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# Measuring service quality of international tennis coach education courses

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#### **Abstract**

Customer satisfaction with the quality of sport services contributes significantly to the sustained competitiveness of sport organisations, and customer retention. This study measured the perceived service quality of the International Tennis Federation (ITF) Starter-Beginner coach education courses. A purposive sample of four courses and 56 tennis coaches was drawn. A precourse and post course SERVQUAL questionnaire together with a biographical questionnaire were administered. The findings of the current study suggest that tennis coaches are dissatisfied with four of the five SERVQUAL dimensions of service quality namely the reliability of the services, the responsiveness of the ITF as service provider, the tangibles of the course as well as the empathy of the ITF. Tennis coaches expressed overall satisfaction in the service dimension of assurance of service users. Satisfaction with service quality differed across the four different geographical course locations suggesting dissatisfaction with personal interaction between head tutors and participants. This study should be regarded as exploratory research in the area of tennis coach education service quality. Further research should determine the reliability and validity of the SERVQUAL instrument in sport coach education contexts.

**Keywords:** Service quality, SERVQUAL, coach education, tennis.

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## Introduction

Research studies suggest a relationship between the quality of sport coaching, the success and satisfaction of sport participants and ultimately their willingness to stay in a sport (Santos, Mesquita, Garca & Rosado, 2001; Crespo, McInerney & Reid, 2006; Kyle, Theodarikis, Karageorgiou & Lafazani, 2010; Nuviala, Grao-Cruces, Perez-Turpin & Nuviala, 2012). Although quality of sport coaching is not the only intervening variable in the continued involvement in it is recognised as a significant contributing factor to the development and retention of athletes (Misener & Danylchuk, 2009) and the development and growth of sport organisations' coach education strategies (Perez, Minguet & Freire, 2010). As modern day sport increasingly operates in the business sector, customer satisfaction with sport products and services contributes significantly to

sustained competitiveness of sport organisations (Perez et al. 2010). The competency and ability of sport coaches is in general a function of the quality of coach education courses within a particular sport. In this regard Erickson, Bruner, MacDonald and Cote (2008) emphasised the relationship between the quality of sport coach education courses and a sport coach's coaching ability. The latter researchers advocated a consistent drive to improve the quality of sport coach education courses through measuring and evaluating perceptions of coaches attending these courses on the perceived quality of the received service (development of sport coaching knowledge and skills).

Results from studies on quality of sport coach education courses (Nelson & Cushion, 2006; Wright, Trudel & Culver, 2007; Lemyre, Trudel & Durand-Bush, 2007; Erickson et al., 2008) suggest ineffectiveness of sport coach education courses due to learning content settings, processes, transfer and development of coaching knowledge as well as teaching methods. Erickson et al. (2008) commented on non-conducive learning settings as a result of a lack of interaction between presenters and sport coaches as learners and the inability of sport organisations to transform the complexity of sport coaching content into effective sport coach education courses. Nelson and Cushion (2006) corroborated the findings of Erickson et al. (2008) by stating that sport coach education is to a great extent de-contextualised learning as coaches attending the courses coach each other. Coaching peers do not present the same challenges as coaching players in a particular sport context. Wright et al. (2007) argued that sport coach education courses often focus on a theoretical acquisition learning setting where tutors deliver theoretical coaching knowledge to participants who must then apply the acquired theoretical knowledge in non-supervised practical sport coaching settings thus eliminating the crucial learning phase of feedback and evaluation. Lemyre et al. (2007) concluded that an unintended consequence of a lack of feedback and evaluation could be a hesitancy of beginner tennis coaches to attend formal coach education courses offered by sport federations.

Beginner coaches utilise other and often more convenient ways to attain tennis coaching knowledge and skills, for example through their own playing experiences, mentoring and personal interaction with other tennis coaches. Trudel and Gilbert (2006) as well as Nelson et al. (2006) ascribed sport coaches' negative perceptions of coaching courses to the structure of the coach education courses namely a novice-expert continuum model. They argued that starter-beginner tennis coach education courses follow a conveyer belt-approach to educating tennis coaches and do not allow for individual differences, value frameworks, motivations, and entrance and exit points. As such candidates attending a particular level of coach education course do not perceive it as a quality service.

Although researchers (Lemyre et al., 2007; Trudel & Gilbert, 2006; Nelson, Cushion & Potrac, 2006) seem to agree on a lack of customer satisfaction of sport coaches courses, the significance of sport coach education is strongly advocated (Sullivan, Paquette, Holt & Bloom, 2012; Nash & Sproule, 2011). Sport coaches' actions and behaviours are powerful influencers and determinants of players' positive and negative experiences in a sport. According to Nash and Sproule (2011) knowledgeable, educated and experienced sport coaches are needed to create coaching environments conducive for effective sport coaching where the needs and requirements of players are met and a foundation for the retention of players are laid. Effective sport coaching thus require a "consistent application of integrated professional, interpersonal and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts" (Koh, Mallet & Wang, 2011:316). International and national sport organisations implement and institutionalise the concept of sport coaching effectiveness through formal and structure coach education programmes. In this regard the International Council for Coaching Excellence (ICCE) provides international guidelines for sport coach effectiveness while national bodies such as the Coaching Association of Canada (CAC) through their National Coaching Certification Program (NCCP), the National Coaching Accreditation Scheme (NCAS) and the American Sport Education Program (ASEP) provide selected examples of structured and consistent application of integrated sport coaching knowledge.

As sport develops more in the business sector, the importance of service quality of sport products and services is receiving increased attention in research studies (Chang, Lin & Hwang, 2005; Tsitskari, Tsiotras & Tsiotras, 2006; Shonk & Chelladurai, 2008; Langviniene & Sekliuckiene, 2008; Kyle, et al., 2010; Lee, Kim, Ko & Sagas, 2011; Nuviala et al., 2012). Maintaining high levels of service quality is essential for sustained profitability in a sport business context. Both Caliskan (2009) and Larson and Steinman (2009) pointed out that although sport business are often structured and governed differently from businesses in other sectors of the economy, they are, however, no different in the requirement to measure the quality of their sport services on an on-going basis. Sport services, and in the case of this particular research, tennis coach education courses and tennis coaching sessions, are intangible sport products which are subject to consumer evaluation of service quality. Consumers perceive service quality subjectively and their perceptions provide important input to the producer of the service to adapt or maintain levels of service quality in order to stay profitable and retain customers (Ko & Pastore, 2007). As argued, the quality of a tennis coaching session as a sport service is predominantly a function of the perceived quality of the coach education course. It can be deduced that poorly perceived service quality of tennis coach education courses could negatively influence the quality of tennis coaching sessions as end-service.

Measuring sport service quality requires a multi-dimensional approach. Researchers in the field of sport service quality agree that sport services are diverse and different dimensions influence consumers' ultimate perception of a sport service. Different models for measuring and quantifying service quality in sport have therefore been developed and implemented. The SERVQUAL (Service Quality) model developed by Parasuraman, Zeithaml and Berry in 1985 is generally accepted as the seminal model to measure service quality in business contexts (Parasuraman, Zeithaml & Berry, 1985). The SERVQUAL model measures the perception gap between expected service quality and actual received service quality in five dimensions of service quality experience. Although the SERVQUAL model was originally designed for general business contexts, researchers have applied it in sport contexts of karate, skiing and fitness centers (Kouthouris & Alexandris, 2005; Dhurup, Singh & Surujlal, 2006; Samira & Nagla, 2010; Kyle et al., 2010). Some researchers (Kyle et al., 2010; Dhurup et al., 2006) critiqued the SERVQUAL model's reliability and effectiveness in measuring service quality in sport settings while the work of Samira and Nagla (2010) again supported the effectiveness of SERVQUAL in sport settings.

Critique against the use of SERVQUAL in sport settings predominantly centres on its five dimensions not adequately measuring the scope of service quality in sport contexts. Researchers subsequently developed service quality models focusing on service quality dimensions of specific sport services. For example, the SAFS model of Chelladurai, Scott and Haywood Farmer (1987), the OUESC model of Kim and Kim (1995), the SSQPS model of Ko and Pastore (2001) and the SQAS of Lam, Zhang and Jensen (2005) focused on measuring service quality in health and fitness centre contexts. Bitner's Servicescape framework (1992), the Sportscape model of Wakefield, Blodgett and Sloan (1996), the Customer Satisfaction Scale (CSC) of Alexandris and Palialia (1999) as well as the SPORTSERV model of Theodorakis, Alexandris and Ko (2001) provide examples of measuring instruments focusing on the quality of service perceived by spectators at sport events in sport stadiums. Ko and Pastore (2005) expanded their original SSQS model to include service quality recreation sport contexts in their SSQRS model. The SSQRS model was subsequently applied in recreation sport contexts (Shonk, Carr & De Michele, 2010).

An analysis of the existing body of knowledge on measuring service quality in sport contexts indicates a lack of research on perceived service quality of sport education and training services, for example sport coach education courses. As dedicated models for measuring service quality in specific areas of the sport industry developed from the seminal SERVQUAL model, this research accepted the SERVQUAL model as starting point for measuring service quality of sport education courses, and specifically the Starter-Beginner Coaching course of the International Tennis Federation (ITF) as observations and experience suggested a

decrease in the retention of tennis players due to the quality of coaches and tennis coaching sessions. The study therefore aimed to: 1) evaluate the expectations of tennis coaches of the service quality of the ITF's Starter-Beginner tennis coach education course; 2) determine the actual satisfaction of the tennis coaches with the service quality of the attended ITF's Starter-Beginner tennis coach education course; and 3) identify gaps between expectations and actual satisfaction of tennis coaches of the ITF's Starter-Beginner tennis coach education course.

## Methodology

## Research design and measuring instrument

The study followed a quantitative, phenomenological research design. A SERVQUAL questionnaire ( $\alpha$ =0.97) collected quantitative data on expectations and actual satisfaction with the quality of four ITF Starter-Beginner Tennis coach education courses. A pre-course and post course SERVQUAL questionnaire measured perceptions of the quality of these particular tennis coach education courses as sport service in the five dimensions of reliability of service; responsiveness of service deliverer; assurance of service users; tangibles and empathy of the service provider. Nineteen sub-dimensions with terminology adapted to a tennis coach education context explored the five primary SERVQUAL dimensions on a 5 point Likert scale of 1 = not important/no satisfaction to 5 = extremely important/extremely satisfied. A section on demographic data was inserted in the pre-course questionnaire.

## Sample and participants

The study used a two-layered, purposive sample procedure. Four ITF Starter-Beginner tennis coach education courses in South Africa, Seychelles, St Lucia and Vietnam were purposively selected from the ITF tennis development course calendar. All (N=96) individual tennis coaches attending the particular four courses were purposively selected but only 56 (n=56) consented to participate.

### Data collection

The ITF's Coach Development Department consented to the research. Consenting participants (n=56) anonymously completed a pre-course SERVQUAL questionnaire prior to the start and a post-course questionnaire on completion of the Starter-Beginner tennis coach education course they attended. Both data collection sessions were done under controlled circumstances and supervision of the head tutors of the respective tennis coach education courses and were briefed beforehand by the researcher on data collection procedures. Completed questionnaires were sealed and dispatched to the researcher.

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## Statistical procedures

Quantitative data were analysed using the Statistical Package of Social Sciences (SPSS 17 for Windows) to calculate percentages, means and standard deviations. The Kruskal-Wallis test was used to measure significance of differences in responses in the four courses over the five dimensions of the SERVQUAL instrument. Respondents indicated their perceptions on expected (pre-course) and actual (post course) service quality of the ITF's Starter-Beginner coach education course on a 5-point Likert scale. For purposes of statistical analysis the 5-point scale was collapsed into a 3-point scale of 1 = little or no importance/not satisfied; 2 = important/satisfied and 3 = extremely important/satisfied.

## Ethical considerations

Informed consent was obtained from the ITF and participants. An explanatory letter describing the aim and objectives and voluntary participation in the research was attached to the pre-course questionnaire. The researcher was not involved as tutor in any of the purposively selected ITF Starter-Beginner coach education courses. All responses were reported on anonymously and collectively.

## **Results and Discussion**

## **Demographics**

Demographic results indicated respondents were predominantly male (76.8%) between the ages of 20-30 years (37.5%), had an average of 13 years of tennis playing experience at club level (38.2%) and a secondary school education as highest level of education (37.5%). The majority of respondents (51.8%) reported 0-3 years coaching experience devoting 1-5 hours per week (44.6%) to tennis coaching. The majority of respondents (42.9%) came from Vietnam, 21.4% from St Lucia in the Caribbean, 19.6% from South Africa and 16.1% from the Seychelles. The skewed gender profile of the sample is ascribed to an all-male group of coaches in the Vietnam course. It is evident that respondents are fairly inexperienced as tennis coaches suggesting that their levels of satisfaction with the service regarding the technical and scientific content of the course, credibility of tutors and instructors as well as course delivery mechanisms and learning environments should be high to ensure a firm foundation for future coaching competency.

## Dimensions of service quality

Table 1 presents the descriptive statistics on the perceived quality of the ITF Starter-Beginner coach education courses.

**Table 1:** Pre-course and post course perceptions of service quality of ITF's Starter-Beginner tennis coach education course (n=56)

SERVQUAL dimensions and sub-dimensions of service quality of ITF Starter-Beginner coach education course.	Pre-course Expecta- tions of service quality (%)	Post- course actual satisfac- tion with service quality (%)	SD	Nominal gap between expected and actual service quality (%)	Perceived level of service quality
Dimension 1: Reliability of service					
Credibility of tutors and	96.4	96.4	0	0	No difference
instructors	70.1	70.1	Ü	Ü	110 difference
Tennis training course design	92.9	94.6	0.49	+1.7	Above expectations
Tennis coaching contexts	94.6	92.9	0.49	-1.7	Below expectations
Organization of coaching	96.4	92.9	1.30	-3.5	Below expectations
practices					•
Total gap for dimension 1				-3.5	Not satisfied with service quality
Dimension 2:					- ·
Responsiveness of service deliverer					
Pre course organization	87.5	85.7	0.51	-1.8	Below expectations
In course organization	92.9	98.2	1.25	+5.3	Above expectations
Post course organization	89.3	85.7	1.42	-3.6	Below expectations
Marketing of course	83.9	76.8	2.43	-7.1	Below expectations
Quality of coaching course material	91.1	92.9	1.03	+1.8	Above expectations
Total gap for dimension 2				-5.4	Not satisfied with service quality
Dimension 3:					quanty
Assurance of service user					
Integration of prior learning	83.9	91.1	2.31	+7.2	Above expectations
Learning styles and strategies	91.1	92.9	0.63	+1.8	Above expectations
Education styles and	94.6	92.9	0.59	-1.7	Below expectations
strategies					
Different methods of course	94.6	92.9	0.49	-1.7	Below expectations
delivery	02.0	02.0	0	0	N. 1100
Didactical styles and	92.9	92.9	0	0	No difference
strategies  Total gap for dimension 3				+5.6	Satisfied with service quality
Dimension 4:				10.0	suisieu with service quality
Tangibles					
Delivery of technical	100	94.6	4.82	-5.4	Below expectations
knowledge					_
Delivery of tactical	100	96.4	3.86	-3.6	Below expectations
knowledge	064	0.4.6	0.60	1.0	<b>79.1</b>
Delivery of scientific tennis	96.4	94.6	0.63	-1.8	Below expectations
principles and knowledge  Total gap for dimension 4				-10.8	Not satisfied with service
				-10.0	quality
Dimension 5:					
Empathy with service user	06.4	064			N. 1.00
Feedback opportunities	96.4	96.4	0	0	No difference
Tutors created a learning environment	100	96.4	1.87	-3.6	Below expectations
Total gap for dimension 5				-3.6	Not satisfied with service quality

The importance of customer satisfaction with a product or service is highlighted by researchers (Kouthouris & Alexandris, 2005; Shonk et al., 2010; Nuviala et al., 2012). These researchers purport that determining customers' perceptions of service quality constitutes a key variable in retention of customers and overall competitiveness of an organisation. Suh and Pedersen (2010) noted that satisfaction with perceived quality of service is an antecedent of customer satisfaction and analysing customers' perceptions of service quality assists in improving efficiency and efficacy of service delivery and service content. The above argument is equally applicable to service quality in sport contexts. According to Ko and Pastore (2007) in the often flooded market of sport services and consumer choices, any sport organisation needs to strive for increased customer satisfaction through providing high quality of services. In the chain of supply tennis coaching as a commercialised sport service relies on high quality coaches produced by high quality tennis coach education courses to recruit and retain tennis players. Findings of the present study as presented in Table 1, however, signals a significant lack of customer satisfaction with the majority of service dimensions of the ITF Starter-Beginner tennis coach education course. The present results also reiterate the findings of Erickson et al. (2008) and Wright, Trudel & Culver's (2007) warning against negative perceptions and experiences with sport coach education courses in the dimensions of learning contexts, transfer of knowledge and teaching methods.

Perceived service quality across ITF Starter-Beginner tennis coach education course locations

The non-parametric Kruskal-Wallis test for significance of differences between independent samples was applied to the results for each of the four coach education courses. Null hypotheses for each dimension of the SERVQUAL instrument were formulated and tested. Table 2 reflects the asymptotic significance of differences between expected service quality and actual experience of service quality across the participants of the four different courses (independent samples) in Vietnam, Seychelles, St Lucia and South Africa at a significance level of 0.05.

**Table 2:** Significance of differences in perceptions on expected and actual service quality of the ITF's Starter-Beginner coach education courses. (Kruskal-Wallis Test; p=0.05)

SERVQUAL dimension	Null Hypotheses	Significance	Decision
Reliability of ITF Starter-Beginner coach education course as service	<b>Expectations</b> of the quality of service across the four countries are the same.	0.296	Retain the null hypothesis
	Actual perceived service quality across the four countries is the same.	0.306	Retain the null hypothesis
Responsiveness of ITF as service provider	<b>Expectations</b> of the quality of service across the four countries are the same.	0.029	Reject the null hypothesis
	Actual perceived service quality across the four countries is the same.	0.010	Reject the null hypothesis
Assurance of course participants as service users	<b>Expectations</b> of the quality of service across the four countries are the same.	0.001	Reject the null hypothesis
	Actual perceived service quality across the four countries is the same.	0.069	Retain the null hypothesis
Tangibles of ITF Starter- Beginner coach education course	<b>Expectations</b> of the quality of service across the four countries are the same.	0.295	Retain the null hypothesis
	Actual perceived service quality across the four countries is the same.	0.021	Reject the null hypothesis
Empathy with course participants as service users	<b>Expectations</b> of the quality of service across the four countries are the same.	0.676	Retain the null hypothesis
	<b>Actual</b> perceived service quality across the four countries is the same.	0.040	Reject the null hypothesis

The findings presented in Tables 1 and 2 could also be interpreted in the light of individual cultural differences and value frameworks as service quality is a multidimensional concept consisting of tangible and intangible attributes to which consumers subjectively relate to. Some researchers on perceived service quality in sport (Ko & Pastore, 2007; Chelladurai & Chang, 2000) referred to personal interaction between consumer and producer as an influential determinant of sport service quality. Personal interaction is undoubtedly influenced by individual cultural and value frameworks. Perceived quality of personal interaction in the Starter-Beginner tennis coach education course is reflected in terms of the levels of assurance and empathy attending tennis coaches experienced. From the overall results in Table 1 it can be seen that perceived satisfaction levels of tennis coaches were below expectations in the sub-dimensions that required personal interaction (education styles, methods of course and knowledge delivery and tutors succeeding in creating a conducive learning environment). Applying the Kruskal-Wallis test for significance of differences between the four independent tennis coach education courses

attempted to test if the low perceived quality of personal interaction could have been influenced by cultural frameworks and personal values. In the case of all four courses the tutors were predominantly white males while the cultural and gender profile of attending coaches differed from that of the tutors across the courses. The rejection of the null hypotheses in the service dimensions of responsiveness of the ITF as service provider, assurance of course participants and empathy with course attendees could be attributed to cultural differences influencing the perceived quality of personal interaction. The importance of synchronising teaching styles and strategies to the dominant culture profile of the coaches attending the ITF Starter-Beginner tennis coach education courses is highlighted by the findings in Table 2.

## Limitations and implications for further research

The non-probability, purposive sample design and relative small sample size (n=56) of this current research limits the generalisation of results to service quality of sport coach education courses. It is important that future research exploring service quality of coach education considers a random probability sample design across more than one sport. The gender profile of the sample was biased towards male tennis coaches due to the all-male Vietnam course. Future sample designs must pay attention to gender as criterion for inclusion in the sample. Despite these limitations, however, the results of the current study could be accepted as exploratory in the area of service quality of coach education courses as sport service. A generic SERVQUAL questionnaire was used as research instrument. Future research should explore the reliability and validity of SERVQUAL as appropriate measuring instrument in coach education course contexts.

## **Conclusions**

The study aimed to measure service quality of ITF's Starter-Beginner tennis coach education courses in four geographical locations as perceived by the attending tennis coaches. The findings of the current study suggest that tennis coaches are dissatisfied with the reliability of the services, the responsiveness of the ITF as service provider, the tangibles of the course as well as the empathy of the ITF. Tennis coaches expressed overall satisfaction in the service dimension of assurance of service users. In addition satisfaction with service quality differed across the four different course locations most probably due to cultural incongruence between the head tutor and participants. It is strongly recommended that the ITF conduct follow-up research on perceived quality of their coach education courses to retain tennis coaches and ultimately also tennis players in the sport of tennis to sustain the commercial value of tennis coaching as sport service.

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