the most

detailed level, all buyers' requirements are different in some ways; on the basis of similarities and differences, such distinctive wants can be put into market segments (O'Shaughnessy, 1984). From this point the study tried to verify market segments defined by sex and marital status which differentially determined by the qualities of fitness services.

As another objective in relation to the aforementioned study, the authors wanted the development of a scale to measure the degree to which each dimension in the theoretical model influenced consumer's choice of fitness clubs. Overall, six dimensions of fitness services were identified: (a) primary core professional, (b) primary core consumer, (c) primary peripheral, (d) primary facilitating goods, (e) secondary consumer, and (f) secondary facilitating goods. The development of the Scale of Attributes for Fitness Services (SAFS), which measures consumer inclinations for service attributes of a fitness club, were carried out in three stages.

Stage One

In the first step, 66 questionnaire items in six subscales were generated to show the six dimensions of service attributes. One university fitness instructor, three professors of sport management, and six staff members of a commercial fitness club were requested to examine the items in the six subscales. Considering the suggestions of the experts, new items were generated, and those deemed to be weak were modified or deleted. In total, 71 randomly ordered items encompassed the initial version of SAFS, with the six service dimensions represented by 10-14 items.

Stage Two

The pilot study was conducted to verify the stability of the subscale structure of the SAFS. SAFS was administered to 178 members of five fitness clubs in a Canadian city. The researchers divided the subjects first on the basis of sex and then on marital status in order to best understand the market segments. Due to their very high correlations, there was no support to having six dimensions, rather having five dimensions with the dimensions of secondary consumer services and facilitating goods becoming one. Considering the item-total correlations and internal consistency evaluations, 40 items were selected to form the second version of SAFS

Stage Three

The newer version of SAFS was then used to collect 566 samples over 11 fitness clubs in a Canadian metropolitan area. The selection of the fitness clubs was entirely based on getting approval from the Club Manager. Due to mistakes in completing the questionnaire and having to be discarded, the sample was reduced to 436. Through analysis of the latest sample, it was proposed by the researchers that the five-dimensional model presented in their study incorporates the most up-to-date aspects of a fitness service and establishes a meaningful description of fitness services. From a practical standpoint, the adjusted and finalized SAFS model would help fitness club managers to design and market their service products. The only drawback in the establishment of this model was the fact that all analysis was confined to one Canadian metropolitan area. The authors suggested taking a larger selection of clubs over a number of different cities.

2.4.2.2 QUESC Model (1995)

Kim and Kim's (1995) aim with their research was to develop an instrument to measure service quality at fitness centres using the Korean market as a sample. The reason behind establishing an instrument in Korea stemmed from the fact that a fitness explosion was being experienced with more and more people wanting to join fitness centres. It came to a point that the demand exceeded the supply. This resulted in managers of fitness centres feeling that they were not concerned with attracting new business as they already had a thriving business due to the great demand of their fitness products. The researchers determined that the SERVQUAL model was not appropriate for sport centre evaluations because a) the dimensionality of the construct is dependent on the service industry being analysed; and b) with the use of the difference score, SERVQUAL measures satisfaction instead of performance.

In order to identify the dimensions for the instrument, the researchers established a focus group that involved seven people who had at least three months sport centre experience. The group included three students, three employees, and one housewife. The group was asked on what criteria they thought should be part of making a service quality evaluation. The initial QUESC instrument consisted of 45 scale list of items listed in pairs. Pairs were written separately in a two part questionnaire. The first part asked the question on the desirability of a

list of scale items, and the second part requested the respondents to evaluate the level of service.

In total, 350 questionnaires were distributed with 271 being returned. From analysis of the questionnaires and determining the internal reliability, the following dimensions were identified and provided an appropriate service quality evaluation of fitness centres in Korea. The dimensions are ambiance, employee's attitude, reliability, information-giving, programming, personal consideration, price, exclusivity, ease of mind, convenience, stimulation, and social opportunity (Kim & Kim, 1995).

In their study of Greek fitness centres, Papadimitrou and Karteroliotis (2000) did not support the QUESC model; instead they suggested a 4-factor model using instructor quality, facility attraction and operation, program availability and delivery, and other services. Questions need to be asked of the scale presented by Kim and Kim (1995) as it was designed for the Korean fitness centre market and would it be appropriate to use in other countries? The reason for doubt is that the focus of fitness centres in Korea are predominately geared towards younger adults where fitness centres in the USA, for example, are focusing on older adults (Lam, Zhang, & Jensen, 2005).

2.4.2.3 Sportscape (1996)

Wakefield, Blodgett and Sloan (1996) investigated the means on how stadium owners and administrators could assess how spectators see their sport facility in order to determine (a) if spectators are pleased/displeased with the stadium, (b) if any specific aspect of the facility influences their pleasure/displeasure, and (c) whether these perceptions influence their attendance intentions. With this knowledge, stakeholders would be in a better position to make decisions regarding retaining, refurbishing, or replacing the current facility.

Bitner (1992) recognized three primary dimensions of the "*servicescape*" which determine customer perception of the service provider and customers' consequent affective, cognitive, and conative responses. The dimensions include (a) ambient conditions, (b) spatial layout and functionality, and (c) signs, symbols, and artefacts. Bitner's (1992) "*servicescape*" framework characterized the hypothesized "*sportscape*" model. The three factors of stadium access, facility aesthetics, and scoreboard quality are likely to influence spectators' pleasure with "*sportscape*". Four factors of layout accessibility, seat comfort (directly) and

spaciousness and way finding signage (indirectly) dictate spectators' perceptions of crowding. Spectators' satisfaction with the sportscape influenced by perceptions of crowding is expected to directly influence spectators' wishes to stay and return to the stadium. In addition to establishing the relationships between the constructs, it also provides a basis of outlining the key elements of each factor that should be measured and evaluated by stadium management.

The authors created 10 hypothesized constructs that they wanted to test through this study.

They were:

- H1: Stadium accessibility will have a positive effect on spectators' pleasure with the sportscape.
- H2: The facility aesthetics will have a positive effect on spectators' pleasure with the sportscape.
- H3: The Scoreboard quality will have a positive effect on spectators' pleasure with the sportscape.
- H4: Perceived crowding will have a negative effect on spectators' pleasure with the sportscape.
- H5: Seating comfort will have a negative effect on spectators' perceived crowding.
- H6: Layout accessibility will have a negative effect on spectators' perceived crowding.
- H7: Stadium spaciousness will have a positive effect on spectators' perceptions of the layout accessibility.
- H8: The utility of wayfinding signage will have a positive effect on spectators' perceptions of the layout accessibility.
- H9: Spectators' pleasure with the sportscape will have a positive effect on spectators' desire to stay in the sportscape.
- H10; Pleasure with the sportscape will have a positive effect on spectators' intentions to patronize the sportscape in the future.

Multiple scale items for each sportscape element and desire to stay were built for the pre-test. This questionnaire was pretested at two major college football games in the South-eastern Conference (SEC). A useable response rate of 43% was obtained. Reliability analysis and exploratory factor analysis were used to refine and assess the scales.

Model estimation/refinement was done by combining the data collected during games at two more SEC games. One was done at a baseball game that received 46.7% response rate and the other at a football game that achieved 50.1% response rate.

The results of this study showed that the most important factor affecting spectators' pleasure within the sportscape is whether the spectators feel crowded or cramped due to lack of space of limited access. Additionally the other major sportscape aspect directly influencing customer pleasure was aesthetic quality of the facility. The study also showed that difficulties may exist if the parking access and availability is not able to accommodate customers, as the customers would likely not stay in the servicescape if they are not able to find space to park or trouble with getting out of the parking lot. Another factor influencing the consumers' pleasure with servicescape is scoreboard quality. This is because of during down time in the game, spectators view the scoreboard to get an update on the game.

The researchers of the SEC games offer a model in order to complete future service quality evaluations specific to *sportscape* and *servicescape*. Their recommendations which they call LISREL model is to 1) obtain questionnaire samples at several games, 2) make sure the survey is handed out randomly, 3) tabulate mean item or factor scores with common statistical programs, 4) compare item or factor scores to absolute scores and relative scores, 5) try and determine which factors are not factoring into the spectators' pleasure and satisfaction, and 6) facility management decisions based on results and other expert opinions (Wakefield *et al*, 1996).

It is through this research that more information is obtained on how to evaluate the sport stadium experience and what factors determine the customer's willingness to return. The authors have presented two concepts of *sportscape* and *servicescape* that will help managers of stadia to assess the service quality of their customers to ensure continued success of their organization.

2.4.2.4 Customer Satisfaction Scale (Alexandris and Palialia, 1999)

The Customer Satisfaction Scale (CSC) was originally developed by Alexandris and Palialia (1999) and then improved by Alexandris, Papadopoulos, Palialia, & Vasiliadis (1999). Alexandris and Palialia (1999) felt that due to limited published research in the area of

service quality in sport centres and its importance from a practical and theoretical point, they would conduct a study that looked at the dimensions of service quality in sport and fitness centres in order to establish an instrument for future research. Following a critical review of literature on recreational motives and satisfaction, a pool of 23 items were developed. In addition to the review of literature, 20 informal semi-structured interviews were conducted with sport centre managers and sport/aerobics instructors. The goal of these interviews was to find items specially related to customer satisfaction in the clubs. From these interviews, six items were added. This procedure resulted in a pool of 30 items. These 30 items were analysed by three expert judges in the field and five managers of sport centres. This process reduced the items to 27. The questionnaire was then distributed to three random private fitness centres in Thessaloniki, Greece of which 210 individuals responded. The questionnaires were then analysed, and the following dimensions were representative of the customer satisfaction scale created by Alexandris and Palialia (1999): Facilities/Programmes, Individual/Psychology, Relaxation, Social, and Health/Fitness (Alexandris & Palialia, 1999).

The refinement and improvement of the scale was established through a study conducted by Alexandris *et al.*, (1999) that sought to compare the customer satisfaction between five public and private fitness clubs in Thessaloniki, Greece. To best support the scale in trying to obtain quality of service of fitness clubs, six dimensions were identified: 1. Facilities/programme, 2. Staff attitude and competence; 3. Relaxation; 4. Intellectual; 5. Health/fitness; 6. Social (Theodorakis, Alexandris, Rodriguez, and Sarmiento, 2004). The six dimensions had acceptable internal consistency reliabilities and showed itself as an appropriate tool in measuring quality of service of fitness clubs.

An example that has used the customer satisfaction scale is a study of private clubs in Portugal conducted by Theodorakis, Alexandris, Rodriguez, and Sarmiento (2004). Assessment of quality of service of fitness and health clubs seem to be a common theme. It only seems logical that such organizations would conduct such research due to the continued growth associated with the fitness industry and the need to be competitive and profitable. The method of data collection was identifying 5 private health clubs out of a possible 13 health clubs in the city of Braga, Portugal. A questionnaire was administered to the members, and 426 samples were used in the analysis. Overall, the level of satisfaction was tested with the health club members. The authors perceived satisfaction from a four step process. The first step deals with the customer's pre-purchase needs and expectations about the performance of

the service. The second step involves customers generating expectations about the performance of the service. The result of the comparison between the perceptions and original expectations results in a perceived disconfirmation, which is deemed the third step and level of satisfaction. The last step analyses the performance of the service in terms of fulfilling the original needs and expectations, which in turn the outcome would be satisfaction. The need satisfaction scale used for this research included five dimensions: facilities/services, staff, relaxation, health/fitness, and social/intellectual. All sub scales used had good internal consistency. The results of this research revealed high means scores for the need satisfaction dimensions. Demographic evaluations showed that females were less satisfied than males in the facilities/services dimension while the more educated individuals were not satisfied in the facilities/services and social/intellectual dimensions (Theodorakis *et al.*, 2004). What can be taken away from this research is the interesting comparison between the expectations and level of satisfaction seen between male and females. There obviously seems to be a difference of opinion when it comes to quality of service between males and females. The idea of comparing and contrasting the levels of satisfaction between males and females is an interesting concept and was done with this particular research; however, no differences were noticed.

2.4.2.5 Chelladurai and Chang (2000)

In their research Chelladurai and Chang (2000), have proposed a framework of analysis of quality in sport services from three perspectives: targets of quality, standards of quality, and evaluators of quality. Targets of quality evaluation involves a) core services, b) facilities, equipment, and physical context the services are provided, c) interpersonal interactions in the performance of the service, and d) quality of client participation in the production of the service. A core service refers to the performance of the promised service and is also referred to as reliability, output quality, performance, or quality in essentials. Context covers the quality of the facilities, their location, the equipment and tools used in the production of the services. It is also the amenities made available to the clients. This dimension has also been referred to as tangibles, physical quality, completeness, or ease of use. Client employee interactions are basically the boundary between the service provider and the client, and the relationship that develops between the two parties. This dimension has also been termed quality in contact, interactive quality, assurance, or emotion. Making a service available requires some involvement by the client depending on the type of service. Normally in the sporting context, it is of an energetic and vigorous nature. Therefore, clients' perceptions of

the quality of their own interaction are crucial for continued participation in that activity. Client participation has also been labelled process quality (Chelladurai & Chang, 2000).

The previous discussion of the researchers' target of quality leads to the standards of quality. Much the same can be seen with targets of quality and standards of quality. In order to get a better understanding, they are broken up into a) quality as excellence, b) quality as value, c) quality as conformance to specifications, and d) quality as meeting or exceeding customers' expectations. Quality of excellence is best described as the investment of large sums of money and material and the employment of the best employees in the production and delivery of a good or service. Quality of value is evaluated by the relative price a customer pays for a certain level of performance. From a quality as conformance to specifications point of view, consumer needs and wants are transferred into clear specifications for the product as quality is determined to what degree the specifications were met. Quality as meeting refers to the customer's views of quality as they experience the service. This understanding is said to be more relevant as services are intangible and, therefore, not linked to strict specifications (Chelladurai & Chang, 2000).

The last dimension that the researchers wanted to establish in their framework to evaluate service quality is evaluators of service. Simplistically, evaluators of service are determining who out of all the stakeholders of quality of service should be evaluating the service. Therefore, who among the clients, service providers and managers should be evaluating the service? It is understood that within the standards that different parties to the service will be evaluating when different standards of quality are applied (Chelladurai & Chang, 2000).

2.4.2.6 SSQPS (2001)

Further understanding of the constructs of service quality can be seen through Ko and Pastore's (2001) use of the scale Service Quality of Sports Participants (SSQPS) that suggested four dimensions with a few sub-domains that include: range of quality (range of programs, time operations, information), interaction quality (customer interaction employee/customer interaction between customers), result of quality (physical and social change) and quality of environment (environmental conditions, design and equipment) (Perez *et al.*, 2010).

An example of the use of Ko and Pastore's SSQPS model was achieved by Chang, Lin, and Hwang (2005) when they looked at the service quality of the health and fitness industry in Taiwan. The commonality of using the health and fitness sector to assess service quality really shows first in the lack of confidence shown from a service quality point of view and second in the realization of how this industry has grown. Chang *et al.*, (2005) wanted to first validate the model they were using to find the perceptions of service quality in fitness clubs in Taiwan. The SSQPS model is comprised of four dimensions with each dimension having three sub-items. The dimensions are: outcome quality, program quality, interaction quality, and physical environment quality. Twenty sport/fitness clubs were chosen randomly out of 120 clubs of which 464 questionnaires were analysed. The results showed that all four dimensions presented in the model were usable constructs to obtain service quality of sport/fitness clubs in Taiwan. This example really proves the fact that models used in service quality are very important and become a viable tool in being able to make an appropriate service quality assessment (Chang *et al.*, 2005). The particular research discussed in this dissertation will not test to see whether the SERVQUAL model is the appropriate instrument to use in assessing quality of service of the first level coach education course of the ITF. Considering the history of the SERVQUAL model and it being one of the first and foremost referenced model used in service quality assessments, it was accepted as an appropriate model to make a service quality evaluation of the ITF Starter-Beginner coaching course.

2.4.2.7 SPORTSERV (2001)

Theodorakis, Alexandris, and Ko (2011) had a different perspective in trying to evaluate quality of service in the sports industry. They identified a need to research the quality of service perceived by spectators attending professional soccer games in Greece. Spectators provide a soccer organization a large source of income when attending soccer matches through ticket purchases, parking, and purchases of food and drinks. Delivering high quality service to the fans is crucial to the financial viability of a soccer organization. A previous study conducted by Dale, Iwaarden, Wiele, and Williams, (2005) proved that high quality services attract spectators to the stadium and thereby build customer loyalty and in turn helps the sport club's revenues. The authors used the SPORTSERV scale that was designed by Theodorakis, Kambitis, Laios, and Koustelios (2001). The scale comprises of 20 performance items representing the five dimensions of service quality: tangibles, responsiveness, access, security, and reliability. The researchers identified a professional football team in the Greek Super league. The team had a long history of performance at the highest level and a strong

fan base. The data collected only represented spectators of one team. In total, 600 questionnaires were distributed and collected of which 415 were used. A four item Likert type scale was used to measure spectators' perceptions of overall service. Results of this research showed that fan satisfaction was linked to different service aspects associated with attending a soccer match such as: facility design, aesthetics and functionality, reliability in the service delivery process, parking availability, use of mass transportation, and easy and fast arrival and departure from the stadium. Another finding was that the service quality dimensions used were proven to provide an accurate assessment of the Overall Service Quality (Theodorakis *et al.*, 2001). These findings support the fact that sport organizations that provide a service need to make quality of service assessments in ensuring they survive as an organization and ultimately provide the best service to its customers.

2.4.2.8 SSQRS (2005)

Ko and Pastore's (2004) quest to create an instrument to evaluate service quality in recreational sports stem from the recent and continued interest in service quality with sport organizations. The reasons for looking at service quality are founded on the basis that good service quality leads to customer satisfaction and loyalty, which both concepts are valuable to thrive as a sports organizations. Brady (1997) provided the key outcomes of increased levels of service quality, for example: (a) a higher than normal share of the market (Brady, 1997), (b) improved profitability relative to the competition (Grönroos, 1990), (c) consumer loyalty (Zeithaml, Berry, & Parasuraman, 1996), (d) the realization of a competitive price premium (Zeithaml *et al.*, 1996), and (e) an increased probability of purchase (Zeithaml *et al.*, 1996).

Sport organizations are facing a new age of global competition. Considering the saturated market of sport industries, the success of a sport organization is dependent on the satisfaction experienced by the customers from a quality of service point of view. From the sport industry point of view, service quality was not deemed as a major area of research until the late 1980's (MacKay & Crompton, 1988).

According to researchers, the best way to understand service quality is to focus on (a) how the service quality construct is conceptualized (i.e., the meaning), (b) which factors determine the consumer's perception of service quality (i.e., determinant), and (c) how to measure the constructs (i.e., measurement means) (Brady, 1997; Chelladurai & Chang, 2000). These areas promote further investigation in order to improve service quality research. Prior to presenting

their model of service quality, the researchers first discuss the concept of service quality followed by discussion of factors that have been identified in the literature (Ko & Pastore, 2004).

A multidimensional and hierarchical model of service quality was used to identify the factors that determine sport consumers' perceptions of service quality. The researchers hoped that the proposed model would help service quality research and improvement of sport organizations. Scale of Service Quality in Recreational Sports (SSQRS) is a model developed to assess participant's perceptions of quality in recreational sport programs. This model provides users with a valid and reliable analytical tool for the measurement of customers' quality perceptions (Ko & Pastore, 2005). Four dimensions make up the SSQRS model: program quality, interaction quality, outcome quality and physical environment, and follow the conceptual framework for the recreational sport industry. The SSQRS model was conceived on the basis of work of Brady and Cronin's (2001) and Dabholkar and his colleagues' (1996) hierarchical models of service quality (Ko & Pastore, 2005). Program quality is the first dimension of SSQRS which refers to the participant's perceptions about the quality of the program. Sub-items of program quality are range of activity programs, operating times, and dissemination of program give further understanding of this dimension. The second dimension of this model is interaction quality. Interaction quality is defined on how the service is delivered and explains the participant's expectations of the interaction that occur during the service. Sub-items of the interaction dimension are employee's behaviour, attitude, and expertise. Outcome quality, the third dimension, relates to the outcome of the service and what the participants receive. Simply put, this dimension sees participants evaluate the outcome of the service in terms of physical, social, and overall attitude of the service received. The last dimension is physical environment quality. Physical environment is the most important aspect when considering the participant's evaluation of service quality. Sub-items of physical environment quality include ambience condition, facility design, and equipment. A section of this model in addition to the four dimensions of service quality includes customer satisfaction. A participant obtains a service quality perception and level of satisfaction after each experience and becomes a loyal customer when highly satisfied with the particular service. With this in mind, it would make sense and be very important to assess customers' level of satisfaction. This is the primary goal of the last section of this model which is to assess the level of satisfaction (Ko & Pastore, 2005).

2.4.2.8.1 Example of SSQRS: Ko and Pastore (2005)

Ko and Pastore's (2005) study looked at assessing the service quality of recreational sport at an university in the USA. In as much as what is being stated by previous researchers in regard to the lack of availability of service quality models, the authors constructed their own model and named it The Scale of Service Quality in Recreational Sport (SSQRS). For future researchers of this field, having a model that is specific to their research would promote an accurate service quality assessment when making their evaluations of service quality. Through identifying experts in the field and a handful of recreational sport users, a total item list of 77 items was reduced to 49 items. Methods of obtaining the data included a convenient sampling method, shopping mall intercept technique, and directly administering the instrument to sport participants within the Department of Recreational Sports at a large university located in the Midwest region of the USA. Of the 261 returned questionnaires, 241 were deemed successful and analysed (Ko & Pastore, 2005).

The results of the questionnaire pointed towards an overall good evaluation of service quality through the use of the SSQRS model. The four dimensions (program quality, interaction quality, outcome quality, and physical environment quality) and sub items proved to be representative of obtaining a service quality evaluation of recreational sports. Of the dimensions mentioned, it was deemed by the participants that physical environment was the most important factor to the recreational sport users (Ko & Pastore, 2005). This creation of a model and then identifying the most important constructs within that model is conducive to obtaining the best possible service quality evaluation. It would be suggested that for future research, a model be researched specific to assessing quality of service of coach education courses.

2.4.2.8.2 Example of SSQRS: Shonk, Carr and De Michele (2010)

Shonk, Carr, and De Michele (2010) conducted research on how to examine service quality and identification within campus recreation programs. The reason for their research was to justify the importance of having a recreational sport facility that provides quality of service. Previous research has shown the positive effects of having recreational sport facilities that attracts more students, retain students, improve grades, promote wellness, student development, and satisfaction with academic experience. The National Intramural-Recreational Sports Association (NIRSA) in 2008 predicted that universities would invest \$3

Billion in the USA on new construction of campus recreational facilities (Shonk, Carr, & De Michele, 2010).

An electronic survey/questionnaire was sent to 20778 people of a large university in the Midwest region of the USA, of which the large majority were students. The response rate was 21% with 4302 people replying. The questionnaire consisted of 50 items of which 39 stem from Ko and Pastore's Scale of Service Quality in Recreational Sport (SSQRS) and three items from a modified version of Wann and Branscombe's (1990) team identification questionnaire. The remaining items were identified as being specific to the facility being used. The theoretical implications of the study suggest that identification serves as a mediator in the relationship between two service quality dimensions and customer satisfaction. Another finding of this research suggests that identification has a significant moderating effect on the relationships with outcome quality. Outcome quality is defined in terms of physical change, sociability, and valence. Program quality is best described as the range of programs, operating time, and ease of getting information about a program. Further findings of this study revealed that a significant interacting effect for identification in terms of program quality, such that identification is related to lower satisfaction. The findings of this study support the need for campus recreational professionals to look at their current customer service training outcomes and methods, program offerings, and marketing efforts. This study should help campus recreation management in identifying the need for marketing efforts to help sustain student identification with campus recreation programs (Shonk *et al.*, 2010). Overall, the main purpose of this study was to make campus recreation management aware of the importance of their program and at the same time make sure every effort is made to provide a good quality of service.

2.4.2.9 SQAS (2005)

The Service Quality Assessment Scale (SQAS) was developed by Lam, Zhang, and Jensen (2005) to evaluate the dimensions of quality service in health and fitness facilities. The reason behind this study was that the authors felt that the generic SERVQUAL model was too general and, therefore, did not provide specific feedback to management on operational matters. The SQAS model was created because an instrument was needed to be established in order to make an accurate evaluation of service quality in the fitness industry in the USA, as a result of the American public becoming more health conscious and using more health and fitness products. Corporate bodies were also seeing the benefit in making sure their

employees were healthier in order to make them more productive and reduce absenteeism. The need, however, in delivering an appropriate service quality was increasing in order to compete for newly created markets. The researchers were of the opinion that to obtain an accurate assessment of service quality, it was appropriate to design an instrument specific to the USA health and fitness market (Lam *et al.*, 2005).

Lam *et al.* (2005) initially started with 46 items and administered their scale to an identified health and fitness club. All 1500 members were given a questionnaire of which 234 actually completed the questionnaire. Through further refinement, they adjusted the scale to 40 items (six were omitted). The 40 item scale was then used to assess service quality at 10 health and fitness clubs of which 1202 members participated. After that study, 9 items were eliminated, and 6 factors emerged, namely: staff, program, locker room, physical facility, workout facility, and child care. Through their study the authors concluded that the SQAS model was an appropriate model to conduct service quality evaluation in a health-fitness club setting by using the aforementioned 6 dimensions (Lam *et al.*, 2005).

An example involving the SQAS model was conducted in Canada by Macintosh and Doherty (2007). The focus of this service quality assessment was trying to measure client member perceptions of organizational culture values and service elements of a large fitness provider that had five locations throughout Canada. The instrument used to measure the objectives was the same that Macintosh and Doherty (2007), had used on the company's staff perceptions of organizational culture on a previous occasion. The nine organizational values that were established by the researchers through consultation with the Chief Executive Officer and Chief Operating Officer of the company are: integrity, fitness, peak attitude, innovation, communication, performance, trust, care, and passion. The instrument also incorporated service elements present in the SQAS that included: ancillary services, memberships, front desk, programmes, equipment/workout facility, locker rooms, facility, and child care (Macintosh & Doherty, 2007).

One of its sport gymnasiums was identified to conduct this research for which a questionnaire was used resulting in 113 usable responses. Two dimensions of service elements and corporate values were used. Sub-items of the service elements dimension were: programmes, locker room, equipment, child care, membership, ancillary, and front desk. Corporate values were: dimension trust, integrity, fitness, peak attitude, innovation, communication, and

performance were evaluated. The research concluded that fitness clubs should provide top quality service such as exercise equipment, types of exercise programmes, workout facility and locker rooms. Areas identified that would result in improving the client's experience were location, staffing, and check-in procedures associated with the front desk. Another important finding was that the fitness clubs should recognize the potential influence on their organization's culture on client's attitudes and behaviour (Macintosh & Doherty, 2007). The observations of this research relating to organization's culture can be important potential findings for the ITF. Having a culture of wanting to be proactive and continually being perceived to wanting the game of tennis to prosper is an important component for a sport governing body.

2.4.3 Other examples of sport service quality evaluations

2.4.3.1 Murray and Howat (2002)

In order to get another perspective in terms of what researchers are doing worldwide, it would be appropriate to share Murray & Howat's (2002) quality of service study conducted in Australia. The researchers recognized that previously no research had been done on sport and leisure centres in Australia. Satisfied customers will generally improve profitability for any organization operating in a consumer market. This conclusion is usually based on the understanding that satisfied customers will most likely reuse or repurchase the service (Murray & Howat, 2002). Local governments have realized that sport and leisure services can be profitable and not be an empty money pit as long as they provide good service quality. The shift in mentality from the traditional community merit approach to the local recreation provision has been the reason for Murray and Howat's (2002) quality of service assessment. To see a government of a country realize the need to offer better service quality should be an eye opener to the ITF and any other governing body for that matter

A public sports and leisure centre in a capital city was identified to conduct the data collection for Murray and Howat's (2002) research. Randomly 372 questionnaires were handed out, and 231 were returned, of which 13 were discarded due to incomplete data. The results of Murray and Howat's (2002) showed that service quality is a direct antecedent of satisfaction, and that satisfaction is a strong antecedent of customers' future intentions in a sports and leisure context. Another finding supports the position that perceptions of value play a controlling role in the formation of satisfaction judgments of customers instead of satisfaction leading to perceptions of value. The practical value to managers of sport and

leisure centres in Australia and potentially worldwide is that managers should provide value to customers, possibly through a focus on the relational aspects of service quality. This finding is in conflict with McDougall and Levesque (2000), as they recommended a focus on core services. Murray and Howat (2002) also recommend that when managers do quality of service evaluations, they focus on obtaining information relating to what influences their customers' perceptions of value. This research drives home the message for sport organizations to obtain quality of service of their products and/or services. Governing bodies should be the front runners in ensuring all their products and services provide the ultimate quality of service and, therefore, setting a benchmark for other organizations to follow.

2.4.3.2 Shonk and Chelladurai (2008)

Sport Tourism is defined as leisure based travel that takes people temporarily outside of their home environment to participate in physical activities, to watch physical activities, or to partake in attractions associated with physical activities. Shonk and Chelladurai (2008) conducted a worthy service quality study on sport tourism. Their research proved to be interesting purely from the point of view that the sport tourism has become big business. Tourism in South Africa alone in 2012 increased by 6% from the year before to US\$34 Billion (UNWTO, 2012). The reason for its growth comes from two points of view. First, a general growth in discretionary income has provided consumers with more options in regard to their leisure and recreational activities. Second, cities have turned to sporting facilities to attract visitors and generate additional income to their community. Since the beginning of the 21st Century, local administrators have been looking to sport organizations to achieve economic and social development. Considering this vast development in trying to attract sport tourists to a city has warranted administrators to provide service quality to sustain growth. Shonk and Chelladurai (2008) are trying to provide the local administrators a model on how to evaluate quality of service in order to maximize sport tourism potential. Considering the many elements of sport tourism, the researchers thought it would be best to focus on spectators at an organized event. Dimensions proposed for this model include access quality (sub items of destination, sport venue, hotel), accommodation quality (sub items of interactions, environment, and value), venue quality (sub items of interactions, environment, and value), and contest quality (sub items of protest quality, protest quality); these were used as a model to assess the service quality of spectators at organized sport events (Shonk & Chelladurai, 2008). Shonk and Chelladurai's (2008) research provides more evidence of the need to establish a model appropriate to make an accurate evaluation of quality of service.

Another point that emerged from this research is the growing realization of service quality within the sport industry. Sport are showing steady growth from a financial point of view; and in order to protect its growth, appropriate quality of service needs to be conducted.

2.4.3.3 Koo, Hardin, McClung, Jung, Cronin, Vorhees and Bourdeau (2009)

Koo *et al.*, (2009) conducted research on the Minor Baseball league to identify which attributes of a service construct will best explain its quality and its impact on spectator habits by understanding the relationship between perceived service quality and spectator satisfaction. This particular study uses a three factor model of functional, technical, and environmental attributes as the dimensions of service quality to facilitate their research. Questionnaires using the three factor model were distributed over a six week period at South Atlantic League games during the 2005 season which resulted in 1787 usable questionnaires for data analysis (Koo *et al.*, 2009). Feedback from the questionnaires indicates that the most important service quality dimension was functional attribute followed by environmental attribute and then technical attribute. Perceived service quality is determined by spectator evaluation of service dimensions, some of which are technical, some functional, and some are environmental. Five recommendations resulted from Koo *et al.*'s, (2009) research that could be used by sport marketers. Sport marketers must understand all aspects of the sport experience of an event. Second, sport marketers should continually keep using the quality of home team, rival team or players to keep attracting and retaining spectators. The reason behind this is largely because a team's performance or outcome cannot be predicted. The third factor is that the organization should try and pay more attention to selecting, training, and matching their employees for service delivery. Fourth, sport marketers should have control over the environmental area of service quality. Last, sport marketers should develop strategies that are conducive to positive satisfaction assessments of the customer (Koo *et al.*, 2009). What is clear from the findings of Koo *et al.*'s (2009) research is that organizations should realize and identify with the desires and needs of the client.

2.4.3.4 Krinanthi, Konstantinos, and Andreas (2011)

Krinanthi, Konstantinos, and Andreas (2011) in their service quality assessment looked into the relationships between psychological constraints and service quality to see if there are any significant differences between males and females. A sample consisted of 972 sport intramural participants from 9 Greek universities. Two questionnaires were used. The first one administered was the Leisure Constraint Questionnaire that consisted of 22 questions.

The second one was the Service Quality Questionnaire that consisted of 26 questions. All factors of the Leisure Constraint Questionnaire were positive, meaning that students already participating in sports were not constrained. The factor of lack of time was the main reason given for not participating in sport due to student's academic schedule and other commitments. Overall, the students who did participate in gyms were satisfied even though the qualities of facilities were not as good as other European countries. The results did show that the students' desire to have sport and the quality of facilities are important factors in their recreation sport participation. In terms of gender differences, the one factor that separated them was that males required a partner to work out, where females did not require a partner (Krinanthi *et al.*, 2011). Similarities to this research that can be applied to the quality of service evaluation of the ITF's Starter-Beginner course can be the requirement for sport administrators to achieve good quality in their programs. Sport participants on all levels wish for quality; this is not surprising. As previously mentioned quality is what can also lead to better service quality and customer loyalty. The ITF and coaches need to strive for this quality in their programming. If the ITF can provide a quality coach education syllabi and the coaches who take the courses appreciate the quality and copy this in their coaching, this could constitute as a working team environment thus protecting the future of tennis.

2.5 CHAPTER CONCLUSION

The presented literature gives an appropriate explanation on how the quality of service that first started in the business industry has now evolved into the sports industry. The need for quality of service has its foundation from the point of view that in order to protect the growth of the sports industry, evaluations have to be done on a continual basis. Through the presentation of service quality models, one can see how the first generic models have now developed to more sport specific models and even in some cases specific to certain aspects of the sport industry. Even though it has been stated that the SERVQUAL model has its weaknesses, it was felt that considering its foundational role in quality of service evaluations, it would be used in this research.

The responsibility of the future of the game of tennis lies in the hands of the ITF. They are the world governing body of tennis, and this important aspect of making sure the game stays on a positive upward trend has landed on their shoulders and rightly so. Coaches form a crucial part of player development on all levels. Tennis has been seen as a sport that attracts players to their sport but is very poor at retention. A main attribute to the lack of retention of

players in tennis stems from the fact that tennis is a very difficult sport to master from the onset. Through the establishment and promotion of the ITF's Play and Stay Campaign that introduces a modified rules program, it would be hoped this elevates this scenario of poor retention. The modified rules program has been incorporated into the ITF's coach education teaching methodology. It has been introduced; however, no evaluation has been made to find out if the coaches are obtaining the appropriate knowledge to conduct this new form of training. This, therefore, establishes the need to conduct a quality of service evaluation and, hence, the need for this research.

CHAPTER 3

SPORT COACH EDUCATION

3.1 INTRODUCTION

Sport coaches' actions have a powerful influence on children's experiences in sport. These types of actions can positively influence children's self-esteem and degree of enjoyment they have with a sport as well as the resulting wish to continue participating in a sport. On the other side, undesirable coaching behaviours have been associated with several negative outcomes in sport, such as decreased sport satisfaction and higher rates of burnout and dropout. Coaching behaviours do not occur in incidents, but rather contextual factors give rise to types of behaviours that coaches exhibit in a sport setting (Sullivan, Paquette, Holt & Bloom, 2012). These type of factors as depicted by the authors Sullivan *et al.*, (2012) give foundation to identifying by way of sport coach education courses information that guide coaches in their actions to facilitate retention of players (Sullivan *et al.*, 2012). Better retention rates when it comes to players playing tennis for the first time could impact the game of tennis worldwide which is an important consideration to the International Tennis Federation (ITF). The purpose of this dissertation is to see how coach education courses impact participants from a quality of service point of view. Considering that coaches when taking their first course are coming in with a blank slate, it would be anticipated that their first course would be able to impact them in a positive manner by providing them with the appropriate knowledge to conduct a lesson that will retain more players in the sport. This is where service quality comes in and the need for coach education courses to provide that service quality to ensure appropriate transfer of knowledge to empower coaches to deliver quality lessons.

3.2 THEORETICAL FRAMEWORK AND RATIONALE FOR COACH EDUCATION IN SPORT

Sport coaching is highly dynamic and complex. Sport coaches need to nurture a wide range of skills and knowledge. In trying to promote this development, formal sport coach education programs have been organized in many countries around the world. Examples of extensive programmes are National Coaching Certification Program (NCCP) in Canada, the National Coaching Accreditation Scheme (NCAS) in Australia, and the American Sport Education Program (ASEP) in the United States of America (USA). These programs are very similar in the following characteristics: (a) being taught mainly in a classroom, (b) having different levels, and (c) having well-defined content for each level. Learning to coach in formal coach

education programs leads to acquiring a well-defined quantity of information that experts have identified as important in order to be certified. With this understanding, sport coach education programs have focused on acquisition learning metaphors where experts present information to their students who must then apply it to their own setting (Wright, Trudel, & Culver, 2007).

A broad range of demands are placed on sport coaches by individual athletes, the team or squad, the performance environment, and financial issues, which on their own or together can lead to a highly preoccupied coach. It is widely experienced that when coaches and athletes operate in stressful working environments, then coaches give significantly less support to their athletes. However, sport coaches are expected to possess diverse knowledge that ranges from physiology and nutrition to psychology and philosophy while also understanding key concepts of people management and leadership. The education of coaches when compared to other professions, few comparisons can be drawn. Due to a lack of research in the area of coach education, which can be attributed to the difference in theory, and practice that coaches' education programmes often represent. This difference in theory and practice contributes itself to an inefficient coach education structure (Stephenson & Jowett, 2009).

Gilbert and Trudel (2004) have emphasized that due to lack of research in the area of sport coach development, it has resulted in unstructured guidance for the advancement of coaches, in particular novice coaches. Coach pedagogy literature shows coach education programmes are a big contributor to a coach's knowledge base and development (Gilbert & Trudel, 2004). Erickson, Cote and Fraser-Thomas (2007) have proposed that formal coaching education could be more effective if tailored to meet the experiential needs of individual coaches, given their previous experience and current developmental stage. By tailor making tennis coaching courses to tennis coaches requirements, inheritably a quality of service would be achieved. Nelson, Cushion, and Potrac (2006) have proposed that coaches' learning comprises of three key dimensions: formal (e.g., coaching classes), non-formal (e.g. coaching clinics), and informal (e.g., athletic and coaching experience). Informal coaching experiences such as discussion and interactions with mentors, coaches, and players play an important role in a coach's development (Stephenson & Jowett, 2009). The aforementioned research is valuable to the aim and objectives of this study. As mentioned in Chapter 1 evidence shows formal coach education courses do little in the development of coaches is important feedback to take into consideration. However, the way to correct this is also important. It is the purpose of this

current study to reveal from a tennis coach's perspective what knowledge they would like to be delivered. Providing quality of service in tennis coaching courses could extend a hand in providing tennis coaches an appropriate pathway and knowledge in their coach development process.

A consistent finding across coaching literature is the influential role a sport coach plays in developing sport talent (Sullivan *et al.*, 2012). Although the coach's role will vary across culture, sports, and stages of talent development, appropriate direction from an effective coach seems crucial to becoming a successful athlete. Therefore, understanding the profile of coaches is needed so that the right support can be provided in facilitating and developing more effective coaches. Coaching effectiveness is defined by Cote and Gilbert (2009) in (Koh, Mallet & Wang, 2011:316), "*The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts.*" Knowledgeable, experienced, and educated coaches are in need of the necessary education and training to match the requirements of all participants in tennis in stages and at all ages. As coaches move through the various stages of development, research on the subject suggests that it could take four or seven stages to progress to the elite level (Koh *et al.*, 2011). The role coaches assume changes in relation to the coaching environment and performers. Sport coaches' ability to adapt stems from their experience in different sports, different coaching styles and competition. Traditionally formal coach education courses tend to be organized to attract large number of coaches and the content range from novice to expert. Coach learning consists of a mix of formal sources, such as coach education provision; and non-formal sources, such as informal sources. Informal learning mechanisms could be learning from experience through reflection and/or mentoring, but ultimately learning should be for the sole purpose of enhancing practice and to develop athletes or teams (Nash & Sproule, 2011). Previous reference has been made of different contexts and levels coaches face. This current study largely focuses on the first level of tennis coaching which the ITF refers to as a Starter-Beginner course. The reasoning behind focusing on the first level is that coaches at the developmental/first level have a crucial role in providing the best service to tennis players new to the game of tennis. Retention of tennis players is an important objective of all major stakeholders of the game of tennis. By having better retention figures, the game of tennis will be seen to be in a healthy position and its growth protected and guaranteed. This objective

could become more achievable if the ITF's first level coaching course provided an appropriate level of service quality.

An obvious task of a sport coach is to develop and improve the performance of teams and individuals while being involved in a multitude of distinct tasks. A coach usually has to develop a season's plan, improve techniques, skills and tactics for participation/competition, enhance all aspects of mental and physical preparation and manage the individual or team in competitions. To achieve this in an effective manner, a coach must utilize many different types of knowledge to solve problems and make decisions. Competition success requires the crucial ability to make fast and appropriate decisions. The way coaches move through the coaching continuum progressing from novice to expert needs to be studied in much detail. It cannot be assumed that novice coaches will progress to reach advanced levels as coaching knowledge does not accumulate in a linear manner. It is essential that the role of the coach is studied throughout their development in order to understand and discover what competencies and skills are needed at different stages of their careers. This implies that coaches need to be aware and have knowledge and understanding of learning theory, self-reflection, motivational climate and knowledge construction as well as the technical detail of their sport. Coaches also need to develop communication and decision making skills along with management and analytical proficiency, which challenges existing learning environments. Coaches need to be familiar with the construction of knowledge, a principle where learners make sense of their knowledge with emphasis on a quality supporting environment, reliance upon scaffolding, necessity for self-organization and promotion of deeper learning structures, thus reinforcing the concept of apprenticeship in coaching. A significant determining factor in the development of coaches is how they construct their knowledge. This important developmental trait of coaches would be very difficult to include within existing coach education programmes due to the length and delivery methods of the courses. Should this be identified as essential for coaches, more structured and lengthy initial coaching certificates would be needed. Therefore, this also puts forth a requirement to conduct an appraisal of coach educators and current coach education provisions. To be more specific, coach education leaders need to take note of the contextualization of content, the way in which coaches are enabled to develop and the monitoring of practical experience and assessment (Nash & Sproule, 2011). The above aspects of sport coaches and coaching courses are, therefore, applicable to tennis considering tennis is a sport. The required knowledge deemed to be needed by tennis coaches to facilitate the appropriate training of their tennis players is

substantial in nature. Particularly for a starter-beginner coach starting off with little experience and only playing experience, the necessary skills required to deliver lessons with a good quality of service would seem to be daunting. In order to best prepare starter-beginner coaches to conduct productive lessons, a service quality evaluation of tennis coach education courses is required. This way the appropriate method of delivery of tennis coach education courses could be obtained to maximize the transfer of knowledge to the participants of tennis coach education developmental courses.

Taking into account the increased importance of coach development and preparation and the corresponding increase in coach education programmes trying to fulfil this goal, an understanding of the acquisition of professional knowledge and coach learning is still in its early stages (Wright *et al.*, 2007). Research has shown that there has been more emphasis on personal and methodological interests of students as opposed to addressing the needs of the coaches from a learning perspective (Nelson *et al.*, 2006). It is important to better understand the nature of competent sport coaching in order to analyse how individuality and career experiences dictate coaching styles and personal beliefs about coaching (Wright *et al.*, 2007). Research on sport developmental coaches are as much needed and as valuable as research on elite/expert coaches; unfortunately, to date, researchers have been focusing mainly on the elite coach (Wright *et al.*, 2007).

The development of sport coaches from an educational point of view is a difficult process that requires not only an individualized program, but in many cases random learning pathways (Nelson & Cushion, 2006). It is the requirement of sport coach education syllabi to recognize this and comply with the demands of the coach as they play a critical role in tennis participation and the overall advancement of the sport. Danylchuk and Misener (2009:1) justify the importance of the coach when they say, “*Coaches are influential figures in the social, physical, psychological and emotional development of athletes.*”

The need for effective coach education certification programs is becoming increasingly important worldwide for many reasons (McCullick, Belcher, & Schempp, 2005). The number of children who participate in interscholastic sport is increasing dramatically. Increase in female participation, older people playing sport, and formation of newer sports promote the need for more qualified coaches; and sports instructors are required to help meet demand, thus making the education and certification of coaches essential, particularly at the entry level

(McCullick *et al.*, 2005). Another factor warranting the need for effective coach education programs stems from the National Tennis Federation's requirement to have at least gone through the first level course in order to coach at a tennis facility. By making this a requirement, a National Tennis Federation takes on the responsibility of making sure their courses are of the appropriate standard to impact coaches in the right way from a player development point of view. Should a National Tennis Federation not have tennis coach education syllabi in place, the ITF will allow a National Tennis Federation to use the ITF's syllabi which is an already established coach education syllabus that consists of three levels. This particular study will only be focusing on the ITF's first level Starter-Beginner course.

One can, therefore, conclude that due to the popularity and necessity of tennis coach education certification, programs for improvement should be studied and researched. If entry level tennis coaches are taking these coaching courses, the courses need to be of high quality and influence coaching practices (McCullick *et al.*, 2005). Research and practice-oriented discussion on the training and education of tennis coaches is crucial for the continuing development of quality programs that meet the needs of all parties as effectively as possible (Danylchuk & Misener, 2009).

3.3 AN OVERVIEW OF EFFECTIVE SPORT COACH EDUCATION PROGRAMME FRAMEWORKS

The ITF presents itself as a provider of tennis coach education services through its Development Department. Considering its coach education syllabi is used by 80 countries worldwide, it fits the profile as a large scale coach education provider. There are other organizations that provide equal or even far reaching coach education services and are mentioned in this section to put the ITF's profile in coach education terms into further context.

3.3.1 International Council for Coach Excellence (ICCE)

The governing body of Coach Education worldwide is The International Council for Coach Excellence (ICCE) which was established on the September 24, 1997, at the Coach Education Summit at the Wingate Institute in Israel by delegates representing 15 countries. When the organization was formed, it was named International Council for Coach Education and later changed to its current name of International Council for Coach Excellence. The ICCE has since grown to represent over 30 countries.

The objectives of the ICCE as a non-profit organization are:

- a. To promote sport coaching as a profession.
- b. To promote international relationships, social and cultural, with those who are engaged in coaching development.
- c. To promote sport and sport-values.
- d. To promote and utilize research in the field of training and competition.
- e. To exchange knowledge in the field of coaching.
- f. To disseminate information about curricula, qualifying standards among members.
- g. To co-ordinate coach education courses and resources across member countries.
- h. To promote a moral code in coaching.
- i. To improve relationships among Coach - Management - Athlete.
- j. To publish professional publications in the field of coaching and coach development.
- k. To encourage and to assist countries, in the field of coach development.

ICCE has four different types of membership: International Sports Federations, Organizations, Individuals, and Honorary members. The organization meets once a year and every second year hosts a Coach Conference (Coaching Association of Canada, 2013).

3.3.2 Canada (CAC/NCCP)

The Coaching Association of Canada (CAC) is the governing body for sport coaching in Canada and was started in 1970 due to recommendations made by the Task Force on Sport for Canadians. The CAC's aim is to bring together stakeholders and partners in trying to raise the skills and stature of sport coaches and ultimately spreading their influence and reach. Throughout its programs, CAC empowers coaches with knowledge and skills, promotes ethics, fosters positive attitudes, builds competence, and increases the credibility and recognition of coaches.

In 1974, CAC launched its National Coaching Certification Program (NCCP). Since it has first started, CAC has become a world leader in coach training and certification. Every year, more than 60000 coaches take a NCCP workshop; and since its inception, over one million coaches have participated in the program.

CAC offers three streams of coaching workshops. The first one is Community Sports Coach, targeting coaches who are already coaching at the community level or contemplating sport

coaching. The profile of people commonly taking such a course is a parent who has a child participating in a sport or a volunteer who works with participants of all ages who are new to a particular sport.

A second stream focuses on the competition coach. The profile of people participating in this course is a coach who has previous coaching experience or was a former athlete. They typically coach a team at the regional or provincial level, and the athletes coached are into long term training with the objective of performance.

A third stream focuses on the instruction coach. Participants in this course require sport-specific skills and training, whether coaching at the beginner or advanced skill level. Most participants are in a particular sport (Danylchuk & Misener, 2009).

3.3.3 Australia (NCAS)

The National Coaching Accreditation Scheme (NCAS) was started in 1978 as a progressive coach education program. The aim of the NCAS is to offer sport education and a nationally recognized qualification to Australians coaching sport at all levels. NCAS courses use competency based training principles and comprise assessment of a sport coach to ensure they have met the required standards for each level of coaching.

Before 2003, the NCAS presented courses at Levels 1, 2, and 3, in addition to a High Performance Award. Due to a review of the NCAS in 2002, a major change was introduced and National Sporting Organizations (NSO's) had flexibility to dictate their own accreditation structures that include number and type of accreditation levels. This led to a change in delivery of general coaching principles in the new system. ASC still provides general coaching principles modules that are now optional for NSOs to include within their NCAS programs. The only requirement of the NSO is that coaches should meet the minimum competency standards for their entry level accreditation to make sure minimum standard of competency is set for coaches across the NCAS.

NCAS provides a framework for NSOs in their delivery of sport coach education programs in Australia, therefore, providing a set of standards for the development of coaches for each sporting code (Australian Sports Commission, 2005).

3.3.4 United States of America (ASEP)

Having done much research on the psychological aspects of youth sport and recognizing the need to improve amateur sport in the United States, the American Sport Education Program (ASEP) was founded by Rainer Martens in 1976 with the specific aim to improve education of coaches. Currently education programs for officials, sport administrators, parents, and athletes form part of the ASEP educational agenda (ASEP, 2013).

In 1981, Martens designed and presented the first ASEP course, which centred on coaching philosophy and the foundation principles of sport science, sports medicine, and sport management. By 1986, ASEP had 1400 certified instructors who in turn had trained more than 50,000 coaches. In 1994, ASEP included educational programs and resources for volunteer coaches, officials, parents, and sport administrators of community youth sport programs, national youth sport organizations, and military and faith based sport organizations (ASEP, 2013). In 1990, The National Federation of State High School (NFHS) Sport Associations partnered with ASEP to make available high school versions of ASEP's popular *Coaching Principles and Sport First Aid* courses. Up until 2006, the NFHS and ASEP worked closely with state high school activities to implement these courses as required education, at which stage the partnerships ended. Currently ASEP is working directly with state high school associations, state departments of education, individual school districts, and national governing bodies of Olympic sport in delivering ASEP Coaches Education Programmes to more than 20,000 sport coaches a year (ASEP, 2013).

Much of ASEP's work has been directed towards educating high school and advanced club sport coaches. Educating volunteer coaches has been and remains a major objective. ASEP's Coaching Youth Athletes course for volunteer coaches was started in 1981. Later in 1990, ASEP started a series of Rookie Coaches Guides, which later became the Coaching Youth series, which were an instructor guide and instructional video to make it easier for youth sport administrators to impact coaches. During the 1990's, ASEP developed a series of videos to go with the texts to illustrate the teaching of technical and tactical skills of a sport. Numerous sport agencies have taken on board ASEP's Volunteer Coaches Education Program courses; however, three factors have prevented widespread use: money to purchase the courses, lack of administrator's time to teach the courses, and the logistical challenge of bringing volunteers together for face-to-face instruction. To counter this, in 2003, ASEP began releasing Coaching Youth Sport series of courses online which solved the program of

coaches' travel expenses and taking the time of busy youth sport administrators (ASEP, 2013).

ASEP in sport coach education has made a major impact over the past 30 years and have touched more than 1 million coaches through its courses. ASEP does realize that their work is not complete, and there still remains many sport coaches and administrators who could benefit from their education (ASEP, 2013).

3.4 GENERIC BENCHMARKS OF EFFECTIVE SPORT COACH EDUCATION PROGRAMMES

An analysis of coach education programmes offered in the aforementioned national frameworks produced a number of benchmarks for good practice. The following benchmarks have been identified and elaborated due to their significance to coach education, and provide further insight into tennis coach education programming.

3.4.1 Reflection

Practising reflection can lead to more self-aware coaches. Coaches develop more inclusive and practical sessions as they are more aware of their own values and beliefs. Irrespective of the benefits of reflective practice in coaching, research has shown resistance to its use because it is time consuming and not applied properly (Stephenson & Jowett, 2009). Knowles, Borrie, and Telfer (2005) have emphasised that reflective practice should form an integral part of coach education and training. This provides important practical information for the education of coaches and advancement of coaching as a profession (Stephenson & Jowett, 2009). The justification to include reflection as good practice is a result that the ITF does not have it as one of their competencies, and coaches participating in the service quality evaluation of the ITF's Starter-Beginner coaching course will have to use reflection when filling out both questionnaires, as they have to reflect on what they see important for the first questionnaire and then reflect on the quality of service they received for the second questionnaire.

Nelson and Cushion's (2006) study on reflection in sport coach education focuses on a National Governing body coaching certificate. The researchers concluded that there is a need to evaluate the impact of coaching courses on coaching knowledge and practice. Nelson and Cushion (2006) defined four conditions that influence reflection: (a) access to knowledgeable

peers, (b) stage of learning, (c) coaching scenario, and (d) environment. Understanding how these four conditions influence the experiential learning process is important in helping coaches develop their coaching repertoires. It is unlikely that sport coach education programs will be as inclusive as teacher education or professional preparation programs knowing that sport developmental coaches do not have the time for the many contact tutor sessions associated with this form of education. For example, most teacher education programs consist of four years of university coursework and practice teaching; whereas, most sport coach education programs last a few weekends. Tennis has largely taken this method of offering courses as tennis coaches are occupied during the week with their lessons and only have weekends free to attend sport coaching courses. The vital role, however, that starter-beginner coaches play, as a result they learn most of their knowledge in a practical setting, warrants the need to analyse the way coaches learn and find more effective ways to facilitate learning (Nelson & Cushion, 2006). The work done by Nelson and Cushion (2006) from a reflection of coach education point of view can be taken and used to the advantage in this particular study. Although the ITF is an international sport governing body and the work done by Nelson and Cushion (2006) focused on a national body, similarities can be drawn by way of an analysis of a controlling body of coach education. Further support for the need to include reflection in coach education is evident in Gilbert and Trudel's (1999) investigation of effective sport coaches. The way the coaches were using reflection during and after the coaching sessions; enabled them to develop a model of experiential learning based on reflection (Gilbert & Trudel, 1999).

Importance of self-evaluation and peer evaluation should be promoted to help sport coaches learn through reflection. Comparative methods can be obtained to collect qualitative and quantitative data from athletes and coaches to assist in the reflection process. Coaches should be encouraged to use reflective strategies to problem-solve coaching issues and in turn promote personal and professional growth. Mentors and coaching communities can assist the reflective process and can guide the learning opportunities (Koh *et al.*, 2011).

In their study on reflection in sport coach education Nelson and Cushion (2006), piled on more criticism on coaches' education courses; it was felt that these courses present coaches with largely de-contextualized learning by having practitioners coach one another. The researchers continued to point out that although sport coaching courses provide an opportunity to undertake practical coaching experiences, coaching peers are not likely to

reflect the coaches' coaching context and will, therefore, cause a wide range of coaching issues and responses (Nelson & Cushion, 2006).

In this research at hand, particularly in the second questionnaire, the tennis coaches partaking in the coaching courses used reflection to evaluate the quality of service of the course, hence, the reason to define reflection as it gives more meaning to the results of this research. It is envisaged that tennis coaches use reflection on a regular basis without consciously being aware of it, however, it is important that they are mindful of its importance to tennis coaches' development and its frequent application in coaching.

3.4.2 Cognitive structure

MacDonald, Cote, and Deakin (2010) conducted a study that looked at differences of athletes from a personal development point of view comparing training by coaches who had been part of a sport program with no formal coach education training and coaches who had formal coach education training. The two hypothesis developed by the authors concluded that first personal development was higher for athletes who were trained by coaches of the sport program. The second hypothesis, which anticipated perceptions of task climate to be higher for athletes of coaches of the sport program, was not supported as athletes in both research groups did not differ significantly on their perception of such a climate (MacDonald *et al.*, 2010). The findings of increased personal and social skills from coach training show that coaches can positively impact sport participants without formal training. The number of years of experience in the sport and the number of years spent in a sport program were higher for athletes of untrained coaches and could have contributed to the lower scores on personal and social skills (MacDonald *et al.*, 2010).

The research of MacDonald *et al.*, (2010) supports the fact that sport coaches do not only learn through structured certification programs, but also by way of informal means such as interacting with other coaches. The coaches in MacDonald *et al.*, (2010) research discussed positive sport development in coach meetings and through mentoring with other coaches, it can be concluded that informal learning is beneficial. Trudel and Gilbert (2006) have reported that informal sources of learning are common for most coaches. By tackling issues of positive development in meetings and through conversations with more experienced coaches, coaches, therefore, obtain that required knowledge that can translate into positive outcomes for sport participants. Coaches are fully aware that promoting principles of positive development is

important; however, many reports are lacking appropriate information on how to do so (Trudel & Gilbert, 2006). The results of Trudel and Gilbert (2006) show that this can be done on the program level between experienced coaches and program coaches. These results are also in line with the findings of Petitpas, Cornelius, Van Raalte, and Jones (2005) and Fraser-Thomas, Côté and Deakin's (2005) proposal that caring adults play an important role in sport programs that promote the development of positive psychosocial skills in sport participants. It should be said that intervention programs that provide coaches with formal training focus on personal development have been successful. The informal training proposed in this research can be used as an alternative if resources are not available for formal training (MacDonald *et al.*, 2010). The study conducted by MacDonald *et al.*, (2010) unfortunately does not give positive feedback on the importance of formal learning in coach development. It does, on the other hand, provide important findings regarding the influence of informal learning in coach development. Trying to match up the different ways coaches learn and the knowledge of coaching that needs to be transferred by coach education courses is a big challenge. This concept of coach's cognitive structure in some ways is similar to perception in the way that the amount of cognitive understanding and comprehension of the participants depends on their playing experience and education. Understanding the different types of learning situations that are currently being delivered is relevant in improving coach education courses, as the syllabus, therefore, can be tailor-made more towards the coaches' desires and needs (Erikson, Bruner, MacDonald, & Cote, 2008).

Providing a useful outline for contrasting the nature of different sources of knowledge, coach learning occurs via two different mechanisms: acquisition and participation. Consequently, coach learning from a certain source of knowledge within an identified situation is transferred through the use of one mechanism or the other. In the acquisition metaphor, learning is transferred from the teacher to a student. A practical example of this is when the tutor explains the technique of a stroke without any visual cues. This has been common practice of learning with current formal coach education programs. In the participation metaphor, learning is transferred through practical engagement specific to the coaching context. An example of participation metaphor is when the tutor explains the technique of a given stroke and then gives the participants an opportunity to practice what the tutor has just taught them. This active engagement might be encouraged in both individual experiential learning and more social means, such as mentoring or communities in practice (Erikson *et al.*, 2008).

Nelson *et al.*, (2006) categorized sport coaching learning as formal, non-formal, or informal. Formal coach learning is planned around a core curriculum, and candidates must show an understanding of the knowledge delivered by the tutors to achieve certification. Non-formal learning situations, for example, conferences and clinics, consist of structured educational activities outside the formal system for the purpose of providing select types of learning to particular subgroups and not essentially leading to certification. From a tennis perspective, this practice is often used by National Tennis Federations when they host coaches' workshops. Informal coaching learning situations are directed by the coach based on personal experience and activity in the respective sport environment (Nelson *et al.*, 2006). In a tennis context, informal learning is not widely applied as there is not much communication between coaches due to competition factor of tennis coaching. Often coaches are very protective of their clientele and business and are always nervous to share ideas with other coaches as they are scared of these ideas being stolen and used to the benefit of the receiving coach. The best example of informal learning is during staged tennis events where coaches talk and discuss their best practices. For the purpose of sport coaches' education design, it is important to understand the different forms of learning to combine the feedback of the participants in the course and match the preferred learning method. This could go a long way in identifying the potential quality of service of the ITF's Starter-Beginner course. Ideally in sport coach education design, it is anticipated that there would be a facilitation of all three types of coach learning and obviously be applied to the ITF's Starter-Beginner coaching course.

Dos Santos, Mesquita, dos Santos Graca, and Rosado (2010) conducted research to better understand about what coaches value in terms of the knowledge necessary to effectively perform their jobs. Dos Santos *et al.*'s, (2010) research contributes to the purpose of the research of this dissertation. Dos Santos' study concluded that important knowledge areas identified by the coaches were confined to two major domains: knowledge about sport specific contents and knowledge about educating other coaches and management. Identifying coaches' characteristics presented an interest finding as the more experienced coaches with higher education degrees gave more importance to the sport-specific knowledge compared to the less experience coaches (Dos Santos *et al.*, 2010).

Nelson *et al.*, (2006) also conducted research on where coaches acquire their knowledge. More specifically they were trying to understand out of the three styles of formal, informal, and non-formal, which resulted in the greater transfer of knowledge. Nelson *et al.*, (2006)

concluded that there were many different methods of learning; however, formal learning was found to have low impact on the overall learning of professional practice and gave a suggestion on how to make coach education programs more influential in the future. It was suggested to ensure consistency in the way the formal learning episodes are delivered and the manner in which the competencies are assessed.

Cushion, Armour and Jones (2003) commented in their research that in order for coach education programmes to match the high demands in terms of the art of coaching, the conception of learning how to coach needs to be extended. Researchers are encouraged to search beyond the usual parameters of content knowledge that has been associated with current coach education programs (Wright *et al.*, 2007). Evaluating service quality of the ITF's Starter-Beginner coaching course could be one mechanism to search beyond the usual parameters of content knowledge as suggested by Wright *et al.* (2007).

3.4.3 Coaching Pathways

Considering the progress made in the world of sport coaching, it is amazing to learn that little information is available on how to become a successful coach. Although many coaching biographies and autobiographies are available, few researches have proven the pathway to coaching success (Gilbert, Cote, & Mallet, 2006). Gilbert *et al.*, (2006) have attempted to shed some light on this area. Considerable research has been done on the development in sport in recent years. Research has shown the complex array of genetic and environmental factors that interact to facilitate and nurture sporting excellence. Throughout the literature the most consistent theme identifies the critical role of a coach in developing sport talent. A coach's influence will vary across cultures, sports and stages of talent development. Instruction from a competent coach is crucial to excelling as a sport performer. Given the importance of the role of the coach, it is alarming that coach development has not been critically examined. Given the feedback of leading scholars in sport psychology and education, the lack of a conceptual framework to explain coach development is very surprising. For example, the learning concepts required to develop excellence in coaching were identified around 15 years ago. It has been 20 years since Bloom (1985) supported the scientific community to expand his work on talent development to the area of interpersonal relations talent, which obviously includes coaching. Considering research exists on sport coaching; however, our understanding of sport coach development seems to be rather limited. In order to understand the development of coaches, it would be suggested to incorporate a life

span perspective that looks at developmental paths and activities. Bronfenbrenner's (1990) ecological systems theory proposed that coaching development is prevalent when coaches engage regularly in social interactions and domain-related activities that become more complex over time. Numerous researches have shown the importance of past experiences as key sources of coaching knowledge. For example, Schinke, Bloom, and Salmela (1985) revealed that the development of coaching competencies may be needed through learning activities that take place in sport as an athlete, as a coach or outside the sporting arena, both in formal and informal educational environments. Analysis has not been done on how different learning activities interact throughout development in producing a coach (Gilbert, Cote, & Mallet, 2006). In order to obtain more information about the development activities of sport coaches, Bronfenbrenner's study (1990) were posing the following questions: Have successful coaches engaged in similar activities as athletes? How much time is invested in athletic participation before starting to coach? Do successful coaches have similar coaching development activity profiles? How much time is spent in coach developmental activities? (Gilbert *et al.*, 2006)

The findings of Gilbert *et al.*, (2006) were unlike athletic profiles where several trends across coaching contexts were evident. Only one trend was found in how varying groups of coaches invested their time in coach developmental activities. Considering other coaching activities, little time was spent on formal coach education. The authors do mention that this study took place in the USA where there is not an abundance of coach education courses and where there is no mandatory or standard national coaching certification program. The primary reason for coaches not participating in formal coach education program is that they do not find time due to the consuming demands of coaching (Gilbert *et al.*, 2006). From this study, Gilbert *et al.*, (2006) provide some interesting observations. The unwillingness of coaches to attend formal coach education courses is not perceived to be positive feedback to large scale coach education programs. Mention is made by the researchers that the reason behind the coaches not attending courses was a lack of time (Gilbert *et al.*, 2006). However, other reasons could be cited such as lack of confidence in the courses themselves, a fear of not learning anything, and lack of governance by the governing sporting body in making sure all coaches attend some type of formal coach education course. Being a world governing body, it would be anticipated that the ITF would want tennis coaches to attend their courses. Conducting a quality of service evaluation and obtaining feedback from the coaches

participating in ITF courses could provide valuable information to ensure quality control of ITF coaches' courses.

It is important to understand a coach's pathways to see where coaching courses fits in the bigger picture of becoming an accomplished coach. Coaches have different objectives for the development of their coaching career. Some coaches start out just wanting to work with beginner players; others strive to only work with advanced players. It is most coaches' dream to produce a professional tennis player and thereby gain worldwide recognition as a coach. Considering the general structure of novice-expert continuum and the model used by tennis federations including the ITF, there is a need to understand how coaches enter the system and the impact of the first level coaching course in terms of their knowledge as a tennis coach and overall coach development. Once professional tennis players have finished their playing career on the tour, it is not uncommon for them to start tennis coaching. Usually the ex-professional player will coach another professional player without taking any formal learning courses. The ex-professional tennis players do not find much value in taking tennis coaching courses as they have a novice-expert continuum structure. With a novice-expert continuum, all coaches wishing to take coaching courses have to start at the first level. For a tennis coach working with a professional tennis player, much of that information is irrelevant. Equally, coaches with basic playing experience will start coaching beginner players and be content on teaching that level for their entire coaching career, unfortunately in most cases without taking any formal courses. This raises the question on the quality of coaching when taking the first level coaching course. For both profile of coaches, the first level coaching course is important in providing them the necessary knowledge in becoming a competent coach that attracts and retain tennis players in their program. Should a tennis coach not wish to participate in coaching courses, then one should question the development of coaches as there would be a lot of conformity as practices will be passed down from mentor to mentee (Crespo, McInerney, & Reid, 2006).

From a sport coach's development and pathway point of view, the ideal scenario is to have varying amounts of experience, work with players of all levels, and the coaches' knowledge does not have to increase in relation to their student's playing level. Coaches working with beginner players should be as knowledgeable as coaches working with top players; however, the difference would be the types of knowledge they possess (Crespo *et al.*, 2006). In line with the coaches' development pathway, the design of coach education programmes should

conform to different types of learning (lifelong, informal, non-formal, and prior) and competence, promoting a way of thinking of continuous professional development. The question should, however, be asked of the coach in terms of which method of learning is more conducive to maximum gain in knowledge. Overall, it can be concluded that the stages of coach development have a bearing on the coach's job performance, occupational ambitions, experience, and education (Crespo *et al.*, 2006).

It is important to reference tennis coaches' pathway and the role coach education has on their development. In an ideal scenario each coach striving to make a career as a tennis coach takes their particular tennis federation's first level tennis coaching course. The first level coaching course, therefore, plays a pivotal role in developing the fundamental knowledge of each coach attending the course. This implies that the first course in any coach education syllabi should achieve a high level of service quality.

3.4.4 Competency Based Training (CBT)

Confidence is a trait of a successful sport coach, and a key source of instilling this confidence in coaches is through coach education courses. The Canadian sport coach education system recently changed to a competency based approach, and evaluation has shown it to be successful in developing confidence in the coach education process (Nash & Sproule, 2011). Considering the importance of CBT on the future direction of coach education curriculum, it requires further elaboration in the context of this research. Morris (2006) in Crespo *et al.*, (2006:14) defines competencies as “*The combination of skills (application of experience and knowledge - how to do the job), knowledge (facts, feelings or experiences known by the coach - what to do in the job) and attitudes (interpersonal features - what the coach is) that coaches should possess to do their job well, meeting market and customer needs, and the standard performance required of their employment.*” The difference between CBT and previous structures used are that courses are divided into units of competence with each unit consisting of learning outcomes that have a set of performance criteria on which coaches are assessed. Another difference between the two structures is the assessment methods. Traditional methods of coach education required the coach to fulfill a theoretical and practical assessment with the possible outcomes of pass or fail. Each participant has only one opportunity to become successful in the course. In contrast with CBT, the current competence of the coach is recognized if valid, sufficient, consistent, current, and authentic evidence is

provided; and these evaluation opportunities are more and staged evenly throughout the course (Crespo *et al.*, 2006).

This issue of CBT is gaining increased attention from sport coaching researchers (Santos *et al.*, 2010). From a tennis perspective, the ITF is leading the way when it comes to CBT research in trying to keep to international standards. Although competency based training is relatively new in sport coach education circles, the ITF was a leader in the push for tennis education programs to adopt competency based training (ITF, 2012).

Santos *et al.*'s (2010) research explores and expands the interest in what the coaches need to know and what they do with their knowledge. When considering coach education, professional competencies allow coaches to apply theory in their practice; competences become an integral part of the coaching process and must be understood in order to improve coaching efficacy. Through job-task analysis and qualitative approaches, it becomes evident that coaches' behaviours and competences are associated mainly with the areas of training, competition and managing (Santos *et al.*, 2010).

Again, this is important as it provides the foundation for the two questionnaires administered to the participants of this research. Before CBT, it was difficult to ascertain the skills necessary for a coach; a large part of coaches' training was left up to the tutors. Now both the tutor and the coach have a reference tool in making sure they gain satisfaction from coaching courses. This research of the ITF's first coaching level will analyse the coaches' perceptions of what competencies they feel is important for the ITF's Starter-Beginner course. After the course they will evaluate if those competences that they deemed important were delivered by the tutors/course. The feedback from these findings will be beneficial in achieving the objectives of the research presented in this paper.

3.4.5 Coaching efficacy

Sullivan, Paquette, Holt and Bloom (2012) conducted research to examine contextual antecedent factors and how they compared to coaching efficacy and perceived leadership in sport participants. Horn's (2008) working model of coaching effectiveness was used in Sullivan *et al.* (2012) which is in line with other models of leadership effectiveness in sport. Horn's model makes three assumptions. First, the antecedent factors (i.e. sociocultural context, organizational climate, and coaches' personal characteristics) guide coaches'

behaviours indirectly through coaches' expectancies, beliefs, and goals. Second, the coaches' behaviours influence athletes' understanding of their coaches' behaviours and team performance. Third, situational factors and athletes' individual differences influence the effectiveness of the coaches' behaviours. Sullivan *et al.* (2012) stated that Horn's model provides an important foundation for research. Myers, Vargas-Tonsing, and Feltz (2005:16), however state, "*Much work remains in clarifying the specific relationships that exist within these assumptions.*"

The study conducted by Sullivan *et al.*, (2012) focused on the relationship between coaches' beliefs and behaviours and Horn's (2008) antecedent factors proposed to influence coaching behaviours (organizational climate and personal characteristics). Organizational climate relates to the specific sport program structure and the effect that the specific sport program structure might have on the coach. Organizational climate was used in the study of Sullivan *et al.* (2012) in terms of the competitive context. Performance coaching and participative coaching have been identified as two distinct types of coaching context. Performance coaching is defined as having a commitment to performance and the coach designing a seasonal plan to influence performance. In contrast, participative coaching promotes effort and satisfaction and there are few attempts to control variables that affect performance. Sullivan *et al.*'s (2012) study was done in Canada; the Coaching Association of Canada (CAC) differentiates between community and competitive coaching contexts. The community context looks at broad based participation and is the same as participative coaching. The competition context emphasizes skill development for participation in local, regional, or national competitions and is the same as performance coaching. Considering these contexts are defined by different situational variables, Sullivan *et al.* (2012) were able to operationalize organizational climate in a precise and meaningful way and support the ecological validity of any findings within sports in Canada.

Horn (2008) also believed that organizational climate affects coaches' perceptions and ensuing behaviours. The important perception that the authors wanted from the coaches was coaching efficacy. Coaching efficacy can be defined as a sport specific concept where coaches believe they have the capacity to induce learning and performance of their athletes. It has been noted that coaching efficacy is an example of coaches' personal characteristics; however, recently it has been proposed that coaching efficacy as a construct is a self-perception and is logically linked to coaches' beliefs, expectancies, values, and goals. In

addition, research has suggested that coaching efficacy has a direct link with coaching behaviour (Sullivan *et al.*, 2012). These observations are consistent with coaches' perceptions in Horn's model (2008) but not with coaches' characteristics. According to Horn's model, coaching efficacy would be dictated by a variety of sources that include organizational climate and coaching characteristics. By way of researching different samples and measures of coaching behaviours, there has been a direct link established between coaching efficacy and coaching behaviours. Feltz, Short, and Sullivan (2008) were able to confirm this when they investigated efficacy-behaviour relationship in high school basketball coaches. Sullivan *et al.* (2012) compared 15 basketball coaches with high efficacy scores with the 15 lowest scores. The coaches with the better efficacy scores gave greater praise and encouragement behaviours (e.g. positive reinforcement) and significantly less training and instruction behaviours (e.g. technical instruction) than their low efficacy colleagues (Sullivan *et al.*, 2012).

Coaching education has been identified as a powerful source of coaching efficacy. Sullivan *et al.*, (2012) have shown that coaches who have completed a formal coach education course displayed greater coaching efficacy in both their scores before taking the course and control groups of coaches who did not take a course. This feedback reinforces the need to examine coach education in relation to coaching at different competitive levels. It seems as if coaches with higher efficacy scores involve themselves in different types of coaching behaviours than coaches with lower efficacy scores. The study conducted by Sullivan *et al.*, (2012) attempted to explain how coaching context and level of coaching education were related to coaching efficacy and how coaching efficacy was related to perceived leadership behaviours. Different organizational climates created by community versus competitive coaching contexts would have a significant effect on the efficacy-leadership relationship. Level of coaching education also influenced coaching efficacy significantly. Sullivan *et al.*'s (2012) study investigated relationships among several discrete and continuous variables, Sullivan *et al.*, (2012) used structural equation modelling (SEM) to analyse the data. Organizational climate factor of coaching context, coach education, along with the multifunctional constructs of coaching efficacy and perceived coaching behaviour were suggested to be part of a proposed model. Four factors define efficacy: game strategy, teaching technique, motivation and character. Perceived coaching behaviours consist of four leadership factors: positive feedback, social support, training and instruction and situational consideration. Coach education variables for certified or non-certified coaches and coaching context variables of competitive or

community were used to predict coaching efficacy behaviour. It was theorized that Sullivan *et al.*'s (2012) model would provide significant data that supported the model; both coach education and coaching context variables would largely predict efficacy, which consequently would significantly predict perceived leadership style (Sullivan *et al.*, 2012).

The objectives of the study of Sullivan *et al.*, (2012), were to look at how coaching context and level of coaching education were related to coaching efficacy; and in turn, how coaching efficacy was related to perceived leadership behaviours. Different to Horn's (2008) model, the competitive context did not really predict coaching efficacy. However, coach education considerably affected coaching efficacy. In addition, coaching efficacy projected the perceived leadership behaviours of training and instruction, positive feedback, social support, and situational consideration. Horn (2008) observed in his study that different organizational climates would have an effect on the efficacy-leadership behaviour relationship; however, this was not observed by Sullivan *et al.*, (2012). Sport has a distinctive organizational climate, and the difference between community and competitive sport might not be enough to influence the efficacy-leadership relationship. Irrespective of specific sport context, the coaches identified in the study were quite efficacious in their coaching abilities. The lack of difference between these two contexts may also be influenced by coaches' choice of context. The perceived behaviours of coaches may be due to factors outside the design of Sullivan *et al.*'s (2012) study that coaches may include into these contexts as well as to their coach education as coaches may select contexts of which they feel most comfortable. Although Sullivan *et al.*'s (2012) conclusions are speculative, it does highlight the need to analyse the factors why sport coaches made a choice to coach at different levels of competition and how effective they were. Coaching efficacy was found to have a significant relationship with coach education. Other research has identified that coaches of high school athletes aged 12-16 (Malete & Feltz, 2000) and coaches of adult participants (Campbell & Sullivan, 2005) have found that coach education has influenced their coaching efficacy and outcomes. These results point to the fact that coaching education seems to be a crucial factor in the confidence of these coaches. In their review of coach education effectiveness, Trudel, Gilbert and Werthner (2010) provided support for the efficacy of large-scale training program such as Canada's National Coaching Certification Program. Trudel *et al.*, (2010) established that coach education programmes have a positive effect on coaches' efficacy beliefs, knowledge, and behaviours. Evidence has indicated that sport coaches viewed formal large-scale coach education programs to form a critical part of their growth and development (Wright *et al.*,

2007). These observations provide support to the influence of various types of coach education on coaching behaviours and efficacy. It can be concluded from these research results that coach education is important for sport coaches, irrespective of competitive context (Sullivan *et al.*, 2012).

In Sullivan *et al.*'s (2012) study the pathways of coaching efficacy and perceived leadership were analysed and a positive relationship established. The relationship between efficacy and coaching behaviours is understood. When considering coaching process and coaching efficacy, behaviour becomes an outcome of efficacy. This observation has been found in high school and collegiate athletes (Sullivan & Kent, 2003). The results of Sullivan *et al.*'s (2012) study further support for this relationship, specifically for perceived coaching behaviours, by establishing it within sport participants. Coach education has impacted coaching efficacy, it is recommended that sport organizations support the education of their coaches through certified coach education program. This suggestion would be a wise investment in the effect on the coaches' coaching efficacy, coaches' behaviours, and more importantly the experience of the sport participants. Coaching efficacy is the goal for every sport coach. It would also be a goal for the International Tennis Federation (ITF) that all coaches going through their coaching courses would obtain some level of coaching efficacy. The level of coaching efficacy that coaches attain to date is not definable as a proper quality of service and is yet to be done in ITF's coaching courses. It is hoped that this particular study will be able to provide the answers to the gaps in knowledge in making sure coaches attending the ITF's Starter-Beginner course receive good quality of service and with it coaching efficacy. By achieving this quality of service and coaching efficacy, coaches around the world will be doing a better job of retaining players in the game of tennis. The results of this particular study will hopefully fine tune the delivery of ITF's first level course to transfer the appropriate knowledge to coaches to start and maintain a prosperous program of starter-beginner players.

3.5 SPORT COACH EDUCATION AS SPORT BUSINESS SERVICE

What is widely known as the event that kick started the growth of tennis coaching business as it is known today was the battle of the sexes match between Billie Jean King and Bobby Riggs that took place in Houston, Texas September 20, 1973. This event was watched by 90 million viewers worldwide (Georgandis, 2013). The reason for its influence in growing the tennis coaching business was because of the publicity it drew which resulted in more people,

both male and female, taking up the sport of tennis, particularly females because Billie Jean King actually ended up winning the best of five set match in straight sets (Georgandis, 2013). With all of the viewers intrigued by the battle of sexes tennis match and now wanting to take up the sport of tennis, coaches were in demand to give these newcomers to tennis, tennis lessons. In order to comply with the demand, a lot of tennis coaches moved from part-time employment to full time, and also more people in other employment fields changing to tennis coaching. It was the first time tennis coaching was seen as a profession. The period after the battle of the sexes match is seen as the start of the tennis boom (Georgandis, 2013). Considering an increase in demand for tennis coaching lessons and a lack of coach education/training of coaches, many National Federations and stakeholders started to provide courses in order to stimulate the growth of the game. From a tennis perspective, many of the National Federations took it upon themselves to control the certification and training of tennis coaches. Out of the four grand slam nations, who are seen as the major power houses when it comes to tennis, three of the four (Australia, France, and Great Britain) decided to control their own coach education delivery. The United States decided to sanction it out to two organizations, United States Professional Tennis Association (USPTA) and Professional Tennis Registry (PTR). These two organizations would run their organizations like a business and be responsible for training and certification of tennis coaches in the United States. For nations, in particular developing countries that do not have a coach education program in place, they would resort to the International Tennis Federation for assistance in coach education delivery.

In trying to offer the best coach education delivery and assistance to coaches taking courses, Wright *et al.*'s, (2007) research attempted to identify the learning situations of coaches in order to suggest the best way forward in promoting coach development. Wright *et al.*'s (2007) results showed that there are seven different learning situations: (a) large-scale coach education programs, (b) coaching clinics/seminars, (c) formal mentoring, (d) books/videotapes, (e) personal experiences related to sport, family, and work, (f) face-to-face interactions with other coaches, and (g) the Internet. The researchers proposed that it would be best from a coach development/coach education point of view to include a combination of all learning situations instead of focusing on just one (Wright *et al.*, 2007). The coach development proposal as dictated by Wright *et al.*, (2007) could also be adapted to tennis; however, more information is needed to see if the ITF Starter-Beginner coaching course is already appropriately structured and facilitating transfer of knowledge.

Recent research done by Koh *et al.*, (2011) explored the developmental pathways of Singapore basketball coaches. This could provide valuable information on the development of coach education syllabi to model coach education programmes to provide each coach the best possible service. The researchers support the idea that coach education programmes should be developed for coaches and be relevant and cater for the needs of the coaches (Koh *et al.*, 2011). Gilbert, Gallimore and Trudel, (2009) suggested professional learning communities to support large scale coach education programmes. Athletes' experience in sports could have a bearing on them taking up coaching in the later stages of their careers. Ensuring positive sport experiences for athletes positively could facilitate athletes becoming coaches after finishing their athlete career (Gilbert *et al.*, 2009).

Making a change is not always easy particularly in sport coach education where any change can have many ramifications. It does, however, become a responsibility of coach education programs to be up to date with content and delivery even though change might be controversial. Many coach education programs adopt the structure similar to tertiary education systems namely, traditional classroom-based approach. In these circumstances, much of the practical learnings are done by the coaches in their workplace with little direction (Dos Santos *et al.*, 2010). Jones, Amour, and Potrac (2002) in a press article stated that coaching education curriculum are often prescriptive when it comes to teaching methods and neglect supervised field experiences. The traditional approach which many coach education programs have adopted seriously undermines the delivery of much needed practical knowledge (Santos *et al.*, 2010). In their study of actual and preferred sources of coaching knowledge (Erikson *et al.*, 2008), highlight the ineffectiveness of coach education programs due to the formal settings the courses sometimes represent. Further mention was made of the lack of interaction between the coaches and the inability of courses to simplify the complexity of coaching into a condensed course of coaching science. They also stated that certain research has indicated that coach education courses make little progress in the development of coaching knowledge and expertise (Erikson *et al.*, 2008). Coach education programs seem not to be evolving and are stuck in the past in terms of offering a service to coaches. If coach education programs are not delivering service quality and impacting their students from a knowledge point of view, their viability as a business will be put into jeopardy.

According to Nelson *et al.*, (2006) delivery of sport coaching courses has taken a methods-and-material orientation representing coaching as a systematic process that can be presented, acquired and implemented in an unvarying manner. Indeed, many coaching courses have presented the participants with the concentrated wisdom of expert practitioners by presenting set solutions to a variety of perceived coaching dilemmas. Coach education programmes have since been assessed as presenting a wide range of professional knowledge that honours a technocratic rationality. This way of delivery assumes that knowledge, in the form of tricks of the trade, can be passed down from one generation to the next when in reality the development of knowledge in a way is a more complex process. Nelson *et al.*, (2006) research shows how coach education programs are not adapting themselves to the changing environment of coach education and the ways coaches learn. The knowledge that coaches gain at coach education courses will translate into their ability to coach their students. Coach education programs should position themselves by providing good service quality to attract coaches and, therefore, become a sustainable business.

Considering the process of learning, coach education programs have focused on the acquisition learning metaphor where tutors deliver information to their students who then must acquire this information and then apply it in their own practical environment (Wright *et al.*, 2007). The important practical learning, therefore, is not acquired in a formal learning environment, which then forces the candidate to make their own interpretations or seek other avenues for that crucial knowledge. This method of course delivery is not ideal as there would be limited control on which sources was sought after for required practical knowledge. The overall purpose of coaching courses is to deliver the most updated practical knowledge according to sport science principles to allow coaches to deliver the best possible lessons. It seems that coach education programs using the acquisition learning metaphor method are missing the mark as they are failing to deliver important practical knowledge to their participants. Should coaches use their own methods to obtain coaching knowledge this will have an impact of coach education programs as a business. Coach education program should aim to make service quality evaluations to see if they are servicing their coaches in the right way. Offering appropriate service quality will result in more coaches attending coach education courses and supporting the coach education business.

According to Trudel and Gilbert (2006), observations of the lack of effectiveness of coach education programs stems from the novice-expert continuum model. Coach education

programs that use this model are being challenged because every coach will accumulate the same coaching concepts to progress along the continuum and finally reach elite level (Lyle, 2002). This supports the viewpoint of Nelson *et al.*, (2006) in the way that coaches are developed in the same manner and seem to conform to a conveyor belt of like-minded coaches. Considering the research done by Crespo *et al.*, (2006) and Gilbert and Trudel (2004) that most tennis coach education programs offer the novice-expert continuum model including the ITF, it seems that when it comes to coach education further insight is required. A majority of clubs, tennis facilities, training academies, and resorts offer tennis instruction as a business service. The ability of coach education courses to provide the information to tennis coaches to become a better coaching service deliverer seems to be lacking. The concept of quality of service has not been embraced which results in the coaches identifying their own methods of coaching service to remain profitable as a business. Coach education courses should not only provide the best and updated sport science knowledge, but also the methods on how to run a successful business to help retain players in the sport.

The discussed literature in sections 3.2 and 3.4.2 confirms the thinking that coach education courses are not achieving their objectives and purpose of impacting the coaches' knowledge and behaviours. Coach education courses are not meeting the expectations of the participant and not providing the tools to deliver quality coaching lessons and provide a quality service. The desires and needs of the participants of the courses are not known; and, therefore, coach education leaders, in particular tennis coach education leaders, should be conducting research to obtain this crucial information. Unfortunately to date, no such study has been done on any coach education program from a sport perspective.

3.6 RELATIONSHIP BETWEEN SPORT COACH EDUCATION AND SERVICE QUALITY

Recognizing the importance of coach education courses in recent times, a number of countries have made significant investments into reviewing their coach education programmes in trying to produce more proficient coaches (Crespo *et al.*, 2006). Canada, Australia, Germany, Spain, and France are in the process of adapting their coach education program to incorporate competency based training or CBT. With this transition into CBT training and its importance in the development of competency, coaches are benefiting from learning through experience and from the support of experienced coaches/tutors (Dos Santos *et al.*, 2010). Other areas of importance and relevance are the need of coaches to assume

administrative responsibilities, such as managing human resources, financial resources, equipment and infrastructure, marketing and communications, performing organizational assessment and control duties (Dos Santos *et al.*, 2010). Sport coaching is very active and difficult to master, coaches are required to take more responsibilities and develop additional skills and knowledge (Wright *et al.*, 2007). Stakeholders of tennis development are looking to coaching courses to fill these important components of coach development that could in turn provide a better service quality from a tennis instruction point of view.

To better understand the concept of the current impression of formal learning from a service quality point of view, Jones, Armour, and Potrac (2004) conducted valuable research with eight elite coaches from England, New Zealand, and Australia. Their research looked at exploring the coaches' perceptions about experiential, contextual, and situational factors that influenced and affected their practice. Findings from the in-depth interviews concluded that the practical experiences and discussions with other coaches/mentors were deemed more influential than their certification program. Further insight into service quality from a coach education perspective was identified by Nash and Sproule (2011) when they observed a novice and an expert coach to obtain more information on how they developed as coaches. An interesting observation from the novice coach point of view was that in a coach education and club context, the coach developed insecurities about asking questions. This idea of asking questions was not a problem for the expert coach and seems to be a trait of expert coaches. This presents a suggestion to formal learning/coach education courses that in providing a better service quality, they should encourage and facilitate participants of the course to ask questions. To make coaches more receptive to learning experiences, self-determination should be promoted and developed within the courses (Nash & Sproule, 2011). Nash and Sproule's (2011) research supports a study done by Galvin and Ledger (1998) by recognizing the difficulty which coaches have in transferring the learnings from coach education courses to their coaching environment. Skill practices and adaptations require a knowledge base on behalf of the coach and a manner on how to contextualize them before they can be used effectively. Ideally coaches should be introduced to wider educational concepts of knowledge development, problem-based learning, decision-making and reflective practice early in their coaching career. The difference between the novice and expert coach is that the expert coach will be able to adapt more easily when facing difficulty in the coaches training where the novice coach will not have the knowledge base or experience to adapt to that situation (Nash & Sproule, 2011). These two examples of novice and expert coach provide excellent

feedback to coach development in trying to enhance the knowledge of coaches. From these observations it seems that coach education leaders could provide mentorship programming in conjunction with their certification. From a starter-beginner point of view prior to attending the course, the coach could be required to spend time with an identified mentor, thereby, building the tennis knowledge of the coach in a mentorship environment prior to attending the course. This additional aspect of a coach education structure could provide a better service quality in enhancing the tennis coaching skills of each coach going through the system.

Another example of the evidence of the lack of service quality associated with sport coach education was found in the research of Salmela (1995) in Canada where 21 expert team sport coaches were interviewed to ascertain how they evolved through the sport from being young athletes to expert coaches. All coaches interviewed were active in a number of sports as young athletes. Many of the coaches had the privilege to spend time with more experienced coaches and learned through observing and working with them. As the coaches matured, they all mentioned how they learned as a coach through their own experiences and sharing ideas with other coaches and even close rivals. Most of the coaches interviewed mentioned that the development of coaching expertise should involve formal educational experiences and also varying forms of mentorship. The perceptions that the coaches had were that the only method recognized was formal education that leads to certification (Salmela, 1995). Cushion *et al.*, (2003) suggest that in order to produce the best quality coaches, it is time to extend the conception of learning on how to coach. A possible observation of the lack of coach development is suggested by Jones *et al.*, (2004) when they noted the lack of research done on sport coaches (Wright *et al.*, 2007). This falls in line with the premise of this study in the sense of trying to get feedback from starter-beginner coaches on what they perceive to be beneficial to them on how to coach tennis.

A significant finding emerged from work of Lemyre, Trudel and Durand-Bush (2007) when they concluded that there is disagreement among coaches on the importance of formal coach education programs in their development of knowledge. This supports the notion that coach education programmes are not providing an appropriate level of service quality to their participants. These findings could result in a hesitancy of coaches in taking coaching courses. Coaches are recognizing that there are many other ways, and in most cases more convenient avenues, to obtain coaching knowledge such as playing experience, mentoring, and

discussions with other coaches, which might even accelerate the learning process compared to formal coaches education courses. It is, however, stated by Lemyre *et al.*, (2007) that feedback on the perceptions of formal learning varies from coach to coach; feelings of coaches on coach education are important as it is through this feedback that leaders of coach education programs need to take note and reshape their program to achieve maximum efficiency.

Taking a tennis coaching course involves a fee. The objective of the coach taking a course is to learn more about coaching and also in some cases be officially certified to coach at an accredited tennis facility. When a fee is involved, ultimately the participant would like to receive their monies worth. Specific criteria need to be set to make the participant aware so that they make an evaluation of the service quality of the coaching course they are attending.

3.7 INTERNATIONAL TENNIS FEDERATION (ITF) COACH EDUCATION PROGRAMME AS SPORT SERVICE

Since the late 1970's when the ITF Development Programme first started, there has been a consistent focus on the important areas of coach education globally. Recognising that a large number of National Associations in developing tennis regions do not have a coach education program in operation, the ITF provides assistance to these federations in trying to make them self-sufficient in coach education at the national level and establish a quality certification system in their own language and ultimately with its own qualified experts in charge (Miley, 2011).

The ITF provides assistance to member nations in facilitating National Certification Courses for coaches using four different levels of ITF approved coaching syllabi:

- Play Tennis covering the coaching of starter players using the key elements of the Play and Stay Programme including the use of slower balls.
- Coaching Starter-Beginner Players (Level 1).
- Coaching Advanced Players (Level 2).
- Coaching High Performance Players (Level 3).

Play Tennis, Starter-Beginner, and Advanced courses are available in 30 languages worldwide including English, French, Spanish, Arabic, Portuguese, Russian, Chinese, and Farsi, with the goal to assist the ITF member nations to implement a National Coaches Certification System (Miley, 2011). The High Performance Course (Level III) is only available in English and Spanish. Providing courses in as many local languages as possible is a crucial part of the ITF's strategy to have National Associations self-sufficient in their coach education delivery (Miley, 2011).

Coach education program research has identified two models of Large-Scale coach education programs: Novice-expert continuum and Specific coaching context approach. The most common and traditional method and the one used by the ITF is the novice-expert continuum. Most Large-Scale coaching programs include three components: (a) coaching theory, (b) sport specific techniques and tactics, and (c) coaching practice. Novice-expert continuum comprises of a multilevel system of four or five levels that address the three aforementioned components (Gilbert & Trudel, 2004). The specific coaching contextual method seems to be a more effective way of coach education programming and the way coach education organizations are moving. The reason for its effectiveness is that it is tailor-made towards the demands of the coaches. Specific coaching context approach takes two forms. The first form is based on the novice-expert continuum focusing on what the coaches should know; however, there is a defined appreciation of the specificity of the different coaching contexts. The second form is based on what coaches should do and, therefore, is often identified as a competency based program (Gilbert & Trudel, 2004).

Considering the given information, the coach education syllabi offered by the ITF fits into the category of deliverer of a large scale coach education program using the novice-expert continuum. This particular study explores the quality of service the ITF delivers in their first level coaching course that translates into coaches providing an appropriate quality of service in their lessons and resulting in better retention figures. It would, therefore, be evaluating if the novice-expert continuum would be an appropriate model for coach education delivery for the ITF or provide evidence to support a change towards potentially the specific coaching context model.

3.7.1 Applying the dimensions of the SERVQUAL model to the ITF's Starter-Beginner coach education course.

The instrument being used in this research to evaluate the quality of service of the ITF's Starter-Beginner course is the SERVQUAL model. Considering that previously no quality of service evaluation has been done on any sport coach education course, and particularly tennis coaching, it is acceptably felt that the SERVQUAL model is the best instrument. SERVQUAL as originally developed by Zeithaml, Parasuraman and Barry in 1990 aims to measure service quality in the retail world. In order to measure the experience of customers, a comparison is required between the clients' expectations for service performance and perceptions of actual service. If the customer's perceptions of the actual service exceed expectations of service performance, the business is meeting the needs of the customer. On the other hand, if the actual service is below the standard of the expectations of the service performance, the business is lacking in one or more areas of service quality. The SERVQUAL model is divided into five dimensions that best represent the ability to make a service quality evaluation: Reliability, Responsiveness, Assurance, Empathy, and Tangibles. Reliability is the ability to execute the promised service dependably and accurately. Responsiveness measures the ability of the staff to help customers and the staff's reaction to prompt service delivery. Assurance evaluates the employee's apparent knowledge of the agency, courtesy towards the customer, and their ability to instill confidence in the customers. Empathy shows the willingness of the staff to care and give individual attention to the customer. Tangibles are the overall appearance of the facility to the customer (Bauch, 2010). The SERVQUAL model as well as other service quality models as applied to sport contexts was discussed extensively in chapter two.

With an appropriate understanding of each dimension, an analysis of tennis coach education courses was done in order to identify sub-items for each dimension to give each dimension more detail specific to tennis coach education courses. By creating these sub-items, more specific information was obtained relative to the subject of quality of service of the ITF's Starter-Beginner course. Adapting the original sub-items of the SERVQUAL instrument is in line with strategies followed by other researchers implementing this scale in particular contexts as discussed in chapter two.

Originally 34 sub items were identified that represented diverse aspects of tennis coaching course delivery. Through fine tuning and elimination of duplication, 19 sub-items were

included in the final instrument. The original five dimensions of the SERVQUAL model were retained. Table 1 is clarification of the sub-items identified for each dimension.

Table 1: SERVQUAL Dimension and sub-items relevant to tennis coach education

Reliability of service
Credibility of tutors and instructors
Tennis Training course design
Tennis coaching contexts
Organization of tennis coaching practices
Responsiveness of service deliverer
Pre-course organization
In-course organization
Post-course organization
Marketing of course
Quality of tennis coaching course material
Assurance of service user
Integration of prior learning
Learning styles and strategies
Education styles and strategies
Different methods of course delivery
Didactical styles and strategies
Tangibles
Delivery of Technical knowledge
Delivery of Tactical knowledge
Delivery of Scientific tennis principles and knowledge
Empathy of service provider
Feedback opportunities
Tutors created a positive learning environment

For each sub item under each dimension, the participants of the ITF Starter-Beginner coaching course were asked their expectations of the service prior to the start of the course; after the course per each sub-item, they were asked to rate their experience of actual service. These sub-dimensions as adapted to a tennis context will be discussed in more detail in chapter four when the research methodology underlying this research is discussed.

3.8 CHAPTER CONCLUSION

Coach education forms a crucial and formidable tool in developing participation and performance players in any sporting organization. Some sporting organizations recognize this

and have established competitive coach education systems. Other sport organizations have not recognized this and have allowed many individuals to coach players with little to no formal education in that specific sport. Although as seen by much of the literature presented in this chapter, the effectiveness of formal learning in coach education is in question. Research on the quality of coach education courses is limited. Coach education courses that are structured optimally and possess the right information and facilitate transfer of knowledge that each participant can relate to, ultimately forms a valuable tool in coach development. In particular, the emphasis needs to be on developmental coaches who take coach education courses and should receive the appropriate theoretical and practical knowledge in helping them in their coaching to retain players. An important aspect for most sport coaching programmes as a service is the retention of players.

The ITF has decided that coach development courses are imperative for the game's future. In today's world there are many stimulus and distractions awaiting sport participants, and there are lots of competitions in getting children to commit to a sport. A substantive part of sport participation lies in the hands of tennis coaches to market and develop programs and act as the first point of contact for players. Trained competent coaches doing this work on behalf of the sport organization is a valuable marketing tool. With this in mind, it makes sense that the ITF is proactive in improving the knowledge and behaviours of tennis coaches. The ITF has a large role to play in establishing appropriate coach education syllabi because their courses are being used by 80 developing countries worldwide.

Formal coach education has many critiques claiming that this particular learning structure does little for knowledge transfer from tutor to participant. Limited research has been done in identifying the desires and needs of the participants. Some researches, however, do recognize the significance of formal learning and claim it affects the coaching efficacy of coaches. In taking these two valid points into consideration, the premise of this research is established. It is anticipated that with the knowledge obtained from this research the ITF Starter-Beginner course may provide the quality of service and help in the appropriate transfer of knowledge and improve the quality of coaches teaching beginner tennis players to facilitate retention of tennis players throughout the playing continuum.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

This chapter will provide understanding with regard to the research methodology used in this study of the ITF's Starter-Beginner coaching course. Research methodology is defined by Kothari (2009:8) as *“a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them.”* In simplistic terms, it refers to the methods used by researchers to obtain the answers for which they are looking to achieve the stated research objectives.

The main purpose of this particular investigation of the ITF's Starter-Beginner coaching course is to ascertain whether tennis coaches attending these courses worldwide are receiving an appropriate quality of service. Considering the recent launch worldwide of a modified tennis teaching methodology and its adoption into the ITF's coach education syllabi, no research to date has been done on its effectiveness. The impact of the ITF's reach of its coach education syllabi is without question as it conducts its first level coaching course in eighty countries worldwide. Coaches are in most cases the first contact to a prospective starter tennis player. The first tennis lesson a player receives has a big bearing on whether they take up tennis as a sport. The ITF as the world governing body of tennis is continually looking at the future of the game in making sure growth is achieved. The ability of tennis coaches to attract and retain tennis players in their program is noted, and measures need to be taken to help the coach achieve their objectives. Through making a quality of service evaluation of the ITF Starter-Beginner coaching course, more insight can be obtained in how tennis coaches may attract more players to the game of tennis and retain them in the sport. It also implies looking at how the new modified rules game has been adopted into tennis coach education syllabi. A pre-course and post-course questionnaire were administered to the respondents using a Likert scale, and additional information was sought after through consent interviews in trying to establish the level of service quality the tennis coaches received.

The objectives stated for this particular study are to:

- Evaluate the expectations of service quality of tennis coaches attending the International Tennis Federation's (ITF) Starter-Beginner course;

- Determine the actual satisfaction with service quality of tennis coaches attending ITF's Starter-Beginner course;
- Identify gaps between the expectations and the coaches' experience of ITF's Starter-Beginner course; and
- Make recommendations to the ITF on potential changes to the ITF's Starter-Beginner course to facilitate service quality of courses to retain tennis players and coaches.

This chapter gives in depth information on the research methods that were used in determining quality of service of the ITF Starter-Beginner coaching course. Information about the research design, data collection, sample and sampling procedure, and administration of the questionnaire are presented.

4.2 RESEARCH APPROACH AND DESIGN

Research design is defined by Creswell (2009:22) "*as the plan or proposal to conduct research, involves the intersection of philosophy, strategies of inquiry, and specific methods.*"

A mixed method research design was followed for this study. Creswell (2009) defines a mixed method approach as using both qualitative and quantitative forms of data collection that resulted in an in-depth analysis of the expectations and perceived quality of service of the International Tennis Federation's (ITF) Starter-Beginner coaching course. Mixed method is more than collecting and analysing both kinds of data; it requires the use of both methods working together so that the strength of a study is stronger than either quantitative or qualitative research (Creswell, 2009).

There are three general strategies when it comes to using mixed methods approaches. Sequential mixed methods is when the researchers look to expand on the findings of one method with another method. The study may start with the quantitative method in which a concept is tested and then use of qualitative method consisting of detailed exploration with a few cases or individuals. The second general mixed method strategy is concurrent mixed method. Concurrent mixed method procedures are when the researcher merges quantitative and qualitative data to provide a comprehensive analysis of the research problem. The investigator collects both forms of data at the same time and then incorporates the data in the interpretation of the overall results. The last mixed method is transformative mixed method. Transformative mixed methods look at the researcher using a theoretical lens as a central perspective within a design that uses quantitative and qualitative data. The theoretical lens

provides a framework for obtaining the data, topics of interest, and outcomes anticipated by the study. Through use of the lens, the data collection technique could incorporate sequential or a concurrent approach (Creswell, 2009).

The type of mixed method design used in this research is the Sequential Explanatory Design. Sequential Explanatory Design method is identified by the collection and analysis of quantitative data in the first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results (Creswell, 2009).

Quantitative research is defined as a way to test objective theories by looking at the relationships among variables. Quantitative approaches dominated the forms of research in the social sciences from the late 19th century up until the mid-20th century. Quantitative research is framed in terms of numbers, and close ended questions. These variables can be measured using instruments so that numbered data can be analysed using statistical methods. The resulting report has a set structure involving introduction, literature and theory, methods, results, and discussion. When conducting research using this method, assumptions about testing theories are made deductively, building in protection against bias, controlling for alternative explanations, and being able to generalize and replicate findings (Creswell, 2009).

During the 19th and 20th Century, strategies of inquiry related to quantitative research were those that appealed to the post-positivist window. These include true experiments, quasi-experiments, correlational studies, and specific single-subject experiments. Most recently, quantitative strategies have consisted of complex experiments with many variables and treatments. Two main strategies of inquiry involve surveys and experiments (Creswell, 2009). Survey research gives a quantitative or numeric description of trends, attitudes, or feedback of a population by studying a sample of that population. It embraces longitudinal studies and cross-sectional studies using structured interviews or questionnaires for data collection, with the objective of simplifying a sample of a population (Creswell, 2009). Experimental research looks to establish if a specific treatment dictates an outcome. This influence is determined by providing a specific treatment to one group and withholding it from another and then determining how both groups scored on the outcome (Creswell, 2009).

The quantitative research portion of this research uses a survey method where a pre-and post-questionnaire was administered to respondents. Survey research is defined by Creswell (2009:29) as “*numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaires or structured interviews for data collection, with the intent of generalizing from a sample to a population.*” The pre-course questionnaire was administered at the beginning of the course to assess the level of expectation tennis coaches attach to the 19 sub items that represent the 5 dimensions of the SERVQUAL model, on a Likert scale of 1-5. After the course the post-course satisfaction questionnaire was given to the same coaches who completed the pre-course expectations questionnaire, asking them to rate their actual satisfaction to the 19 sub-items of the questionnaire. The purpose of this research method of giving a pre-course expectations and post-course satisfaction questionnaires is to conduct a gap analysis. Gaps in the coaches’ expectations and satisfaction of the ITF’s Starter-Beginner coaching course will be sought after to provide foundation to this particular research. Additionally any findings will be used in the recommendations section in Chapter 6 and given to the ITF so they are able to provide a better service quality to the participants of their first level course, to help tennis coaches attract and retain players in their program.

Qualitative research is a way of exploring and understanding the meaning individuals or groups assign to a social or human problem. When compared to quantitative research that uses number and closed ended questions, qualitative uses words and open-ended questions. This method of research involves emerging questions and procedures; data collected in the participant’s setting, data analysis built from particulars to a general theme, and the researcher making deductions of the meaning of the data. This method of looking at data using an inductive style, a focus on individual meaning, and the importance of identifying the difficulty of a situation (Creswell, 2009). Where quantitative has a set structure qualitative research has a flexible structure. Researches that engage in this form of research adhere to a way of looking at research that honours an inductive style, a focus on individual meaning, and the need to reveal the complexity of a situation. The difference between quantitative and qualitative research is that quantitative research is described in words or closed-ended questions, and qualitative research uses open-ended questions (Creswell, 2009).

In qualitative research, the types of approaches and number have also become more evident during the 1990’s and into the 21st Century. Various types and complete procedures are now

available on specific qualitative inquiry approaches, as summarized by books. There are five qualitative strategy of inquiry namely; ethnography, grounded theory, case studies, phenomenological research, narrative research. Ethnography is a strategy of inquiry in which the researcher studies an intact cultural group in a natural setting over a lengthy period of time by gathering, primarily, observational and interview data. Grounded theory is where the researcher develops a general, abstract theory of a process, action, or communication grounded in the views of participants. This method involves using multiple stages of data collection and the modification and interrelationship of categories of information. Case studies are where the researcher discovers an in depth program, event, activity, process, or one or more individuals. Cases are confined by time and activity, and researchers collect information using a variety of data collection procedures over a sustained period of time. Phenomenological research is a strategy of inquiry where the researcher finds the essence of human experiences about a phenomenon as defined by the participants. Learning more about lived experiences marks phenomenology as a method as well as a philosophy, and the procedure consists of studying a small number of participants through sustained and extensive engagement to identify patterns and relationship of meaning. Narrative research is where the researcher studies individuals and asks one or more individuals to share stories about their lives. This information is then relayed by the researcher into a narrative chronology. Overall, narrative research combines views from the respondent's life with those of the researcher's life in a collaborative narrative.

The qualitative research section of this research looked at asking each respondent who participated in the quantitative section of the research to consent to a personal interview to gain more insight into their quantitative responses.

Table 2 below gives a comparison between the three different methods of research design that involves forms of data collection, analysis and interpretations that researchers use for their research.

Table 2: Comparison of the three methods of survey research design, (quantitative, mixed and qualitative methods)

Quantitative Methods	Mixed Methods	Qualitative Methods
<ul style="list-style-type: none"> • Pre-determined • Instrument based questions • Performance data, attitude data, observational data and census data • Statistical analysis • Statistical interpretation 	<ul style="list-style-type: none"> • Both pre-determined and emerging methods • Both Open and closed-ended questions • Multiple forms of data drawing on all possibilities • Statistical and text analysis • Across databases interpretation 	<ul style="list-style-type: none"> • Emerging methods • Open-ended questions • Interview data, observation data, document data, and audio-visual data • Text and image analysis • Themes, patterns interpretation

In exploring the quality of service of the ITF’s Starter-Beginner coaching course run by the governing body of tennis, the standardized quantitative methodology of the SERVQUAL research instrument supplemented by qualitative unstructured personal interviews was used to identify and quantify the possible gaps between the expectations and experiences of tennis coaches taking such courses worldwide.

4.3 RESEARCH POPULATION

4.3.1 ITF Starter-Beginner Tennis Coaches’ Course

This particular research is looking at the service quality of the ITF’s Starter-Beginner coaching course. The population identified are tennis coaches attending ITF Starter-Beginner tennis course. Four coaching courses were identified due to their timing and English language delivery. Tennis coaches can apply to their National Tennis Federation to attend this coaching course and are admitted to the course on a first come first serve basis. Considering it is the first level tennis coaching course, little restrictions are set for entry into the coaching course. The ITF sets a rule of having twelve participants per one tutor. Over the four courses, the ITF in conjunction with the National Tennis Federation nominated two tutors per course, except

for the South African course where three tutors were chosen. Over the four courses, the maximum number of 108 coaches could participate in this study taking into consideration the number of tutors assigned. As a result of having only half the number of coaches participating in the Seychelles coaching course, the sample population for this study was 96.

4.4 RESEARCH SAMPLE DESIGN

In this research a two-layered sample procedure was used. This particular research first involved a sample of ITF Starter-Beginner Tennis Coaches' courses and second, a sample of individual tennis coaches attending the aforementioned coaches' courses. ITF Starter-Beginner Tennis Coaches' courses constituted the first-layer of a purposive research sampling process. Purposive sampling method is defined as where the researcher deliberately chooses the respondents for the sample (Kothari, 2009). Considering the objective of this research is to evaluate the service quality of the ITF's Starter-Beginner course, it was necessary to purposively choose coaches who have taken the course and consented to obtain insight into their course experience and measure the perceptions of the service quality the course gave them. Through its coach development department, the ITF stages tennis coaching courses worldwide in countries that do not have their own coach education system in place. The ITF places Development Officers in regions around the world that qualify as tennis developing countries. It is the role of the Development Officers (DO) to work with the particular National Tennis Federation to provide technical recommendations to develop tennis on many levels including coach education. Should a DO think a country needs a Starter-Beginner coaching course, a recommendation will be given to the National Olympic Committee (NOC), and then that NOC through its Olympic Solidarity budget will apply to the International Olympic Committee. Approval will be sent to the NOC as well as the ITF to identify experts to conduct the course.

Contact was made with the ITF Coach Education Department to identify countries offering the Starter-Beginner course to be used in the purposive research sample. Consent to use the ITF Starter-Beginner course was already obtained and proof of this is given in Appendix A. Countries chosen for inclusion in the purposive sample represented three continents. The four courses purposively chosen due to their convenient timing of proposal approval and language delivery of English are South Africa (Africa), Seychelles (Africa), St Lucia (North America), and Vietnam (Asia). The researcher was not the assigned tutor for any of the courses in order to ensure the objectivity of the respondent's responses.

Individual tennis coaches attending the purposive selected ITF Starter-Beginner Tennis Coaches' courses constituted the second-layer of purposive sampling. Once approval had been given by the ITF in conjunction with Olympic Solidarity and the particular National Tennis Federation, the National Tennis Federation selects participants for the Starter-Beginner course. A contract is set up between the ITF and the National Tennis Federation stipulating the conditions of the course. Usually all conditions are set three months prior to the actual event to allow for shipment of equipment and marketing of the course to local tennis coaches and to secure expert presenters. The ITF sets a limit of 12 coaches per assigned tutor to attend the ITF's Starter-Beginner course. The criteria set out by each National Federation are the determining factors of the coaches' participation in each course. It is not uncommon to have additional criteria that the National Federation will impose; however, the ITF recommends that the National Federation uses the following inclusion criteria for coaches:

- Citizens of that particular country
- In good standing with the Federation
- Playing level of ITN 8-10
- Previous experience as a tennis coach
- Willing to volunteer time to the National Federation's development tennis program
- Aged between 18 and 50 years

Exclusion criteria were set as:

- A coach who missed more than 4 tutor contact hours
- A coach who would not have participated in the assessment part of the Starter-Beginner course

All 96 coaches accepted into the four sample courses were purposively invited to take part in this research. All participants were made fully aware of the conditions of participating in the research and informed written consent was obtained from each of them. Verbal and written instructions were given by the Head Tutor of the course explaining how the research will be conducted as well as the purpose of the research.

The sample design used for this particular research was two-stage sampling. The selection used for this sample is random sample. Random sample is defined by Creswell (2009:125), “*Each individual in the population has an equal probability of being selected.*” Through use of stratification means the sample of this course have both males and females and are tennis coaches.

4.5 SAMPLE SIZE

Ninety six coaches (n=96) over four Starter-Beginner tennis coaching courses were approached to take part in the quantitative part of the research. Representation of respondents included South Africa (n=36), Vietnam (n=24), Seychelles (n=12), and St Lucia (n=24). Of those 96 coaches, 71 (South Africa n=22, Vietnam n=24, Seychelles n=11, St Lucia n=14) consented to take part in the quantitative SERVQUAL survey as part of the research. Unfortunately, 15 (South Africa n=11, Seychelles n=2, St Lucia n=2) questionnaires had to be discarded as a result of participants not completing the questionnaire properly. The questionnaires that were discarded had a number of the closed questions not completed, therefore, making assessment of their evaluations difficult to understand. Therefore, 56 participants were used in the final analysis section of this research. The response rate complies to the predicted number of 50 participants. Fifty-six participants out of ninety-six represent a 58.33% response rate. According to Mangione’s (1995) rating, a response rate of 58.33 puts it in the 50-60 range, meaning it is “barely acceptable,” therefore, making it a valid sample from a size point of view.

The second part of the research used qualitative interviews with the participants who had consented to provide additional insight into their expectations. Over the 4 courses, 15 coaches who completed the quantitative questionnaire (South Africa n=5, Vietnam n=2, Seychelles n=4, St Lucia n=4) had agreed to take part in the qualitative individual interview part of the research. The researcher decided that 2 interviews per course were sufficient to obtain further insight into the experiences of the participants. Considering that 15 participants consented to interviews and in all but one out of the four courses had more than two participants, a selection was required to meet sample size of 8. Gender equality was imperative in the respondents’ research sample. For the St Lucia and South Africa courses, taking a male and female interview sample was possible. The Vietnam course was only represented by males, it was decided to obtain two female interviews from the Seychelles course. Out of the 4 participants who consented from the Seychelles course, two females were invited to take part

in the interview process. For the Vietnam course, only two consented to the interview process; and those two males were invited. In the St Lucia course, four consented which consisted of two males and two females. Contact was made with the Head Tutor to get feedback on which participants would facilitate an appropriate evaluation; and with that recommendation, the two participants were purposively chosen. The same sample procedure was followed for the South African course. Where there was more than one male and female consenting to the interview, contact was made with the Head Tutor to purposively select the respondents.

4.6 RESEARCH INSTRUMENT

A quantitative and qualitative research instrument was used. Survey method is used for the quantitative section, and the feedback from the quantitative response was used in the qualitative section. Survey research is defined by Creswell (2009:45) as “*a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population. It includes cross-sectional and longitudinal studies using questionnaires or structured interviews for data collection, with the intent of generalizing from a sample to a population.*” The standardized quality of service SERVQUAL questionnaire with an Alpha Cronbach value of $\alpha=0.97$ to evaluate pre-service expectations and actual post-service experiences of a group of tennis coaches attending the ITF Starter-Beginner Tennis Coaching course constituted the quantitative research instrument. The main objective of this questionnaire was to evaluate the total service quality experience of coaches attending the ITF’s Starter-Beginner course. The SERVQUAL is an appropriate instrument for service quality evaluation due to its use in sport and service quality assessments. Using the standardized SERVQUAL research methodology, a pre-and post-questionnaire exploring five dimensions of service quality was administered to respondents. The five dimensions of service quality are: reliability of service, responsiveness of service deliverer, assurance of service users, tangibles and empathy of service provider. Nineteen sub-dimensions explored the gap between respondents’ expectations and actual service experience. The following sub-dimensions of service quality were relevant in obtaining an appropriate quality of service evaluation: organization of tennis coaching practices, tennis training course design, tennis coaching contexts, pre-course organization, in-course organization, post-course organization, modes of course delivery, learning and education styles and strategies, didactical styles and strategies, credibility of tutors and instructors, learning environment, feedback opportunities,

marketing of courses, quality of coaching course material, integration of prior learning, technical, tactical and scientific tennis principles and knowledge.

The sub-items under each dimension of SERVQUAL model constituted two questionnaires (Appendix C). The sub-items elaborate on the tennis coach education context and provide appropriate feedback to the research objectives of obtaining a service quality of the ITF's Starter-Beginner Coaching Course. The pre-course questionnaire was divided into two sections. The first section requested demographic information from each participant. In the second section, 19 sub-items representing the 5 service quality requested respondents to rate the importance they give to each sub item on a 5 Likert point scale, with 1 representing Not Important increasing to 5 expressing Extremely Important. The post-course questionnaire was also divided into two sections. The first part was an identical layout to the pre-course questionnaire where the sub-items were presented on a 5 Likert point, where a grading of 1 representing No satisfaction and 5 Extremely satisfied. The second part of this section requested respondents to give consent to be part of the interview part of this research.

The qualitative part of the research used a personal in-depth interview. The aim of the personal interview was to gain further insight into the importance each tennis coach gave to identified aspects of the ITF's Starter-Beginner Coaching course. In addition, the personal interviews gained more information on the perceived level of satisfaction of the course. This approach of asking respondents to rate their importance in this circumstance to a tennis coaching course and then to rate their perceived level of satisfaction corresponds with the objective of this research in obtaining the service quality of the ITF's Starter-Beginner coaching course. The nature of the questions asked in the personal interviews were largely based on responses made by the respondents on their quantitative questionnaires. Additional insight was drawn upon from the profile of each coach. A combination of the responses made on the questionnaire and each coach's profile was, therefore, used to ask questions in the personal interviews.

4.7 DATA COLLECTION PROCEDURES

The contact details of the Head Tutors for each course were given to the researcher by the ITF's Coach Development Department. Contact was initially made through email to the Head Tutor for each course detailing the objectives of the research, how to administer the questionnaires, and to provide a proof of consent letter from the ITF. If the Head Tutor did

not understand the process, he/she were invited to make contact with the researcher for further clarification. Three of the four Head Tutors did request further clarification and conversation was done via Skype.

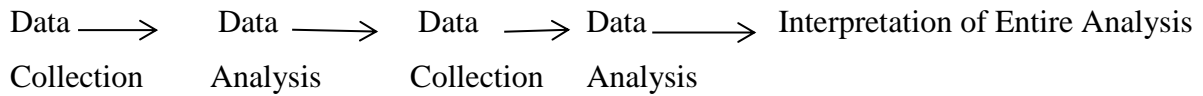
At the beginning of the four Starter-Beginner courses, a short presentation was given by the Head Tutor to all participants with the researcher's introductory letter projected by LCD projector on a screen for all participants to see and make an informed decision. The procedure taken by the Head Tutor was to invite all participants to be part of this research that was explained in a letter and given to each Head Tutor and follow up conversation (Skype) if any part or procedure was unclear. The interested tennis coaches were then given the research documents that included the introductory letter, consent form for the pre-course expectations questionnaire, expectations questionnaire, consent form for the interview, and post-quality of service questionnaire. The participants not willing to be part of the research were asked to leave to allow the participants to fill out the questionnaire without distraction. The Head Tutors at each course purposively selected course locations to provide respondents opportunity to fill out the questionnaire. The first questionnaire given to each consented respondent was the pre-course questionnaire. The pre-course questionnaire is divided into two parts. The first part has 13 questions that requested background information of each participant (gender, age, highest educational qualification, years playing tennis, highest level of play, years of coaching, hours per week coaching, whether the class had been taken previously, how long ago previously completed coaching qualifications, country where currently coaching, age groups most time spent coaching per week, levels most time spent coaching per week). The second part of the pre-course questionnaire focused on the expectations on 19 sub-items over the 5 dimensions of the SERVQUAL model (reliability of service, responsive of service deliverer, assurance of service user, tangibles, empathy service provider). For each sub-item, the participants had an option to grade their importance to their coaching on a Likert scale of 1-5, with 1=No importance and 5=Extremely important. Nineteen sub-items were identified that represent the five dimensions of SERVQUAL and specific aspects of running of coach education courses in determining the overall service quality of the ITF's Starter-Beginner coaching course provides. Initially all aspects of running a tennis coaching course were identified. These aspects were then put under each of the five dimensions of SERVQUAL. This leads to the SERVQUAL dimension Reliability of Service having four sub-items, Responsiveness of Service Deliverer consisting of five sub-

items, Assurance of Service User also containing five sub-items, Tangibles entailing three sub-items, and Empathy of Service Provider involving two sub-items.

Respondents were given 15 minutes to complete the questionnaire, and not one of the participants required further time to complete the questionnaire. Each course Head Tutor was on hand at the time of completing the questionnaire in case any of the participants had any questions. Completed pre-course expectations questionnaires were collected by the respective Head Tutors. The other participants were then asked to re-join the group and then the course officially started. On the last day of the course after the course was officially closed, the sample of respondents were asked to complete the post-course experience quality of service questionnaire. The post-course questionnaire also consisted of two parts. The first part was an identical questionnaire of the pre-course questionnaire, although now respondents had to grade their level of actual satisfaction on the 19 sub-items of the SERVQUAL questionnaire. The second part of the post-course questionnaire asked for consent of respondents to take part in a personal interview. The respective Head Tutors then distributed post-course questionnaire. The same conditions were met as with the pre-course expectations questionnaire where the respondents were given 15 minutes to complete the quality of service questionnaire. The respective Head Tutors were present to answer any questions. Once finished, the Head Tutors collected all the completed questionnaires. All completed questionnaires were couriered to the researcher. Considering that they have a vested interest in the result of this research, the ITF agreed to pay for the couriering of the research documents to the researcher.

Over the 4 courses, 8 participants consented to a personal interview. Once the completed questionnaires were received by the researcher, contact was made by email with each participant to set up a convenient time to conduct the interview. The interview aimed to gather further insight into their experience of the ITF's Starter-Beginner course. All interviews were conducted by Skype due to cost savings reasons. Each interview by consent of the participant was taped in making sure the feedback given was properly accounted for and represented in the findings. All interviews were timed, and none of them exceeded 30 minutes. A summary by way of a diagram is given below.

Quantitative→Quantitative→Qualitative→Qualitative



4.8 DATA ANALYSIS AND INTERPRETATION

4.8.1 Quantitative analysis

Pre-course and post-course SERVQUAL questionnaires on the expectations and experiences of service quality related to the service (ITF Starter-Beginner Course) were analysed using descriptive statistics to calculate percentages, means and standard deviations according to the SERVQUAL methodology. The Kruskal-Wallis and Mann-Whitey U tests were used in determining any differences in responses between the four courses and five dimensions of SERVQUAL model. A value of 0.05 was used as a norm value for both tests in identifying any differences. Any values below this norm value of 0.05 would signify a large enough difference in the responses made by the respondents and worthy of mention.

4.8.2 Qualitative analysis

After quantitative analysis was done questionnaires were used to identify the respondents who had consented to personal interviews to gain further insight into their quantitative responses. An interview schedule was set up and then the personal interviews were conducted by way of Skype. Questions were posed to the respondents from their responses to the pre-course expectations and post course satisfaction questionnaires. Specifically gaps in the responses from the pre-course expectations and post-course satisfaction were sought after then further insight into the reasons behind these gaps were asked of the respondents. This feedback given by the respondents was then related to the SERVQUAL dimensions, and any recommendations to the improvement of the coaching course are presented in Chapter 5.

4.9 ETHICAL CONSIDERATIONS

4.9.1 The right to privacy and non-participation

All information obtained from participants was essential to the study. No unnecessary information was collected. All respondents voluntarily participated in the research after they had been informed that they had the right to not participate in the study and to discontinue the questionnaire or interview at any time. All participants were required to sign informed

consent forms (Appendix B) for both the pre-course, post-course questionnaires and interviews.

4.9.2 The right to remain anonymous

Numbers were assigned to each questionnaire and recorded Skype interviews to maintain anonymity during the data collecting and analysing stages. Skype interviews were only recorded auditory after visually establishing that it was the purposively selected respondent. Results were reported on collectively and anonymously.

4.10 CHAPTER CONCLUSION

In this chapter, the research methodology, research objectives, data collection procedures, and research design were presented. Reasoning for the methods taken were detailed and justified in this chapter. The pre-course expectations questionnaire was given to the respondents prior to the course starting, and they were asked to rate their importance to the five dimensions of SERVQUAL. After the course the respondents were given the post-course satisfaction questionnaire and required to rate their satisfaction according to the same five dimensions of SERVQUAL. In addition, each participant was asked to be part of an interview that was used to gain further insight into each participant's experience. A gap analysis was then done from the responses given by the respondents to the two questionnaires in evaluating the service quality of the ITF's Starter-Beginner coaching course. The next chapter will present the analysis and interpretation of the results.

CHAPTER 5

ANALYSIS AND INTERPRETATION OF RESULTS

5.1 INTRODUCTION

The SERVQUAL model was used in this study to measure the service quality of the International Tennis Federation's (ITF) Starter-Beginner coaching course. Two questionnaires were used to collect data for this research: a pre-course expectations questionnaire and a post-course satisfaction questionnaire of service quality of the tennis coaching course. The pre-course expectations questionnaire was administered to a purposive sample of participants who consented to be part of this research prior to the start of the ITF's Starter-Beginner Coaching Courses at four locations. The pre-course questionnaire measured the level of expectations of respondents to five dimensions of the SERVQUAL model: reliability of service, responsiveness of service deliverers, assurance of service user, tangibles, and empathy of service provider. For each dimension, sub-items were included in the questionnaire that would obtain more information of the respondents' expectations. Each sub-item was structured in a closed question format where a Likert scale of 1 to 5 was used. A response of 1 was deemed not important to a response of 5 being extremely important. After completion of the course, a post-course satisfaction questionnaire (quality of service) was administered to respondents who completed the pre-course questionnaire where they were asked to indicate the level of satisfaction of the dimensions and sub-items of the SERVQUAL model. As with the pre-course expectations questionnaire, the same closed questions were stated, and the participants had an option of Likert scale of 1 to 5 to respond. A response of 1 would signify no satisfaction and 5, extremely satisfied. The level of quality of service was obtained relating what the participants thought was important relative to the dimensions of the SERVQUAL model and then stating their satisfaction on what they received from the coaching course. A gap analysis was then used to establish the service quality of the ITF's Starter-Beginner coaching course through the SERVQUAL methodology and is discussed and interpreted in this chapter.

In this chapter the analysis of the questionnaire will be presented as per the order sequence of the closed questions (dimensions) of the questionnaires. Both the expectations and satisfaction questionnaires are given in Appendix C.

The Kruskal-Wallis and Mann-Whitey U tests are non-parametric tests used to identify any differences in responses made by the respondents. The Kruskal-Wallis test is normally used to test the differences between three or more independent groups. Kruskal-Wallis test in this study was used to test difference in responses between the four sampled courses (five dimensions of SERVQUAL and the expectations and satisfaction questionnaires) and profiles of respondents. The Mann-Whitey U test was used to test the differences in responses from a gender perspective, as it is a better test to identify the differences between two independent groups. Not all the profiles of respondents were used to identify any differences because a significant amount of responses were required per profile field. The following profiles were used: gender profile, age profile, years playing tennis, and years coaching tennis. For both tests a value of 0.05 was set as the norm value in identifying any significance of differences and therefore would warrant mention.

5.2 QUANTITATIVE ANALYSIS AND RESULTS OF THE QUESTIONNAIRE

The profile of respondents as per gender, age, highest educational background, years playing tennis, highest playing level, years of coaching, hours per week coaching, and breakdown of respondents per geographic location are presented in Tables 3,5,7,8,10,11,13, and 14, representing a percentage of the total number of respondents (n=56) in this purposive sample of respondents.

Following the background profile presentation of data, the dimensions of the SERVQUAL model as per their respective sub-item closed questions responses are analysed and given in Tables 15-20. The responses of the participants for both questionnaires for ease of analysis are condensed into three categories of no/little importance, average importance, and very/extremely importance. The respondents that marked 1 or 2 on the questionnaire were put in the no/little importance category; respondents who marked 3 were put into average category, and those respondents who marked 4 or 5 were put into the very/extremely important category. Each value in Tables 15-20 represents a percentage of all the respondents' responses in the very/extremely section. For each sub-item in tables 10-15, a difference is calculated that represents a gap analysis between the pre-course expectations questionnaires and the post-course satisfaction questionnaire. Table 20 summarizes the responses made by the respondents over the two questionnaires covering all five dimensions. In Tables 15-19, a separate column (gap analysis) is presented recognizing whether each sub-

item was below, zero, or exceeded the respondent's indicated level of satisfaction with the quality of the tennis coaches education course. Results are first presented and then discussed and interpreted in 5.4.

5.2.1. BACKGROUND INFORMATION

5.2.1.1 Gender

Table 3: Gender profile of respondents

Gender	N	%
Male	43	76.8
Female	13	23.2
Total	56	100.0

Over the four courses, 76.8 % tennis coaches were male. Having all males for the Vietnam course and all participants consenting to be part of this research had a big influence on the substantial male representation and outcomes of this research. This one-sided male representation could have something to do with the poor female tennis participation figures in Seychelles, South Africa, Vietnam, and St Lucia. If few females are playing the sport, naturally not many will be making the transition to coaching. In order to recruit female tennis coaches, the female tennis participation figures need to increase. This is a concern for both the ITF and National Tennis Federations and requires focused strategies.

As per table 4 below the Mann-Whitey U test was used to identify any differences in responses from a gender perspective between all four courses using the SERVQUAL dimensions of the pre-course expectations and post-course satisfaction questionnaires.

Table 4: Non parametric test: Differences between pre-course expectations and post-course satisfaction questionnaires responses in terms of gender profile.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Reliability of service - Expectations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.199	Retain the null hypothesis.
2	The distribution of Reliability of service - Quality is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.750	Retain the null hypothesis.
3	The distribution of Responsive of service deliverer - Expectations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.263	Retain the null hypothesis.
4	The distribution of Response of service deliverer - Quality is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.229	Retain the null hypothesis.
5	The distribution of Assurance of service user - Expectations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.449	Retain the null hypothesis.
6	The distribution of Assurance of service user -Quality is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.184	Retain the null hypothesis.
7	The distribution of Tangibles Expectations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.916	Retain the null hypothesis.
8	The distribution of Tangibles Quality is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.539	Retain the null hypothesis.
9	The distribution of Empathy of service provider - Expectations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.934	Retain the null hypothesis.
10	The distribution of Empathy of service provider - Quality is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.908	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

5.2.1.2 Age

Table 5: Age profile of respondents

Age in years	N	%
15-20	1	1.8
20-30	21	37.5
30-40	17	30.4
40-50	14	25.0
50+	3	5.3
Total	56	100.0

The majority of the respondents is in the 20-30 years age group. Having a little more than, 55.4%, in the older age groups of 30-40 and 40-50 is interesting and positive from having that mature influence working with starter-beginner tennis players. An important implication for leaders of coach education courses is the strong participation of coaches in the 20-30 years age group. This also, however, puts pressure on the coach education syllabus in making sure

that the coaches taking the course have the appropriate fundamental knowledge to apply in their coaching to ensure players are not only attracted to the sport, but also retained. This responsibility falls on the shoulders of the ITF as they make available their syllabus to developing countries.

As per Table 6 below the Kruskal-Wallis test was used to recognize any differences in responses from an age profile of the SERVQUAL dimensions of the pre-course and post-course satisfaction questionnaires.

Table 6: Non parametric test: Difference between pre-course expectations and post-course satisfaction questionnaires responses in terms of age profile.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Reliability of service - Expectations is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.190	Retain the null hypothesis.
2	The distribution of Reliability of service - Quality is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.400	Retain the null hypothesis.
3	The distribution of Responsive of service deliverer - Expectations is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.070	Retain the null hypothesis.
4	The distribution of Response of service deliverer - Quality is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.753	Retain the null hypothesis.
5	The distribution of Assurance of service user - Expectations is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.810	Retain the null hypothesis.
6	The distribution of Assurance of service user -Quality is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.219	Retain the null hypothesis.
7	The distribution of Tangibles Expectations is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.175	Retain the null hypothesis.
8	The distribution of Tangibles Quality is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.473	Retain the null hypothesis.
9	The distribution of Empathy of service provider - Expectations is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.145	Retain the null hypothesis.
10	The distribution of Empathy of service provider - Quality is the same across categories of Age Recoded.	Independent-Samples Kruskal-Wallis Test	.508	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

5.2.1.3 Highest Educational Background

Table 7: Highest educational background of respondents

Highest Educational Background	N	%
Secondary school	21	37.5
Certificate or Diploma	15	26.8
Trade/Apprenticeship	4	7.14
Undergraduate Degree	12	21.4
Postgraduate Degree	3	5.4
Masters	1	1.8
Doctorate	0	0
Total	56	100.0

Having 37.5% of tennis coaches with only secondary school as their highest educational level could be a disappointing fact for coach education leaders. Reasoning behind this fact stems from the point of view that all four countries of this sample are developing countries, and the ability to continue onto higher education is related to the availability of financial resources and final results in secondary school. It is, however, not to imply that having a degree would make one a better tennis coach. It should also not be neglected that the third largest group with a 21.4% did have an undergraduate degree qualification.

5.2.1.4 Years playing tennis

Table 8: Years playing tennis of respondents

Years Playing Tennis	N	%
0-3	9	16.1
4-10	13	23.2
11-20	21	37.5
20+	13	23.2
Total	56	100.0

Thirty seven per cent (37.5%) of the respondents have 11-20 years' experience in playing tennis. Having played the game for a long period could mean that the coach has more experience to draw upon and share with students. These coaches would also have more experiences to convert their tennis knowledge into coaching skills. The group of 0-3 years playing experience (16.1%) could be challenged in their participation in this coaching course as they have little tennis playing experience of which to draw.

As per Table 9 below the Kruskal-Wallis test was used to find any differences in responses from years playing tennis profile of the SERVQUAL dimensions of the pre-course and post-course satisfaction questionnaires.

Table 9: Non parametric test: Difference between pre-course expectations and post-course satisfaction questionnaires in terms of years playing tennis.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Reliability of service - Expectations is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.625	Retain the null hypothesis.
2	The distribution of Reliability of service - Quality is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.699	Retain the null hypothesis.
3	The distribution of Responsive of service deliverer - Expectations is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.195	Retain the null hypothesis.
4	The distribution of Response of service deliverer - Quality is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.387	Retain the null hypothesis.
5	The distribution of Assurance of service user - Expectations is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.178	Retain the null hypothesis.
6	The distribution of Assurance of service user -Quality is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.752	Retain the null hypothesis.
7	The distribution of Tangibles Expectations is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.286	Retain the null hypothesis.
8	The distribution of Tangibles Quality is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.072	Retain the null hypothesis.
9	The distribution of Empathy of service provider - Expectations is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.073	Retain the null hypothesis.
10	The distribution of Empathy of service provider - Quality is the same across categories of Years playing tennis.	Independent-Samples Kruskal-Wallis Test	.239	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

5.2.1.5 Highest Playing Level

Table 10: Highest playing level of respondents

Highest Playing Level	N	%
High School	2	3.6
Club	29	51.8
Provincial	7	12.5
National	11	21.4
International Junior	1	1.8
International Men/Women	5	10.7
International Senior	1	1.8
Total	56	100.0

Club playing level got the most representation from a playing level point of view with 51.8%. This is the most common structure for playing tennis worldwide and, therefore, would be deemed an appropriate level of play to take the ITF Starter-Beginner Coaching Course.

Having a club playing level, coaches would have a good foundation to develop their coaching skills. They would also have appropriate demonstration ability and give their students a good image of tennis strokes. In addition with a club playing level, they would be able to play comfortably with their students and be a good role model. Another positive fact was that the second largest group was the national playing level, 21.4%. These are players have played on a very high standard and would earn a lot of respect from their students. Tennis coaches with this playing level could have a positive influence on retaining players as their students would see them as a role model and may be motivated to emulate their coach.

5.2.1.6 Years of coaching

Table 11: Years of coaching of respondents

Years of coaching	N	%
0-3	29	51.8
4-10	15	26.8
11-20	10	17.9
20+	2	3.6
Total	56	100.0

Considering that the ITF Starter-Beginner Coaching course is the first level, it is not uncommon that the largest group with 51.8 % has only 0-3 years coaching experience. The next highest group was the 4-10 years group with 26.8% representation. This group has good experience and should be able to merge their current knowledge with that of the course. It is, however, not ideal that these coaches have been coaching with no formal education; and there is a possibility that they have developed inappropriate coaching skills that could influence the quality of their coaching.

As per Table 12 below the Kruskal-Wallis test was used to identify any differences in responses from the years of coaching profile of the SERVQUAL dimensions of the pre-course and post-course satisfaction questionnaires.

Table 12: Non parametric test: Difference between countries pre-course expectations and post-course satisfaction questionnaires in terms of years of coaching.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Reliability of service - Expectations is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.829	Retain the null hypothesis.
2	The distribution of Reliability of service - Quality is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.548	Retain the null hypothesis.
3	The distribution of Responsive of service deliverer - Expectations is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.701	Retain the null hypothesis.
4	The distribution of Response of service deliverer - Quality is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.163	Retain the null hypothesis.
5	The distribution of Assurance of service user - Expectations is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.855	Retain the null hypothesis.
6	The distribution of Assurance of service user - Quality is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.073	Retain the null hypothesis.
7	The distribution of Tangibles Expectations is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.661	Retain the null hypothesis.
8	The distribution of Tangibles Quality is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.587	Retain the null hypothesis.
9	The distribution of Empathy of service provider - Expectations is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.800	Retain the null hypothesis.
10	The distribution of Empathy of service provider - Quality is the same across categories of Years coaching recoded.	Independent-Samples Kruskal-Wallis Test	.942	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

5.2.1.7 Hours per week coaching

Table 13: Hours per week coaching

Hours per week coaching	N	%
1-5	25	44.6
5-10	5	10.7
10-20	9	16.1
20-30	12	21.4
30-40	2	3.6
40+	3	5.4
Total	56	100.0

As could be expected, almost half of the respondents (44.6%), only coach 1-5 hours a week. The profile of these coaches are assistant/understudy coaches striving to obtain additional coaching skills to make a bigger impact and potentially move up the ranks of coaches at their tennis facility or take the next step in coach education levels.

5.2.1.8 Geographic Location

Table 14: Geographic Location

Geographic location	N	% of total respondents (56)
Vietnam (Asia)	24	42.9
St Lucia (Caribbean)	12	21.4
Seychelles (Africa)	9	16.1
South Africa (Africa)	11	19.6
Total	56	100.0

Table 14 presents a summary of the geographical location of the respondents and the percentage that each country represents of the total number of respondents. The Vietnam course has nearly half representation (42.9%) which could influence the overall responses and feeling of the service quality of the ITF Starter-Beginner coaching course. Having all coaches that participated in the Vietnam course agree to be part of this research is the reason for its large representation.

5.3 PRE-COURSE EXPECTATIONS AND POST-COURSE SATISFACTION QUESTIONNAIRES

In both the pre-course expectations and post-course satisfaction questionnaires, the dimensions of the SERVQUAL model were presented in the same order for the respondents to reflect their perceptions. For each dimension, sub-items that give more understanding of each dimension relative to tennis coaching courses were given. In Tables 15-19, responses of the tennis coaches are represented in three sections (no/little, average, very/extremely) as a percentage of the total responses. A gap analysis was calculated by taking the difference between the respondent's expectations and satisfaction values. The value used to calculate the difference is taken from the very/extremely section according to SERVQUAL methodology. For each sub-item the difference was calculated and an assessment of above or below expectations was given. For some sub-items, the difference is zero and, therefore, an assessment of zero difference is given.

5.3.1 Reliability of service

Reliability of service is the first dimension of the SERVQUAL model. Under reliability of service, four sub-items were listed to gain more insight into the expectations and actual satisfaction of the respondents. The four sub-items included in this dimension are: credibility of tutors and instructions, tennis training course design, tennis coaching contexts, and organization of tennis coaching practices. Results of the difference between expectations and actual levels of satisfaction are shown in Table 15 below.

Table 15: Gap between reliability of service expectations and actual satisfaction

	Pre-course expectations of quality of service			Post-course satisfaction with quality of service			Difference/Gap
	No/Little Importance	Average	Very/Extremely Important	No-Little Satisfaction	Average	Very/Extremely Satisfied	
							*Above expectations **No difference *** Below expectations
Credibility of Tutors and Instructors	0%	3.6%	96.4%	0%	3.6%	96.4%	0**
Training Course Design	0%	7.1%	92.9%	0%	5.4%	94.6%	+1.7*
Tennis Coaching Contexts	1.8%	3.6%	94.6%	0%	7.1%	92.9%	-1.7***
Organization of tennis coaching practices	1.8%	1.8%	96.4%	0%	7.1%	92.9%	-3.5***

5.3.2 Responsiveness of service deliverer

The second dimension under the SERVQUAL model is the responsiveness of the ITF as service deliverer. Under the dimension of responsiveness of service deliver, five sub-items were included: pre-course organization, in-course organization, post-course organization, marketing of course, and quality of coaching course material. Results of the difference between expectations and actual levels of satisfaction are reflected in Table 16.

Table 16: Gap between responsiveness of service deliverer expectations and actual satisfaction

	Pre-course Expectations of quality of service			Post-course satisfaction with quality of service			Difference/Gap
	No/Little Importance	Average	Very/Extremely Important	No/Little Satisfaction	Average	Very/Extremely Satisfied	
							*Above expectations **No difference *** Below expectations
Pre course organization	3.6%	8.9%	87.5%	8.9%	5.4%	85.7%	-1.8***
In course organization	0%	7.1%	92.9%	0%	1.8%	98.2%	+5.3*
Post course organization	0%	10.7%	89.3%	1.8%	12.5%	85.7%	-3.6***
Marketing of course	0%	16.1%	83.9%	5.4%	17.9%	76.8%	-7.1***
Quality of coaching course material	1.8%	7.1%	91.1%	1.8%	5.4%	92.9%	+1.8*

5.3.3 Assurance of service user expectations and satisfaction

The third dimension under SERVQUAL model refers to assurance of service user. To obtain further clarity of this dimension, 5 sub-items were created: integration of prior learning, learning styles and strategies, education style and strategies, different methods of course delivery, and didactical styles and strategies. Results of the difference between expectations and actual satisfaction in this dimension are presented in Table 17.

Table 17: Gap between assurance of service user expectations and actual satisfaction

	Pre-course Expectations of quality of service			Post-course satisfaction with quality of service			Difference/Gap
	No/Little Importance	Average	Very/Extremely Important	No/Little Satisfaction	Average	Very/Extremely Satisfied	
							*Above expectations **No difference *** Below expectations
Integration of prior learning	1.8%	14.3%	83.9%	1.8%	7.1%	91.1%	+7.2*
Learning styles and strategies	0%	8.9%	91.1%	1.8%	5.4%	92.9%	+1.8*
Education styles and strategies	1.8%	3.6%	94.6%	1.8%	5.4%	92.9%	-1.7***
Different methods of course delivery	0%	5.4%	94.6%	1.8%	5.4%	92.9%	-1.7***
Didactical styles and strategies	1.8%	5.4%	92.9%	1.8%	5.4%	92.9%	0**

5.3.4 Tangibles

The fourth dimension associated with the SERVQUAL model refers to tangibles. The sub-items identified to give further information of this dimension relating to quality of service included: delivery of technical knowledge, delivery of tactical knowledge, and delivery of scientific tennis principles and knowledge. Results of the difference between expectations and actual satisfaction in this dimension are presented in Table 18.

Table 18: Gap between tangibles' expectations and actual satisfaction

	Pre-course Expectations of quality of service			Post-course satisfaction with quality of service			Difference/Gap
	No/Little Importance	Average	Very/Extremely Important	No/Little Satisfaction	Average	Very/Extremely Satisfied	
							*Above expectations **No difference *** Below expectations
Delivery of technical knowledge	0%	0%	100%	0%	5.4%	94.6%	-5.4***
Delivery of tactical knowledge	0%	0%	100%	0%	3.6%	96.4%	-3.6***
Delivery of Scientific tennis principles and knowledge	1.8%	1.8%	96.4%	0%	5.4%	94.6%	-5.4***

5.3.5 Empathy of service provider

The last dimension of the SERVQUAL model refers to empathy of service provider. The sub-items identified under this dimension included feedback opportunities and tutors creating a learning environment. Results are presented in Table 19.

Table 19: Gap between empathy of service provider expectations and actual satisfaction

	Pre-course Expectations of quality of service			Post-course satisfaction with quality of service			Difference/Gap
	No/Little Importance	Average	Very/Extremely Important	No/Little Satisfaction	Average	Very/Extremely Satisfied	
							*Above expectation **No difference *** Below expectation
Feedback opportunities	0%	3.6%	96.4%	0%	3.6%	96.4%	0**
Tutors created a learning environment	0%	0%	100%	1.8%	1.8%	96.4%	-3.6**

5.3.6 Summary of difference/gap between expectations of service and actual satisfaction with service quality.

Table 20 presents a consolidated summary of the five dimensions and sub-items from the pre-course expectations and post-course satisfaction questionnaire over the four courses. The figures in the expectations and satisfaction columns represent the percentage of the

respondents that marked very/extremely important on the pre-course expectations questionnaire or very/extremely satisfied on the post-course satisfaction questionnaire. A difference/gap column reflects the difference between the expectation and actual satisfaction values.

In the pre-course expectations questionnaire the respondents gave more importance to the following sub-items:

- Q15: Delivery of technical knowledge (100%)
- Q16: Delivery of tactical knowledge (100%)
- Q19: Tutors created a learning environment (100%)

In the post-course satisfaction questionnaire, the respondents were satisfied with the following sub-items:

- Q6: In course organization (98.2%)
- Q1: Creditability of tutors and instructors (96.4%)
- Q16: Delivery of tactical knowledge (96.4%)
- Q18: Feedback opportunities (96.4%)
- Q19: Tutors created a learning environment (96.4%)

As per Table 20, the differences in values between the expectations and actual satisfaction for each sub-item represents a gap analysis. This gap analysis value represents perceived service quality for each sub-item. The sub-items representing each dimension were added together to represent an overall value for each dimension either positive or negative. The dimension that recorded the highest value was ranked first and then the other four dimensions were listed in descending order. The rankings are given below:

1. Assurance of service user (+5.6%)
2. Reliability of service (-3.5%)
3. Empathy of service user (-3.6%)
4. Responsiveness of service deliverer (-5.4%)
5. Tangibles (-10.8%)

Values recorded from the pre-course expectations questionnaire for each sub-item were added together for their respective dimension and then an average obtained in order to give a ranking. Dimensions of the SERVQUAL model are given in ranking order below according

to the level of importance, given by the respondents as per the pre-course expectations questionnaire:

1. Tangibles (98.8%)
2. Empathy of service user (98.2%)
3. Reliability of service (95.1%)
4. Assurance of service user (91.4%)
5. Responsiveness of service deliverer (88.9%)

The same calculations made for the pre-course expectations questionnaire was also applied to the post-course satisfaction questionnaire in determining the ranking of dimensions from a satisfaction point of view. Dimensions of the SERVQUAL model are given in ranking order below according to the level of actual satisfaction, given by the respondents as per the post-course satisfaction questionnaire:

1. Empathy of service user (96.4%)
2. Tangibles (95.2%)
3. Reliability of service (94.2%)
4. Assurance of service user (92.5%)
5. Responsiveness of service deliverer (87.9%)

Table 20: Gap between expectations and satisfaction with quality of service.

Question	Expectations %	Satisfaction %	Difference/Gap %	Significance Above expectations No difference Below expectations
Reliability of service				
Q1: Credibility of tutors and instructors	96.4	96.4	0**	No difference
Q2: Tennis training course design	92.9	94.6	+1.7*	Above expectations
Q3: Tennis coaching contexts	94.6	92.9	-1.7***	Below expectations
Q4: Organization of tennis coaching practices	96.4	92.9	-3.5***	Below expectations
Total	95.1	94.2	-3.5 (2)	
Responsiveness of service deliverer				
Q5: Pre course organization	87.5	85.7	-1.8***	Below expectations
Q6: In course organization	92.9	98.2	+5.3*	Above expectations
Q7: Post course organization	89.3	85.7	-3.6***	Below expectations
Q8: Marketing of course	83.9	76.8	-7.1***	Below expectations
Q9: Quality of coaching course material	91.1	92.9	+1.8*	Above expectations
Total	88.9	87.9	-5.4 (4)	
Assurance of service user				
Q10: Integration of prior learning	83.9	91.1	+7.2*	Above expectations
Q11: Learning styles and strategies	91.1	92.9	+1.8*	Above expectations
Q12: Education styles and strategies	94.6	92.9	-1.7***	Below expectations
Q13: Different methods of course delivery	94.6	92.9	-1.7***	Below expectations
Q14: Didactical styles and strategies	92.9	92.9	0**	No difference
Total	91.4	92.5	+5.6 (1)	

Tangibles				
Q15:Delivery of technical knowledge	100	94.6	-5.4***	Below expectations
Q16: Delivery of tactical knowledge	100	96.4	-3.6***	Below expectations
Q17: Delivery of scientific tennis principles and knowledge	96.4	94.6	-1.8***	Below expectations
Total	98.8	95.2	-10.8 (5)	
Empathy of service user				
Q18:Feedback opportunities	96.4	96.4	0**	No difference
Q19:Tutors created a learning environment	100	96.4	-3.6***	Below expectations
Total	98.2	96.4	-3.6 (3)	

Table 21: Non parametric test: Difference between countries pre-course expectations and post-course satisfaction questionnaires.

Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Reliability of service - Expectations is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.296	Retain the null hypothesis.
2	The distribution of Reliability of service - Quality is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.306	Retain the null hypothesis.
3	The distribution of Response of service deliverer - Expectations is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.029	Reject the null hypothesis.
4	The distribution of Response of service deliverer - Quality is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.010	Reject the null hypothesis.
5	The distribution of Assurance of service user - Expectations is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.001	Reject the null hypothesis.
6	The distribution of Assurance of service user -Quality is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.069	Retain the null hypothesis.
7	The distribution of Tangibles Expectations is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.295	Retain the null hypothesis.
8	The distribution of Tangibles Quality is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.021	Reject the null hypothesis.
9	The distribution of Empathy of service provider - Expectations is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.676	Retain the null hypothesis.
10	The distribution of Empathy of service provider - Quality is the same across categories of Country.	Independent-Samples Kruskal-Wallis Test	.040	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

5.4 DISCUSSION AND INTERPRETATION OF QUANTITATIVE RESULTS

The interpretation of the data obtained from the pre-course expectations and post-course satisfaction questionnaires will start with the background profile of all of the participants in order to give a better understanding of the foundation of the responses made on the questionnaires. With this information, coach education leaders will be able to tailor-make their courses to the market and, therefore, provide better quality of service. Following the background profile, the five dimensions of SERVQUAL model and their sub-items are analysed and interpreted taking into consideration the four countries' tennis coaching courses responses.

5.4.1 Demographic profile (Tables 3,5,7,8,10,11,13)

The first part of the pre-course expectations questionnaire requested background information in order to obtain a profile of each respondent in the purposive sample of respondents of the ITF's Starter-Beginner Coaching Course. The rationale for requesting this information was to establish a profile of the purposive sample. This is in line with the approach of Koh, Mallet, and Wang's (2011) study of High Performance Basketball Coaches in Singapore. The authors stated that by understanding the coaches' sporting and coaching experience, it could assist in designing specific programmes to aid professional development which will in turn contribute to improving the quality of coaching work.

5.4.2 Gender profile (Table 3)

As per Table 3, the gender profile over the four courses does not reflect gender equality. In total, 76.8 % of the participants were male. Having all males for the Vietnam course and all these male respondents consenting to be part of this research had a significant influence on the one-sided male representation. This occurrence could be contributed to poor female tennis participation figures in tennis in developing countries. It can be deduced that if few females are playing the sport, not many will be making the transition to coaching tennis. In order to improve the number of female tennis coaches, the first step for National Tennis Federations is to improve their tennis participation figures through programs that get more females playing tennis, for example through schools programs. Once female participation figures have improved, a National Tennis Federation could start targeting, inviting and sponsoring female tennis coaches to attend ITF Starter-Beginner courses.

As per Table 4, a statistical analysis was made of the gender responses of all four countries, looking for differences in responses made by the respondents relative to the five dimensions of SERVQUAL and the pre-course expectations and post-course satisfaction questionnaires. For all values according to the Kruskal-Wallis test did not go below the norm value of 0.05.

5.4.3 Age profile (Table 5)

From an age perspective (Table 5), the majority of respondents (37.5%) were in the 20-30 years age group. For the future of tennis coaching, this fact is encouraging as it appears as if young individuals are taking up tennis coaching as a profession and realizing the importance of obtaining quality tennis coaching education. This undoubtedly puts more pressure on the

level of service quality that first level coaching courses, such as the ITF Starter-Beginner coaching course, provides to their Starter-Beginner tennis coaches. If young Starter-Beginner tennis coaches obtain a high quality and appropriate sport scientific foundation in their tennis coaching, they will be given appropriate coaching skills to attract and retain players in their programs. Having a combined representation of 55.4% for the two older age groups of 30-40 years and 40-50 years is interesting and is positive from having that mature influence when working with Starter-Beginner tennis players. Building and developing athlete-coach relationships has largely been known as an important trait to have as a coach and an indirect link to coaching efficacy (Sullivan *et al.*, 2012). Providing a positive quality of service to tennis coaches in all age brackets could be challenging because a modified teaching methodology (for example using scaled down equipment and courts) has only recently been introduced by the ITF in a worldwide campaign to improve tennis participation and retention figures. The older tennis coaches in the course learned tennis when this modified version of the game was not in existence and therefore would have a tougher time relating to this tennis coaching concept. However, their base of knowledge of this modified teaching methodology concept is low and would require extra assistance from tennis coaching courses to get them up to speed while at the same time observe a good service quality.

As per Table 4, using the Whitney-Man U test none of the values recorded were lower than the norm value of 0.05 and hence forth no real differences in responses were noted.

5.4.4 Highest education profile (Table 7)

Table 7 shows 37.5% of the respondents reached secondary school as their highest educational level. The ideal situation for Starter-Beginner tennis coaches would be to have an undergraduate degree in Sport Science or a similar qualification. There are no research findings to date that point to a coach being required to have a certain level of education in order to be a competent coach; however, a coach with a sport science degree would be able to apply sport science methods and principles to their coaching far more effectively. The fact that the majority of coaches attending the ITF's first level coaching course having only a Secondary School education is important and should be reflected in the design of tennis coaching courses, to ensure that sport scientific information is presented to increase quality of service.

5.4.5 Years playing tennis profile (Table 8)

Of the respondents of the four sampled ITF's Starter-Beginner courses, 37.5 % reported 11 to 20 years of experience in playing tennis (Table 8). Each group with 4-10 and 20+ years of playing experience had the same representation of 23.2%. The 0-3 years of playing experience had the least representation of 16.1%. From the point of view that limited knowledge would be drawn upon, having only a few years of playing experience would not be conducive to attending a coaching course. Presently the ITF does not have any conditions on how many years a coach should be playing in order to attend their first level coaching course. They do, however, require a certain playing level, however that is only mentioned as a recommendation and not a condition of participation. A recommendation to the ITF should be that participants who have only 3 years playing experience should consider taking a coaching course level below if the National Tennis Federation has one in place. Alternatively these coaches should be mentored by an experienced coach who has already been through the ITF coach education structure. Considering that a majority (37.5%) of respondents of the four sampled courses had 11 to 20 years' experience is positive as it can be assumed that they already have considerable knowledge of the game of tennis. This result correlates with the findings of Young, Jemczyk, Brophy, and Cote (2009) regarding developmental experience and learning activities of Canadian track and field from club, provincial, and national coaches and found that coaches had on average 11.8 years of athletic experience before starting their coaching career (Koh *et al.*, 2011)

Tennis coaches should have prior practical experiences in tennis and the addition of up-to-date teaching methodologies to be able to attract and retain tennis players. The ITF should identify all the required traits of a tennis coach who is able to attract and retain tennis players in their program and teach them in their first level coaching course. If the ITF is able to do this, it would go a long way to providing service quality to the coaches attending their course. If players have positive training experience through their coaches when they played, this could translate to positive impressions of the coaching profession and potentially attract players to coaching as a career once they have finished playing. Koh, *et al.*, (2011) in their research state that coaches and sport organizations should attempt to provide positive experiences to athletes to ensure they are motivated to stay in their sport and then become involved in coaching at a later stage.

As per Table 9, the Kruskal-Wallis test showed no differences in the responses from years playing tennis profile across the five dimensions of SERVQUAL and pre-course expectations and post-course satisfaction questionnaires.

5.4.6 Playing level profile (Table 10)

As per Table 10, respondents recorded playing tennis at club level as having the most representation (51.8%). Club level is the most common structure for playing tennis worldwide and, therefore, could be deemed as an appropriate platform from which to take the ITF Starter-Beginner Coaching Course. More than twenty per cent (21.4%) of participants in the purposive sample indicated playing on a National Level. Players on this level have played on a very high level and would have the respect of their students and could potentially cause their players to emulate their coach, which would require them staying in the sport.

5.4.7 Years coaching profile (Table 11)

The majority (51.8%) of participants in the ITF's Starter-Beginner Coaching course reported none to three years of coaching experience while 26.8% reported four to ten years of coaching experience (Table 11). These results are both positive and a concern for coach education leaders. From the positive point of view, the coaches who have coaching experience would have a solid foundation in coaching and would be able to build on that. Having prior coaching experiences to reflect upon will allow coaches to better internalise the information provided to them on the course. Ultimately, tennis coaches should be able to adapt themselves to different aspects of coaching tennis players. Having ability to adapt to changing and challenging environments of working with Starter-Beginner players is necessary to retain tennis players. This requirement is emphasized by Cote, North and Duffy, (2007) when they suggest that coaches need to meet the demands of their athletes.

The concern for coach education leaders centers around the question why it has taken them so long to take advantage of formal learning. It could be assumed that they are self-taught coaches. This concern is further compounded by the fact that 12 participants over the four purposive sample courses have been coaching for over 11 years without formal certification. This observation falls in line with the findings of Koh *et al.*, (2011) in their analysis of high performance coaches in Singapore. This tendency to coach without a formal sport-appropriate qualification was also noted in their study. The total number of hours spent participating in formal coach development training in Koh *et al.*'s (2011) research was significantly different,

which may be attributed to the range of opportunities available, coach motivation, and time constraints.

As per Table 12, the Kruskal-Wallis test showed no values below the value of 0.05 and therefore no differences in responses from years coaching tennis profile.

5.4.8 Hours per week coaching profile (Table 13)

Number of hours coaching per week correlated with the results recorded in the previous section 5.4.7 by having 44.6% of the participant coaching 1-5 hours per week (Table 13). Even having previous coaching experiences, though it might only be for a few hours per week, will still be helpful in processing the information given on the course. Ideally, coaching without certification should be under the guidance of the head coach of the tennis facility. The content of the ITF's Starter-Beginner coaching course should give the participants, particularly those with only limited experience, a good foundation to their coaching career. Stephenson and Jowett (2009) suggest that if coaches, in particular novice coaches, are put in coaching environments where they can observe their peers, they are able to transfer the knowledge to their own coaching. It is, however, imperative that the coach being observed must be an experienced coach. Should the novice coach be observing an inexperienced coach, there could be negative transfer of skills and knowledge that could impact negatively on the future development of their coaching careers and success (Stephenson & Jowett, 2009).

From the responses reflected in Tables 3,5,7,8,10,11,13, the typical profile of the coaches attending the ITF's Starter-Beginner are: male, aged 20-30, club playing level, have secondary school education, have 11 to 20 years player's experience, 0-3 years coaching experience and coach between 1 to 5 hours per week. The under-representation of female coaches presents a serious concern in terms of gender equality as well as role modeling for young, female tennis players. It could be a suggestion to the ITF to obtain the background information of each student taking their coaching courses so they are able to better meet their needs. This information could also be given to each of the tutors conducting the courses so they are aware of their background and fine tune the course to the requirements of the coaches. This could provide each tennis coach taking the course with better service quality.

5.4.9 Interpretation of the SERVQUAL Dimensions (Tables 15-19)

The method of analysis for the background profile will also be applied in the analysis of the dimensions and the sub-items. Each question related to the quality of service of the ITF Starter-Beginner coaching course was placed into three categories. The three categories for the pre-course expectations questionnaire were no/little importance, average importance, and very/extremely important. For the post-course satisfaction questionnaire, the three categories were the same as previously mentioned. For each sub-item and collectively for each of the five dimensions, the post-course satisfaction value was subtracted from the pre-course expectations value, thereby giving a gap analysis figure that could be positive, negative or zero. The figures used to obtain the gap analysis figure were taken from the very/extremely section as per the SERVQUAL methodology. All figures in Tables 15-19 represents the percentage of the number of responses for that section of the total number of respondents (N=56).

An average score for each dimension of the pre-course expectations questionnaire was calculated. Tangibles got the highest score of 98.8%, followed by empathy of service user at 98.2%, then reliability of service at 95.1%, assurance of service user at 91.4%, and last the responsiveness of service deliverer at 88.9%. This indicates that the respondents expected a high value on learning about the technical, tactical, and sport science principles of coaching tennis. These results are in stark contrast to a quality of service evaluation conducted by Kouthouris and Alexandris (2005) of the sport tourism industry in Greece. Their focus was on the outdoor recreation program in relation to the tourism industry, and tangibles ranked last in the pre-course expectations questionnaire with the other dimensions getting ranked in the following order: assurance of service user, empathy of service user, reliability of service, responsiveness of service deliverer, and tangibles. There is a similarity in both researches with empathy of service user and reliability of service being ranked second and third respectively.

Ranking the dimensions for the post-course questionnaire was done in the same way as the pre-course expectations questionnaire. The average score of the very/extremely satisfaction section was taken, a total made per dimension and then divided by the number of sub items. The ranking of the dimensions for the post-course questionnaire were different to the pre-course expectations questionnaire. The dimension empathy of service user was ranked the highest with 96.4%, followed by tangibles with 95.2%, then reliability of service, at 94.2%,

assurance of service user, 92.5%, and last, the responsiveness of service deliverer, 87.9%. Empathy of service user dimension improves from second place in the pre-course expectations questionnaire to first in the post course satisfaction questionnaire. The post-course satisfaction questionnaire dimension ranking of empathy of service user has the same outcome as the Kouthouris & Alexandris's (2005) research of Greece tourism. In their analysis of service quality of outdoor recreation program in Greece, the dimension of empathy of service user was also ranked the highest out of the five dimensions. For the post-course satisfaction questionnaire, the authors' research showed the following ranking: empathy of service user, responsiveness of service deliverer, assurance of service user, reliability of service deliverer, and tangibles (Kouthouris & Alexandris, 2005). For this particular study, the dimension of empathy of service user represents the tutor's skills in delivering a quality course. This dimension relates on how the tutors gave enough opportunities to the coaches to ask questions as well as their ability to create a learning environment. To have this dimension highly ranked is positive feedback to the ITF on the quality and effectiveness of the tutors for all four courses.

When performing a gap analysis between the values for each dimension between the pre-course expectations and post-satisfaction questionnaires, the values were analysed showing positive, negative, and zero values. A positive value shows that the respondents marked that sub-item higher on the post-course questionnaire than on the pre-course questionnaire, signifying actual satisfaction was received. A negative value represents the respondents' feelings that they did not receive satisfaction for this sub-item by marking it higher on the pre-course questionnaire than the post-course questionnaire. Some sub-items received a zero difference, therefore, signifying that the respondents gave the same value of importance to the satisfaction they received. The assurance of service user dimension came ahead with a positive value of +5.6%. The other dimensions were ranked in descending order in the following way: reliability of service, empathy of service user, responsiveness of service deliverer, and tangibles (Table 20). Although assurance of service user was rated second to last for both the pre-course expectations and post-course satisfaction questionnaires, it delivered the best service quality from a gap analysis point of view. According to its sub-items, this dimension has a lot to do with delivering the teaching methodology content of the course. The next ranked dimension reliability of service came in second with a -3.5%. This dimension consists of feedback on the tutors, training course design and coaching contexts. Positive feedback to the ITF came as the respondents feel they receive good service quality

by the ITF's choice of tutors and structure of the course. Third was empathy of service user. There are only two sub-items for this dimension, and they represent the ability of the course to make the participants feel like they were able to ask questions and learn as much as possible. For the participants to leave the course with that frame of mind of being able to ask questions creates a positive learning environment which is important and naturally provides that satisfaction and service quality to the participants. Even though responsiveness of service deliverer came in second to last, the values for each sub-item were very low and should be a concern to the ITF. The lowest value of 76.8% is seen in the sub-item of marketing of the course under the responsiveness of service deliverer dimension. To maximize the funding of all stakeholders of conducting such a course, the ITF should provide training and suggestions on how to improve the promotion and running of the course by the National Tennis Federation. Coaches form a crucial part in player development in each country, and National Tennis Federations should make the training of their coaches the highest priority. Finally, tangibles came in last place from a gap analysis point of view. Having it rated so high from an expectations point of view, it was hard to deliver from a satisfaction perspective. Technical and tactical knowledge forms a large part of coaching tennis. The expectations of the coaches were very high as playing the game involves good understanding of technique and tactics. All players wish to improve and the coach is responsible for that improvement in those two important areas. If the coach can provide that service quality in those two areas, it influences keeping that player in tennis and attracts players to take advantage of those coaching skills.

Overall, out of the nineteen sub-items representing the five dimensions of the SERVQUAL model, five sub-items had a positive value in terms of the difference between expectations and satisfaction; three sub-items had a zero difference, and twelve had a negative value. As previously mentioned in this section, a positive and zero difference between the pre-course and post-course questionnaire values show satisfaction was received by the respondents. Negative values reflect that no satisfaction was received as the post-course questionnaires were lower than the pre-course questionnaire. Zero difference shows satisfaction. When considering all nineteen sub-items whether positive, negative or zero, fifteen out of the nineteen values were below 5% (Table 20). The other four values were marginally above 5% with the largest difference being 7.2%. The highest values were seen in the pre-course expectations questionnaire with sub-items delivery of technical and tactical knowledge, and tutors created a learning environment having a 100% value. The highest difference positive

value of 7.2% was seen in the integration of prior learning sub-item and, therefore, representing the highest satisfaction level of the respondents. The lowest value of 76.8% was experienced in the post-course satisfaction questionnaire for the marketing sub item. The marketing sub-item did receive one of the highest differences from a negative point of view with 7.1%, and, therefore, representing the least amount of satisfaction from the respondents.

5.4.9.1 Reliability of Service (Table 15)

The reliability of service as per Table 15 has four sub-items (credibility of tutors and instructors, training course design, tennis coaching contexts, and organization of tennis coaching practices). For the first sub-item of credibility of tutors and instructors, there was no difference between the pre-course expectations and actual post-course satisfaction. For training course design, there was a marginal improvement from 92.9% to 94.6%. Unfortunately for both the tennis coaching context and organization of tennis coaching practices, a decrease of 1.7% and 3.5% respectively existed between expectations and actual satisfaction. This implies that coaches perceived they got less value than expected. Taking into consideration all four sub-items and the values of exceeding expectations and below expectations, not one sub-item had a difference of more than 5%. Reliability of service came in second from a gap analysis point of view showing that this dimension gave a good quality of service. For the ITF, this was a positive outcome as this dimension represents the confidence the participants had in their tutors and the overall training course and organization of tennis practices. Therefore, from a tutoring and course structure point of view, the respondents thought the ITF's tennis coaching course gave good service quality.

5.4.9.2 Responsiveness of service deliverer (Table 16)

As per Table 16 responsiveness of service deliverer represents five sub-items. Much of this dimension is to do with the marketing and organization of the coaching course. In the pre-course expectations, responsiveness of service deliverer was not rated very highly. Three of the sub-items are actually aspects of the course that the relevant National Tennis Federation is responsible for and not the ITF. Out of all sub-items, clearly marketing of the course gave the least quality of service with the highest negative figure of 7.1%. As a recommendation, the ITF should work closer with the host National Tennis Federation on marketing strategies in making sure coaches are aware of the benefits of attending a coaching course. Making service quality evaluation of the ITF's Starter-Beginner coaching course pertinent, information of the efficiency of the coaching course would be available and incorporated into marketing

strategies. In-course organization received a positive figure of 5.3% which is the second highest out of all questions. In-course organization is largely the responsibility of the tutors and builds on the positive tutor feedback reflected in the reliability of service dimension. Other sub-items as part of this dimension represent gap figures that are not large enough to declare a lack of service quality.

As per Table 16, for the dimension responsiveness of service deliver for the expectations and quality of service questionnaire, they recorded 0.029 and 0.010 respectively. Responsiveness of service deliverer relates a lot to the organization and marketing of the course. It would be understandable that there would be a difference in how each of the four National Tennis Federations would organize the course. All four countries are tennis developing nations; however, each tennis federation would be different in terms of the resources they have to put into the running of such a course and, therefore, reflect on their ability to organize and market the course.

5.4.9.3 Assurance of service user (Table 17)

This dimension is largely related to the method of delivery of the ITF's Starter-Beginner coaching course. The quality of this dimension is a combination of the course material provided by the ITF and the tutors' knowledge and method of delivery. The positive figure of 7.2% (Table 17) represents the highest positive figure out of all sub-items and, therefore, gave the highest actual satisfaction and service quality. The ability to incorporate the prior learning of all respondents into the course content is a challenging task and difficult to provide good service quality due to the variety of background knowledge and experiences of the coaches attending the course. Taking into consideration the participant's prior knowledge would make coaches feel comfortable in that formal learning setting and could promote increased transfer of knowledge. The other four sub-items (learning styles and strategies, education styles and strategies, different methods of course delivery and didactical styles and strategies) received difference values not more than 1.8% either positive or negative, signifying not that much range in service quality.

As per Table 21, the dimension assurance of user for the expectations questionnaire gave a below norm reading of 0.01. The expectations of the participants of the four countries showed a difference in the dimension assurance of user which represents teaching methodologies of coaching tennis. This shows the different levels of experiences and knowledge on coaching

tennis that the respondents represent. Teaching methodology forms an important part of coaching tennis and is mostly seen as a determining factor of your ability to coach.

5.4.9.4 Tangibles (Table 18)

Tangibles were given the most importance by the respondents in the pre-course expectations questionnaire (Table 18). Both technical and tactical knowledge was given the highest importance and grading. Technical and tactical knowledge constitutes a large part of coaching tennis; and even at the first coaching course level, a good fundamental understanding is imperative. This is an encouraging result as coaches agree that technical and tactical knowledge is important. As per the post-course satisfaction questionnaire, the gap difference values were all negative and thereby signifying a lack of service quality. Considering the lack of service quality for the tangibles dimension are a concern for the ITF as it was so highly rated by the respondents.

The dimension tangibles for the quality of service questionnaire gave a reading of 0.021 (Table 21). From a satisfaction point of view and across the four countries, there was a difference seen for the dimension tangibles which represents the technical and tactical knowledge of the coaching course. The justification for these values goes back to the observation of the varying profile of the participants taking part in the ITF's Starter-Beginner course. Considering it is the first level and that largely most of them have not attended a prior course, there would be differences of opinions on the satisfaction level experience in terms of such an important topic as technical and tactical knowledge. It would also show a difference in the transfer of knowledge facilitated by the tutors over the four courses, and, therefore, relate to the satisfaction levels of the participants.

5.4.9.5 Empathy of service user (Table 19)

As per Table 19, empathy of service user dimension has only two sub-items. Both sub-items gave opportunity to the respondents to give feedback, and judge overall learning environment that the tutors created. The sub-item "tutors created a learning environment" was given high importance by the respondents of 100%. The feedback opportunities sub-item had a zero difference between expectations and actual satisfaction, and the "tutors created a learning environment" sub-item had a negative figure of 3.6%. The dimension empathy of service user showed a zero and negative 3.6 % value for the two sub-items, showing that marginally service quality was not received by the respondents.

Dimension empathy of service user for the quality of service showed a value of 0.04 (Table 21), just falling below the norm of 0.05. Like tangibles, empathy of service provider is very much controlled by the service delivery of the tutors. Having different tutors over the four courses shows the inconsistency in the feedback made by the respondents. A recommendation of the ITF would be in dealing with this difference of satisfaction in tutor controlled aspect of the course; a suggestion would be to have more tutor training courses to allow for more consistency in delivery.

5.5 DISCUSSION AND INTERPRETATION OF QUALITATIVE RESULTS

According to the research methodology formulated for this research, respondents were invited to participate in the qualitative interview process following the quantitative questionnaires to obtain richer nuanced information on respondents' perception of the quality of service of the ITF Starter-Beginner Course. Fifteen coaches agreed to be interviewed from which 8 coaches were selected over the 4 courses. Equal gender representation was obtained in the qualitative phase of the study. Contact was initially made by email by the researcher to confirm their willingness to take part in the qualitative interview upon which a convenient time was scheduled to conduct the interview. At the start of each interview, the researcher thanked the coaches and then mentioned that all comments would be kept in strict confidence. This was in accordance with the informed consent letter and to ensure that participants would feel free to answer the questions to the best of their ability. The researcher also asked for permission to record each interview to ensure an accurate record exists.

The results from the qualitative phase of this research supports the results obtained from the quantitative phase, in terms of the ITF Starter-Beginner course providing a very good quality of service. The insight provided by participants in the interview supported their responses that they made in the quantitative questionnaires. Even though the respondents perceived a very good quality of service offered by the coaching course, they also made excellent recommendations on how to improve the course. This valuable feedback will be discussed in the following section and also in Chapter 6 under recommendations to the ITF. The interpretation of the feedback of the interviews will be given in order of the dimensions of the SERVQUAL pre- and post-course questionnaires.

5.5.1 Reliability of Service

After asking some background questions, the researcher asked for further clarification of the participant's response to the first SERVQUAL dimension of Reliability of Service. The sub-item questions for this dimension relate to the tutors, tennis coaching context, tennis training course design, and organization of tennis practices. The following responses reflect the perceptions of the respondents:

- “Quite educating, however, the things have changed since I first learned how to coach.”
- “Tutors came across very well, overall excellent.”
- “Tutors did a really good job, I felt I was able to ask any question.”
- “Without a doubt the tutors were very knowledgeable.”
- “Tutors could have given us more examples and then sent us out to practice instead of just giving information in the lecture room and then sending us out.”
- “The numbers of participants in our course were too much which resulted in other participants in my group asking me clarifying questions.”
- “The course required a little more balanced ratio of participants to tutors.”
- “In group work the feedback that was given was too much done by fellow participants instead of the tutor, which led to conflicting interpretations.”
- “The Head Tutor is very knowledgeable, but I think to some people he might come across as cold. If you showed interest in the Head Tutor, he would show interest back to you. However, if you asked him a question, he would answer. I can see how people might think he is difficult.”
- “The course offered a lot of information, quite a lot of information considering my coaching background. Maybe some of the other coaches with more experience might feel the information was appropriate.”
- “Content of the course was very good; I am very satisfied.”

Although the above responses for the dimension of Reliability of Service support the finding of an overall, good quality of the course, some negativity is reflected regarding the tutors. This suggestion of having a better tutor to participant ratio should be a recommendation to the ITF in trying to improve the service quality of the Starter-Beginner course.

5.5.2 Responsiveness of Service Deliverer

Under this dimension, sub-items were provided to gain more insight about pre-, during, and post-course organization, marketing of course, and quality of course material. The qualitative interview probed deeper into these aspects. Responses included:

- “The organization of the course was very good and well done.”
- “This was very well-handled, and we received the books well in advance so we could read and be prepared for the course.”
- “The manual was very well laid out and easy to read and provided me a lot of the information that I was seeking to gain from the course.”

The feedback from the participants for this section was positive, and it can be deducted that a good quality of service was achieved. Although marketing of the course did not receive the highest of quality of service in the quantitative questionnaire, there was no reference made to this during the qualitative interviews.

5.5.3 Assurance of Service User

The Assurance of Service User out of the five SERVQUAL model dimensions recorded the highest quality of service from the quantitative questionnaires. This dimension focused on learning and education styles and strategies and different methods of course delivery. Qualitative interview responses are reflected below:

- “The tutors would give multiple coaching scenarios and then methods on how to deal with them. If this was not written down, it might have been misinterpreted and not understood.”
- “I really appreciated the Play Tennis concept (modified rules teaching methodology) as all that requires is a flat surface to conduct sessions with beginner players.”
- “The teaching methodology section of the course I really liked and am now adopting those principles in my coaching, and I am a more confident coach because of it.”
- “I did not realize this until the course of the need to get away from basket feeding and not to have the children line up but to have them from a class organization point of view playing with each other. I have implemented this into my coaching and find it much easier to coach.”
- “I learned a lot; I am very glad I took the course.”

The above responses confirm the high scores recorded in the quantitative questionnaires. To have the coaches learn and implement the principles of the course into their coaching identifies the effectiveness of the coaching course and its overall service quality.

5.5.4 Tangibles

The Tangible dimension was rated extremely high from an expectations point of view by the participants in this study. This is understandable as having knowledge about tactics and technique forms a large part of being a tennis coach. According to the quantitative data, it was rated last out of the five dimensions on actual satisfaction. Listed below are some of the responses from the qualitative interview:

- “I am using the technical and tactical information I got from the course in my lessons after making adaptations.”
- “I felt quite comfortable with my technical and tactical knowledge coming into the course as I feel my playing level is quite strong. However, the new knowledge I gained has made me realize that I was not playing the right way; and with changes I am actually playing on a higher level.”
- “It is important to get the right technical knowledge as the game today one sees the professional players playing with the recommended grips. Information from the course has improved my own playing level, which I did not expect.”

Interviewed respondents had strong expectations of the Tangibles dimension, yet it was not reflected in the satisfaction questionnaire. Comments provided when asked for further insight suggested an appropriate quality of service, so much so that one coach felt that he/she actually improved his/her own level of play with the knowledge received from the course.

5.5.5 Empathy of Service Provider

This dimension focused on two aspects: Did the tutors give opportunity to the coaches to obtain and give feedback, and did the tutors create a learning environment? Responses included:

- “There were numerous opportunities to ask questions.”
- “Tutors did a good job in creating a learning environment; however, some other participants were well below par and felt they brought the rest of us down with them.”
- “Tutors did a very good job of creating a learning environment.”

Apart from the comments regarding the other students which will be explained in further detail in the comments section, the feedback is positive for this dimension. This dimension largely assesses the ability of the tutors providing a good quality of service.

5.5.6 Additional comments and suggestions from respondents

Table 22 below lists all of the questions and answers posed to the respondents that provide additional information to this particular research.

Table 22: Question and answers from interviews with respondents

Q1: How did you feel about the grouping of the participants for practical practice sessions?
A1: “There were a few of the participants who should not have been there as their level was too low, and they were asking me questions the whole time, as they were scared to ask the tutors.”
Q2: What could be improved in order for the coaching course to offer better service quality?
A2: “Was well organized and very much appreciated the course, happy with everything.”
Q3: Has the course improved your coaching?
A3: “Yes, definitely.”
Q4: Please grade the coaching course in your own words?
A4: “Very good, if the suggestion I made about the overall level of participants was taken into consideration, it could have been excellent.”
A4: “Quite satisfied with the skills obtained from the course.”
A4: “Suggestion would be to have more opportunities prior to the course; or once the course has just started, for the tutors to make an overall assessment of the playing level of each participant; and if they did not make the grade, should not be allowed to participant in the course.”
Q5: If you could look back prior to starting the coaching course, what was the most important thing you wanted the course to deliver?
A5: “I would like to improve and get more information on my analytical ability of the tennis strokes.”
Q6: Follow up question to Q5: Did the coaching course give you service quality on your analytical ability in tennis strokes?
A6: “Yes, I did learn, was not a focus but was covered 80% of the way.”

Q7: What could have been done better with the coaching course to give you more service quality?
A7: “I think that more practical sessions with actual beginner children could have been staged prior to the actual assessment.”
Q8: Was the duration of the course too long?
A8: “There were varying skills of participants on the course; some sessions went on too long which catered for the lower skill coaches, however, not so much for the coaches with better skills.”
Q9: How was the modified rules program incorporated in to the course?
A9: “The tutors taught us how to match the different colour balls to the different levels of player, which was a large part of our assessment matching ball colours to level of players.”
Q10: Did the course provide you adequate knowledge or skills in retaining players?
A10: “Yes, definitely by incorporating the modified rules program in our coaching.”
Q11: If you had to change anything about the course, what would you change that could affect the overall quality of service of the course?
A11: ‘Too many participants relative to number of tutors. You felt like you were rushed. I could have got a bit more practical information coming from the tutors instead of fellow participants. The federation should limit the number of participants; if the course is fully subscribed then they would have to wait and take the next course.’
Q12: Did you learn a lot from the course?
A12: “Yes, however, the numbers on the course could be less and the Head Tutor more diplomatic.”
Q13: Did the course deliver on your expectations?
A13: “Definitely did. I felt I was difficult because of my lack of experience as a coach; in the assessment to try and improve a child, I did not know that well in 20 minutes was a challenge considering my limited background knowledge.”

The aforementioned questions were asked to gain further insight. They could not be associated with the dimensions of SERVQUAL model; however, it was felt they should be mentioned. The feedback to the questions proved to be valuable, hence the inclusion under additional comments section.

5.6 CHAPTER CONCLUSION

To enable an appropriate evaluation of the quantitative data, the responses made by the respondents were put into three categories. A percentage was then made from those responses in their respective categories. From those percentage values, it was evident how the sub-items and dimension fared from a service quality point of view. A ranking of the dimensions was achieved from the values of the pre-course questionnaire, post-course satisfaction questionnaire, and the difference between the expectations and actual satisfaction questionnaires. The respondents as per the pre-course expectations questionnaire, gave more importance to the Tangibles dimensions. From the post-course satisfaction questionnaire the respondents felt the dimension Empathy of Service User gave the most actual satisfaction. Comparing the difference in values from the expectations and the actual satisfaction from both questionnaires, the dimension Assurance of service user was ranked first.

Taking into account each sub-item, a number of sub-items received 100% values in the pre-course expectations questionnaire; they were delivery of technical and tactical knowledge, and tutors created a learning environment. For the post-course satisfaction questionnaire, the highest ranked sub-item was in-course organization. From a gap analysis perspective and representing the best service quality from all of the sub-items was integration of prior learning. Representing the worst quality of service as a sub-item was marketing of the course.

After analysis of the quantitative data of this research, qualitative data was sought through personal interviews. The findings from the qualitative data supported the quantitative data that the ITF Starter-Beginner course offers service quality to its coaches. Additional comments were recorded and were presented in this chapter and also provided in the following chapter under recommendation to the ITF.

CHAPTER 6 CONCLUSIONS, RECOMMENDATIONS AND IMPLICATIONS FOR FURTHER RESEARCH

6.1 INTRODUCTION

In Chapter 1 the significance of the tennis coaches' role in attracting and retaining tennis players in the game was stated and justified. The knowledge that these coaches obtain from first level coaching courses (formal learning) provides the basis for their coaching skills. Therefore, it is paramount that the course they partake in has the appropriate service quality if these coaches want to safeguard the future of the game and also promote their business as a tennis coach. The International Tennis Federation (ITF) has an important role to play in worldwide coach education. Considering the representation of having 80 countries using their coach education syllabi, their role in coach development is significant. In addition, over the past few years a new player development programming that looks at introducing beginner players to a modified version of tennis has been developed by the ITF. The purposes are to facilitate their ability to play the game of tennis right from the start and retain them in the sport. Considering these two points, doing a quality of service evaluation of the ITF's first level coaching course (Starter-Beginner) would provide useful feedback on how the course was impacting the ability of coaches to attract and retain players in their program. The research question of this study was presented as:

How do tennis coaches who participate in the International Tennis Federation's Starter-Beginner Coaching Course value the service quality of these courses?

The research instrument used for this study's service quality evaluation was the SERVQUAL model. On the basis of this model, two questionnaires were created and utilized. In the first questionnaire, a pre-course expectations questionnaire, the participants of the course would rate their importance of the dimensions and sub-items of the coaching course. Completed by the participants at the end of the course, the post-course satisfaction questionnaire asked for their perception of satisfaction that they received from the dimensions and sub-items of the coaching course. A gap analysis was completed to see if any shortcomings arose that could be used to present the findings of this research. In addition, to obtain further insight to their service quality experiences, participants consented to interviews.

The primary and secondary aims of this research were presented in Chapter 1:

Primary Objective

- The primary aim of this investigation is to assess satisfaction of tennis coaches with service quality of the ITF's Starter-Beginner course.

Secondary Objectives

- Evaluate the expectations of service quality of tennis coaches attending the ITF's Starter-Beginner course.
- Determine the actual satisfaction with service quality of tennis coaches attending ITF's Starter-Beginner course.
- Identify gaps between the expectations and the coaches' experience of ITF's Starter-Beginner course.
- Make recommendations to the ITF on potential changes to the ITF's Starter-Beginner course to facilitate service quality of courses to retain tennis players and coaches.

6.2 CONCLUSION

Analysis of large scale sport coach education programmes are very limited and establishing references to other research has proven to be a challenge to guide this research. It is hoped that this research can prove to be a foundation for future research in this crucial aspect of coach development.

- Sub-items delivery of technical and tactical knowledge, and tutors created a learning environment were recorded as the most importance to the respondents.
- Sub-items marketing of the course and integration of prior learning were not perceived as important to the respondents and were given the lowest grading.
- Sub-item in-course organization was rated the highest actual satisfaction received by the respondents.
- Sub-item marketing of the course was rated the lowest actual satisfaction received by the respondents.
- Sub-item that gave the most quality of service by way of gap analysis was integration of prior learning.
- Sub-item that gave the least quality of service from comparing the difference between expectations and importance was marketing of the course.
- Dimension assurance of service user was ranked highest by the respondents when comparing the difference between expectations and satisfaction.

- Dimension tangibles were ranked the lowest by the respondents when comparing the difference between expectations and satisfaction.
- The sub-items delivery of technical knowledge under performed as it was given the highest importance and low satisfaction representing nearly one of the lowest differences in values.
- Sub-items credibility of tutors and instructors, didactical styles and strategies, and feedback opportunities were given an equal rating of importance and satisfaction.
- The ITF's Starter-Beginner Coaching Course provides a high level of service quality to its participants.
- Through their coach education courses the ITF is assisting coaches from a transfer of coaching knowledge point of view to attract and retain more players in their programmes.

6.3 RECOMMENDATIONS TO THE ITF

Based on the preceding conclusions the following recommendations are made.

- Obtain more detailed background information on each participant to be passed onto each tutor to create individualized programs to meet needs and expectations of those taking the course. The background information that would be needed is similar to the information taken in this research.
- Ensure more practical trial assessment sessions with students are done prior to main assessment practical session in ensuring the coaches are more confident going into the assessment part of the course.
- Ensure that the education material of the course is given to all participants at least two weeks in advance to the course starting, to facilitate better understanding and giving better opportunities to the participants in asking more pertinent questions. This will also prepare them better for the written assessment part of the course.
- Reduce the tutor to participant ratio from 12:1 to 10:1; this will facilitate a better quality of service and give the participants more access to the tutors.
- Grouping participants according to similar coaching levels would be recommended.
- Provide guidelines and suggestions to the National Tennis Federation on how to better organize and market the course in maximizing the investment made and get the best and most deserving coaches attending the course.

- Add a technology section to the course to inform participants on how to use technology and the internet in becoming a better Starter-Beginner tennis coach.
- The subject of identification is an important concept that should be taken into consideration. There is an underlining importance of making sure prospective and current coaches are aware of the need to certify themselves. In coaching circles, there are many coaches termed “pirates” who are coaching without any previous training or certification. The ITF and National Federations should be aware of this and make it a priority to make sure as many coaches as possible are certified. Should the coaches make identification with the ITF/National Federation coach education syllabi, then this would go a long way to achieving this important goal of certifying and applying coaching principles that help retain players in their program.

6.4 LIMITATIONS TO THE RESEARCH

Overall, there seemed to be two identified limitations to this study.

- The first is the administration of the questionnaires by the Head Tutors. Even though verbal communication was made with 3 out of the 4 Head Tutors, there were a number of mistakes made by the participants when completing the questionnaires. It is not to say the work of the Head Tutors is not appreciated; however, if a little more attention to detail was considered, a larger sample would have been achieved and add more credibility to this research. A larger sample would add more confidence in the results; however, it would not have changed the outcome of the research.
- A few responses recorded a score of five on the Likert scale for all questions both for the pre-course expectations and service quality satisfaction questionnaires. To the researcher, this appears that not much thought process went into the participants giving the appropriate rating of their expectations and satisfaction even though they had consented and had an option to be part or not part of the research. One could presume that for at least one or two of the questions, not the highest number would be recorded.

6.5 IMPLICATIONS FOR FURTHER RESEARCH

The research completed in this study raised several questions in terms of service quality associated with coach education; therefore, it is recommended further research is done in the following areas:

- Research of the ITF Coach Education Syllabi as a whole encompassing the three different levels and the regional and worldwide workshops that take place every two years.
- Further insight into the formal learning opportunities presented by Grand Slam Tennis Nations.
- Transfer of knowledge of coach education courses relative to the number of tutor contact hours.
- The difference in transfer of knowledge between tutor contact hours and online learning for tennis coaches.
- The amount of playing experience and coaching experience required in order to take and be successful in a first level coaching course.
- Conduct a service quality evaluation of starter-beginner coaches by way of an expectations and satisfaction questionnaire of coaches' students to obtain more information on how the coaches do in their lessons by attracting and retaining players in their program.

The above suggestions fall in line with the need for more research in coach development coming from a point of view that coaches assist athletes to stay in the sport and also enhance their performances.

6.6 FINAL STUDY CONCLUSION

This particular study looked at evaluating the service quality of the ITF's Starter-Beginner Coaching Course in making sure they were impacting coaches from a coaching knowledge point of view, in being able to attract and retain players in their program. Marketing of the coaching course was not rated as an importance to the respondents and also did not reflect favourably from a service quality point of view. Technical and tactical knowledge were given a perfect grading of importance by the respondents however, comparing all the other feedback of the sub-items did not deliver from a service quality perspective. Sub-items in-course organization and integration of prior learning were stand outs from a service quality

stand point. Overall, the findings of this research show that the coaches felt they were given an appropriate level of service quality by the ITF's Starter-Beginner Coaching Course.

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Appendix A



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Ref. KD/11

Valencia, Spain
5 October 2011

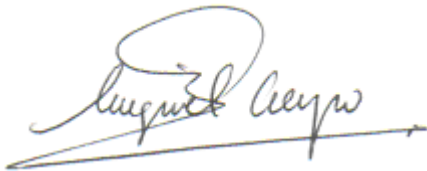
University of Pretoria: The Research Proposal and Ethics Committee (Faculty of Humanities)

The International Tennis Federation (ITF) gives Mr. Karl Davies full permission to use the ITF Beginner-Starter course that are staged around the world in his research of understanding the perceptions of coaches attending coaching courses and the quality of service they provide.

We are happy to work with Mr. Davies and provide him the necessary assistance in obtaining the data he needs to analyse. The two questionnaires he has for the purpose of his analysis will be sent to the Head Tutor of each course, and then returned to us at our offices in Valencia, Spain and then forwarded on to Karl.

If there is any further information or clarification required I would be more than happy to assist.

Kind regards,

A handwritten signature in black ink, appearing to read 'Miguel Crespo', with a long horizontal line extending from the end of the signature.

Miguel Crespo, PhD.
Development Research Officer
Tennis Development

Cc Cristina Hyde- Vaamonde, ITF Coaching / Development Department
Merlin van de Braam, ITF Coaching / Development Department

Appendix B



Participant Consent Form-SERVQUAL Questionnaire

Measuring service quality of international tennis coaches education training courses

Please read the following statements and initial each corresponding box if you wish to participate in the SERVQUAL questionnaire component of this study

1. I confirm that I have read and fully understood the plain English language statement outline that provided details about the nature and purpose of the research study.

2. I understand that my participation in this research study is voluntary and that I have the right to withdraw from the project at any stage and reserve the right not to answer any questions of the SERVQUAL questionnaire.

3. I understand that during any analysing or reporting of data obtained from SERVQUAL questionnaire, the researcher will maintain all my responses as strictly confidential and anonymous and will not reveal my identity.

4. I agree to have my responses made to SERVQUAL questionnaire, used as data for the purpose of this research.

5. I confirm that I may request to examine SERVQUAL questionnaire to ensure that they are an accurate representation of my statements and comments and may alter any comments or answers if so desired.

6. I understand that a copy of a summary of the research findings will be provided to me on request at the conclusion of the project.

7. I understand that this study may be published in professional journals and may be used for educational purposes and/or presentations.

8. I confirm that all procedures relating to the research study have been explained to me and that all my questions have been thoroughly answered.

I confirm that I have read and personally initialed this consent form and have been provided with the opportunity to ask questions, which I have subsequently received satisfactory answers for. I therefore confirm my consent to participate in the SERVQUAL questionnaire component of this research study.

Participant's name (please print): _____

Signature: _____ Date: _____

I confirm that the research participant has read this consent form in addition to a plain English language statement/letter of invitation outlining details about the nature, purpose and procedures of the study. All questions were answered to the participant's satisfaction.

Researcher's name (please print): _____

Signature: _____ Date: _____



Participant Consent Form-Interview

Measuring service quality of international tennis coaches education training courses

Please read the following statements and initial each corresponding box if you wish to participate in the interview and observation component of this study

1. I confirm that I have read and fully understood the plain English language statement outline that provided details about the nature and purpose of the research study.

2. I understand that my participation in this research study is voluntary and that I have the right to withdraw from the project at any stage and reserve the right not to answer any questions.

3. I understand that during any analysing or reporting of data obtained from interviews, observations or any other discussions in relation to the research study, the researcher will maintain all my responses as strictly confidential and anonymous and will not reveal my identity.

4. I agree to have my words, any of my written material used as data for the purpose of this research.

5. I confirm that I may request to examine the transcripts of my interviews to ensure that they are an accurate representation of my statements and comments during the interview procedures and may alter any comments or answers if so desired.

6. I understand that a copy of a summary of the research findings will be provided to me on request at the conclusion of the project.

7. I understand that this study may be published in professional journals and may be used for educational purposes and/or presentations.

8. I confirm that all procedures relating to the research study have been explained to me and that all my questions have been thoroughly answered.

I confirm that I have read and personally initialed this consent form and have been provided with the opportunity to ask questions, which I have subsequently received satisfactory answers for. I therefore confirm my consent to participate in the observation and interview component of this research study.

Participant's name (please print): _____

Signature: _____ Date: _____

I confirm that the research participant has read this consent form in addition to a plain English language statement/letter of invitation outlining details about the nature, purpose and procedures of the study. All questions were answered to the participant's satisfaction.

Researcher's name (please print): _____

Signature: _____ Date: _____

Appendix C

**Expectations of
Tennis Coaches
Participating in ITF
Starter-Beginner
course**

PART 1. BACKGROUND INFORMATION

INSTRUCTIONS:

Please circle your response for the questions below. For example:

1. GENDER: Male Female

QUESTIONS:

1. GENDER: Male Female

2. AGE: 15-20 20-30 30-40 40-50 50+

3. HIGHEST EDUCATIONAL QUALIFICATION:

Secondary School Certificate or Diploma Trade/Apprenticeship

Undergraduate degree Postgraduate degree Masters Doctorate

4. YEARS PLAYING TENNIS: 0-3 4-10 11-20 20+

5. HIGHEST LEVEL OF PLAY:

High School Club Provincial National

International Junior International Men/Women International
Senior

6. YEARS OF COACHING: 0-3 4-10 11-20 20+

7. HOURS PER WEEK COACHING: 1-5 5-10 10-20 20-30 30-40 40+

8. HAVE YOU TAKEN THIS COURSE BEFORE?

YES

NO

9. IF YES HOW LONG AGO DID YOU TAKE IT?

_____ MONTHS

INSTRUCTIONS:

For questions 10 and 11 please write in the appropriate response

10. COACHING QUALIFICATION THAT YOU HAVE PREVIOUSLY COMPLETED:

11. COUNTRY WHERE YOU CURRENTLY COACH:

For questions 12 and 13 please indicate your response by placing the appropriate number in the box provided

12. AGE GROUP(S) MOST TIME SPENT COACHING PER WEEK:

(Please number in order from most to least e.g. 1, 2, 3 etc; if time is equal use the same number e.g. 1, 2, 2, 3, 4 etc; or not at all – use an X)

4-7

10-12

15-17

7-10

12-15

17+

13. LEVEL(S) MOST TIME SPENT COACHING PER WEEK:

(Please number in order from most to least e.g. 1, 2, 3 etc; if time is equal use the same number e.g. 1, 2, 2, 3 etc; or not at all – use an X)

Beginner

Intermediate

Advanced

Elite Professionals

EXPECTATIONS OF TENNIS COACHES PARTICIPATING IN ITF STARTER-BEGINNER COURSE

PART 2: EXPECTATIONS QUESTIONNAIRE

EXPECTATIONS OF TENNIS COACHES' IMPORTANCE GIVEN TO THE DIMENSIONS OF QUALITY OF SERVICE

INSTRUCTIONS

Please circle the appropriate number that best reflects the importance you give, to the below aspects of the ITF's Starter-Beginner course.

1-Not important

2-Little importance

3-Average

4-Very important

5-Extremely important

Sample

Communication	1	2	3	4	5
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DIMENSIONS OF THE ITF STARTER-BEGINNER COACH

Reliability of service					
Credibility of tutors and instructors	1	2	3	4	5
Tennis Training course design	1	2	3	4	5
Tennis coaching contexts	1	2	3	4	5
Organization of tennis coaching practices	1	2	3	4	5
Responsive of service deliverer					
Pre course organization	1	2	3	4	5
In course organization	1	2	3	4	5
Post course organization	1	2	3	4	5
Marketing of course	1	2	3	4	5
Quality of coaching course material	1	2	3	4	5
Assurance of service user					
Integration of prior learning	1	2	3	4	5
Learning styles and strategies	1	2	3	4	5
Education styles and strategies	1	2	3	4	5
Different methods of course delivery	1	2	3	4	5
Didactical styles and strategies	1	2	3	4	5
Tangibles					
Delivery of Technical knowledge	1	2	3	4	5
Delivery of Tactical knowledge	1	2	3	4	5
Delivery of Scientific tennis principles and knowledge	1	2	3	4	5
Empathy of service provider					
Feedback opportunities	1	2	3	4	5
Tutors created a learning environment	1	2	3	4	5

A Survey of the Quality of Service experienced by Tennis Coaches Participating in ITF Starter-Beginner course

NAME: _____

QUALITY OF SERVICE EXPERIENCED OF TENNIS COACHES PARTICIPATING IN ITF STARTER-BEGINNER COURSE

PART 3: QUALITY OF SERVICE QUESTIONNAIRE

QUALITY OF SERVICE EXPERIENCED BY TENNIS COACHES COMPLETING THE ITF STARTER-BEGINNER COACHING COURSE

INSTRUCTIONS

Please circle the appropriate number of the dimensions of quality of service that best describes your satisfaction of the knowledge provided by the ITF Starter –Beginner course

1-No satisfaction

2-Little satisfaction

3-Average satisfaction

4-Very satisfied

5-Extremely satisfied

Sample

Communication	1	<input checked="" type="radio"/>	3	4	5
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DIMENSIONS OF THE ITF STARTER-BEGINNER COURSE

Reliability of service					
Credibility of tutors and instructors	1	2	3	4	5
Tennis Training course design	1	2	3	4	5
Tennis coaching contexts	1	2	3	4	5
Organization of tennis coaching practices	1	2	3	4	5
Responsive of service deliverer					
Pre course organization	1	2	3	4	5
In course organization	1	2	3	4	5
Post course organization	1	2	3	4	5
Marketing of course	1	2	3	4	5
Quality of coaching course material	1	2	3	4	5
Assurance of service user					
Integration of prior learning	1	2	3	4	5
Learning and education styles and strategies	1	2	3	4	5
Education styles and strategies	1	2	3	4	5
Different methods of course delivery	1	2	3	4	5
Didactical styles and strategies	1	2	3	4	5
Tangibles					
Delivery of Technical knowledge	1	2	3	4	5
Delivery of Tactical knowledge	1	2	3	4	5
Delivery of Scientific tennis principles and knowledge	1	2	3	4	5
Empathy of service provider					
Feedback opportunities	1	2	3	4	5
Tutors ability to create a learning environment	1	2	3	4	5

PART 4: ADDITIONAL COMMENTS

Additional comments observations?

Would you be willing to further participate in Part B of this research project?

Part B of this research project consists of conducting interviews.

The responses of your two questionnaires will be analysed and the results will be used to gain further insight. In addition, and as all comments, opinions and views in relation to your background and experiences in tennis are highly valued I am planning to conduct an interview. This interview will be approximately 30 minutes in length (or longer if you wish to share additional insights and information). All recorded information as well as any information you share during the interview will be treated in the **strictest confidence**. **The content and scope of the interview questions will elaborate on answers provided in the written questionnaire.**

Please circle your willingness to be involved in Part B of the research project.

NO

YES If yes, please provide your name and a contact telephone number, email address, or skype address below.

Thank you for your time and consideration.

Karl Davies [karlmd17@gmail.com]