

Attitudes and insights of Free State Swimming coaches towards scientific coaching principles



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This serves to declare that the dissertation hereby submitted for the qualification M.A. in Human Movement Science at the University of the Free State is my own independent work and that I have not previously submitted the same work for a qualification at / in another University / Faculty.

In addition, I cede the copyright of this dissertation to the University of the Free State.

Objectives: The aim of this study is to determine the attitudes and insights of swimming coaches in the Free State Aquatics region towards scientific coaching principles. A comparison between performance coaches and participant coaches' scientific coaching principles to improve performance or participation levels in swimming were recorded.

Methods: This study was done by sampling data via quantitative research (i.e. a questionnaire). All swimming coaches who were at least 18 years old, regardless of their level of qualification, affiliated or not with Free State Aquatics, were invited to participate in the study. A questionnaire was compiled using data from various research sources. All coaches were categorised into a participant or performance coach.

The researcher captured data from the data forms to Microsoft Excel. A statistician conducted further analysis using SAS Version 9.1.3. Frequencies and percentages were calculated for categorical data. For numerical data, where data were evenly distributed, means and standard deviations were calculated. Medians and percentiles were calculated where data were not normally distributed. The Student's T-test was used to compare mean values between the two groups, whereas the Kruskal-Wallis test was used to compare median values. The appropriate p-values and/or confidence intervals were reported. For the dependent data, the mean or median differences were calculated within the groups. The Student's T-test, or Wilcoxon signed rank test, was used to test for significant median differences. A Fischer Exact test was used to test for significant frequency differences. A significance level of $p \leq 0.05$ was used throughout the research study.

Results: Seventy one percent of the participant coaches and 29% of the performance coaches participated in the research study. Out of a total of 42 participants (coaches), 21% were male and 79% were female.

An alarming result was that 36% of coaches had no qualifications in swimming coaching whatsoever, but are currently involved in coaching. Almost half (46.7%) of the participants have no swimming coaching qualification, while 41.7% of the performance coaches only have a 'Learn to Swim' qualification. Only 23.8% of all coaches (participant and performance coaches) are registered with SSA, which is compulsory. Therefore, 76.2% of all coaches are not compliant with SSA rules and regulations pertaining to a coach.

As expected, performance coaches rated professional knowledge (50%) and interpersonal knowledge (58.4%) as very important. This differs from participant coaches who indicated that professional knowledge (50%) was important to them. Performance coaches preferred learning methods through internal learning (75%) and unmediated learning (58.4%). Participant coaches reported that internal learning (56.7%) and mediated learning (40%) were their preferred learning methods.

Differences between performance and participant coaches' characteristics are passion and enthusiasm and love for the sport, as demonstrated by performance coaches. This is contradictory to the main goal of participant coaches who would like to instil an element of fun in swimming, in order for the swimmers to gain passion and enthusiasm and ideally love for the sport so that they continue with swimming. In comparison, a participant coach's role as a friend differed significantly from performance coaches ($p = 0.0437$). This coincides with their strategy of integrating professional and personal life while coaching. There was no significant difference between participant and performance coaches with regard to the multi-disciplinary involvement in performance improvement.

Conclusions: It is alarming that almost half of the current swimming coaches have no qualifications at all. SSA and FSA must enforce stricter rules and regulations regarding coaching, so that all coaches have the minimum qualification in relation to

their level of coaching. Various learning methods must be employed to develop numerous knowledge components to achieve optimal scientific coaching.

Key words: Swimming coaches, knowledge, insight, attitudes, participation, performance

Doelstelling: Die doel van die studie was om die ingesteldheid en insig van swemafrigters in die Vrystaat Aquatics-streek ten opsigte van wetenskaplike afrigtingbeginsels te bepaal. 'n Vergelyking tussen die prestasie-afrigter en die deelnemer-afrigter se wetenskaplike benadering tot swemafrigting om swemprestasie en -deelname te bevorder is getref en gedokumenteer.

Metodes: In die studie is daar van kwantitatiewe navorsing (vraelys) gebruik gemaak om die data te versamel. Alle swemafrigters wat ten minste 18 jaar oud was, is genooi om aan die studie deel te neem, ongeag hul vlak van kwalifikasie en affiliasie by die Vrystaat Aquatics-streek. 'n Vraelys is saamgestel deur van data-versameling uit verskeie navorsingsbronne gebruik te maak. Alle afrigters is gekategoriseer óf as 'n deelnemer-, óf as 'n prestasie-swemafrigter.

Data is op datavorms versamel en deur die navorser op Microsoft Excel gestoor. Verdere analyses is deur 'n statistikus uitgevoer, deur van "SAS Version 9.1.3" gebruik te maak. Frekwensies en persentasies is vir kategorieëse data bereken. Vir numeriese data is gemiddeldes en standaardafwykings bereken waar data gelykmatig versprei was. Die mediaan en persentiel is bereken waar data nie gelykmatig versprei was nie. Die Studente T-toets is gebruik om gemiddelde waardes tussen die twee groepe te vergelyk. Die Kruskal-Wallis-toets is gebruik om mediaanwaardes met mekaar te vergelyk. Die toepaslike p-waardes en/of betroubaarheidsintervalle is aangemeld. Die gemiddelde, of mediaan-verskille, is binne die groepe vir afhanklike data bereken. Die Studente T-toets, of *Wilcoxon Signed Rank Test*, is gebruik om beduidende mediaan-verskille aan te dui. Die *Fischer Exact Test* is gebruik om beduidende frekwensieverskille aan te dui. 'n Beduidende vlak van $p \leq 0.05$ is in die navorsingstudie toegepas.

Bevindinge: Een-en-sewentig persent van die deelnemer-afrigters en 29% van die prestasie-afrigters het aan die studie deelgeneem. Uit 'n totaal van 42 deelnemers (afrigters) was 21% manlik en 79% vroulik.

'n Ontstellende bevinding is dat 36% van die afrigters oor geen kwalifikasie in swemafrigting beskik nie, maar wel by swemafrigting betrokke is. Ongeveer die helfte (46.7%), van die afrigters het geen swemafrigting-kwalifikasie nie, terwyl 41.7% van die prestasieafrigters oor slegs 'n "leer-om-te-swem"-kwalifikasie beskik. Slegs 23.8% van alle afrigters (deelnemer- of prestasieafrigters) is by Swem Suid-Afrika (SSA) geregistreer – 'n verpligte vereiste. Ses-en-sewentig persent van alle afrigters voldoen dus nie aan die minimumvereistes van SSA se reëls en regulasies nie.

Komponente van kennisontwikkeling is belangrik vir die afrigter om sy atlete optimaal te laat presteer en sy afrigtingsvermoë te optimaliseer. Soos verwag, gradeer prestasieafrigters professionele kennis (50%) en interpersoonlike kennis (58.4%) as baie belangrik in swemafrigting. In teenstelling hiermee, gradeer slegs 50% van deelnemerafrigters professionele kennis as belangrik. Prestasieafrigters se voorkeur-leermetodes sluit in, interne leer (75%) en leer sonder bemiddeling deur 'n fasiliteerder (58.4%). Deelnemerafrigters meld weer dat interne leer (56.7%) en leer sonder bemiddeling (40%) hul voorkeur-leermetodes is.

Die verskille in karaktereienskappe tussen prestasie- en deelnemerafrigters is passie, entoesiasme en liefde vir die sport wat prestasieafrigters openbaar. Dit is in teenstelling met die primêre doelstelling van die deelnemerafrigters wat daarvan hou om 'n mate van plesier in die afrigting in te voeg en daardeur passie, entoesiasme en liefde by die swemmers te kweek. Daardeur word swemmers gemotiveer om met die sport voort te gaan. Deelnemerafrigters se rol as 'n vriend van die swemmers verskil betekenisvol ($p = 0.0437$) van dié van 'n prestasieafrigter wat in hul strategieë die integrasie van persoonlike en privaatlewe tydens afrigting insluit. Dit was interessant om waar te neem dat geen betekenisvolle verskil ($p < 0.05$) gevind kon word tussen 'n deelnemer- en prestasieafrigter in die gebruik van 'n multidissiplinêre span in afrigting nie.

Samevatting: Dit is ontstellend om te bevind dat byna die helfte van die swemafrigters oor geen kwalifikasie in swemafrigting beskik nie. Strenger toepassing van die reëls en regulasies van SSA en die Vrystaat Aquatics-streek moet toegepas word, sodat alle afrigters in die streek 'n professionele en veilige omgewing kan skep waar kinders kan leer, swem en presteer. Verskillende metodes om insig te verbreed, houdings te verander en gebiede van leer te ontwikkel is belangrik vir beide die deelnemer- en die professionele swemafrigter om as afrigter te groei.

Sleutelwoorde: Swemafrigters, kennis, insig, houding, deelname en prestasie.

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INTRODUCTION AND PROBLEM STATEMENT

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1.1 Introduction

Interest in high-level human athletic performance has existed since the inception of sport (Johnson, Castillo, Sacks, Cavazos, Edmonds & Tenenbaum, 2008:417). Elite performance in sport has been attributed to innovations in sport science, technological advances, training systems and nutritional analysis. Little attention however, has been given to the “place” of the coach in the pursuit of excellence in sport (Nash, Sproule & Horton, 2008:539).

The tasks of a coach have changed considerably in the past twenty years, largely as a result of the need for high-level performance as well as the professionalisation and commercialisation of major sports. According to Nash *et al.* (2008:539) and Solomon and Rhea (2008:251) this has led to an impact on the way coaches perceive their function and responsibilities in the coaching process. In order for coaches to assess the best means for developing individual athletes, they must process a significant amount of information about the athlete and the unique demands of the sport and integrate this with their mode of coaching.



There is still debate in coaching science as to how performance of the coach should be measured and as to what constitutes performance coaching. Coaching efficacy is defined as the extent to which coaches believe they have the capacity to affect the learning and performance of their athletes (Feltz, Chase, Moritz, & Sullivan, 1999: 765-776). It has been usual in the past to measure coaching performance in an indirect manner by measuring various performance variables. One method is the use of win-loss records or athlete performance results, but clearly this measure can be affected by many variables other than the coach. Previous researchers (Lyle, 2002:39; Côte & Gilbert, 2009:308; Ford, Coughlan & Williams, 2009:453; Sáiz, Calvo & Ibáñez Godoy, 2009:21) have questioned whether this indirect measure provides a valid and reliable method of identifying “successful or unsuccessful” (performance or participation) coaches. By implication of this direct measure, no participant coach can therefore be seen as a “successful” coach as their swimmers never compete in a competition and their performance cannot be measured by win-loss percentages.

Lyle (2002:39), Côte and Gilbert (2009:308) and Ford *et al.* (2009:453) stated that there are two other variables that measure coach performance which are personal attributes (satisfaction, enjoyment, self-esteem, competence etc.) gained by athletes and another method of coach performance is coaches’ years of experience.

The inability to accurately measure these three indirect performance variables has led to a situation where expert coaches are usually only identified by their current status and experience (Ford *et al.*, 2009:453). Although status and experience are frequently associated with expert performance on domain-related tasks, several problems exist with using these three variables as a basis on which to measure expert performance, as it is difficult to remove the influence of social factors, contextual factors and biases (Ford *et al.*, 2009:453).

If the role of the coach cannot be clearly defined, then it may be difficult to develop a framework that delineates the differences between the different levels of coaching



(Nash *et al.*, 2008:540). Therefore, it is vital that the different roles or skills required by the coach are at the correct time and place to be successful and multiple skills may be needed in any single situation, making it difficult to separate some components of performance from others.

Performance is also heavily affected by the context within which coaching occurs (Ford *et al.*, 2009:453). Thus, it makes the effective analysis of coaching performance at the various levels difficult to achieve. Irrespective of the analysis of coaches' work, experience and knowledge, coaches are required to meet the needs of those in sport at all ages and levels. If the joint aims of lifelong sport and competitive success are to be realised, then more attention has to be focused on the work of coaches. The initial introduction to a specific sport and basic skills of the particular sports must highlight the importance of fundamentals and encourage the later development of higher-order skills, such as decision making and problem solving.

Many coach educators have suggested that beginner participants (or novice swimmers) would benefit most from "experienced" (performance) coaches. It may be a commonly held belief that this will not happen unless the coaches are "experienced" at participation level and able to demonstrate the appropriate coaching approach combined with an appropriate level of expectations (Nash *et al.*, 2008:540). However the level that individuals choose to coach at can be linked to their motivations, aspirations and their reasons for becoming involved.

1.2 Problem statement

Successful competitive swimming performance requires that a talented swimmer has developed his/her technique and physical conditioning to a high level and excels in performance (Smith, Norris & Hogg, 2002:539). Williams and Kendall (2007:1578) identified a gap between sport science and coaches, as coaches do not make regular use of sport scientists for improving swimming performance. Free State



Aquatics and the Multidisciplinary Research Discussion Group of the Division of Sports Medicine of the University of the Free State, hypothesised that there were deficiencies in the attitudes and insights of coaches towards scientific swimming coaching principles which could be addressed by Swimming South Africa in future coaching education programmes. Other concerns were the lack of national and international excellence of swimmers and coaches in the Free State. In addition a lot of time and energy is spent on the development of swimming and elite swimming in the Region, but low participation levels still exist in swimming.

Studies have strongly indicated that coaches can positively affect athletes' performance, behavior and psychological and emotional wellbeing (Kavussanu, Boardley, Jutkiewicz, Vincent & Ring, 2008:383). Furthermore, it has also been suggested that the coach's interaction with the children is the greatest determinant of the quality of the experience (Stern, Prince, Bradley & Stroh, 1989:277).

There is limited information available in the literature on the insights and attitudes of coaches (Stern, *et al.*, 1989:277-281; Kavussanu, *et al.*, 2008:383-404; Reade, Rodgers & Hall, 2008:319-334; Solomon & Rhea, 2008:251-267; Côte & Gilbert, 2009:307-319) and after an in-depth literature research, no research could be found addressing swimming coaches in general in the Free State or in South Africa.

1.3 Aim and objectives

1.3.1 Aim of the study

The general aim of the study was to establish the attitudes and insights of swimming coaches in the Free State Aquatics Region towards scientific coaching principles.



1.3.2 Objectives of the study

1. To establish the attitudes and insights of the swimming coaches (from performance to participation coaches) in the Free State Aquatics Region with regard to scientific coaching principles to increase performance levels.
2. To establish the attitudes and insights of swimming coaches (from performance to participation coaches) in the Free State Aquatics Region with regard to the promotion of swimming to improve participation levels.

1.4 Purpose of the research

The purpose of this research is to provide data and analyse this data so that it will lead to an escalation of participation in swimming (swimming development) and the application of scientific swimming coaching to enhance the performance of elite swimmers in the Free State Aquatics Region.

This study was undertaken to establish the attitudes and insights of swimming coaches in the Free State Aquatics Region in order to highlight strong points, deficiencies or shortcomings. These deficiencies can be addressed by Swimming South Africa in future coaching education to enhance or create an everyday swimming coaches' guide for understanding and enhancing coaching performance and participation.

1.5 Necessity of the research

Previous studies have suggested that worldwide, current formal coach education programmes do not fully meet the “learning needs” of coaches and that coaches play a significant role in the development, training and success of athletes in their sport (Williams & Kendall, 2007:1575; Erickson, Bruner, Macdonald & Côte, 2008:527;).



Furthermore, according to Kavussanu *et al.* (2008:383), coaches can positively affect athlete's performance, behaviour and psychological and emotional wellbeing. Therefore, by evaluating the coaches "learning needs" (education, training) insights and attributes in the Free State Aquatics Region, valuable information for future coaching programs could be provided to enhance swimming performance of swimmers. In addition, promoting and or creating effective coaches' attitudes can influence different aspects of the swimmer's experience which could influence the swimmer to discontinue or excel in swimming.

1.6 Structure of dissertation

The dissertation will be presented in five chapters (refer to Figure 1.1), namely an introductory chapter (Chapter 1), a literature review (Chapter 2), a chapter describing the methods of research (Chapter 3), a chapter containing the results and the discussion of the results (Chapter 4) and a final chapter summarising the study (Chapter 5).

Chapter 1 will include the problem statement and will also state the research questions and aims of the study. Chapter 2 will contain an overview of the relevant literature available on the various components that influence swimming coaches' scientific coaching principles towards performance and the promotion of swimming. Chapter 3 will fully address the research methodology which will include questionnaires and interviews with the subjects. Chapter 4 will provide the results, the analysis and discussion of the results. Chapter 5 will conclude the study with a summary and recommendations. This chapter will be followed by a list of appendices. Each chapter will include its relevant references. Referencing will adhere to the regulations and conventions of the Department of Exercise and Sport Science, which uses the Harvard referencing method.



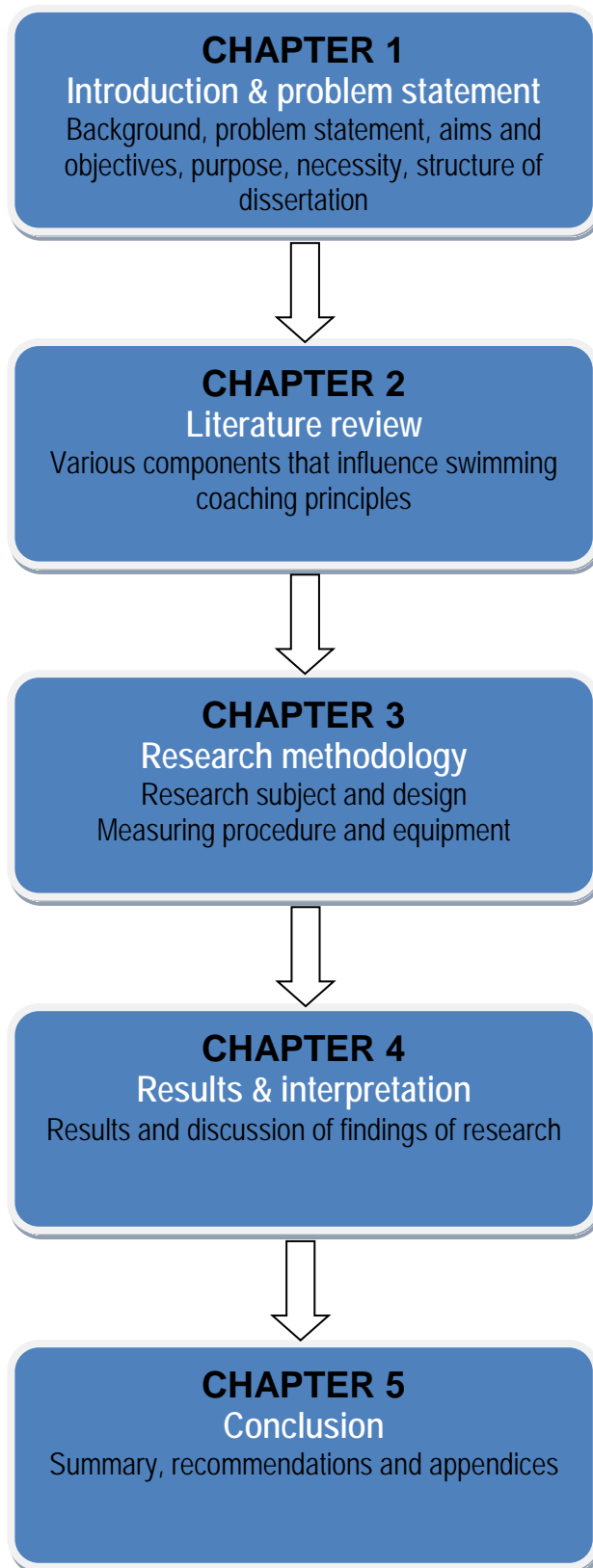


Figure 1.1: Structure of dissertation



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LITERATURE REVIEW

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2.1 Introduction

All physical movement in sport are a combination of technique and athleticism. As a coach, developing programmes that emphasise this combination is the key to successful performance and development (Judge, Hunter, & Gilreath, 2008:477). In recent years, competition has developed to such a high level that no athlete or coach can afford to neglect the application of scientific principles. Reade, Rodgers and Hall



(2008(a):319) also stated that there is a need to determine where and how science might contribute to coaches' innovations. The coach and sport scientist must therefore continuously be open to new ideas (Burkett & Mellifont, 2008:105) and it is vital to determine the coaches' attitudes towards gaining insight through science to improve athletic performance.

The application of research into practice is an essential part of coaching development. Sprinks (1997:18-19) drew attention to differences between the focus of sports science research projects and what coaches "think" they need to know to be better coaches. According to Williams and Kendall (2007:1577) various methods have been used to identify what could be called the "research needs" of coaches. However, research needs differ according to the type of stakeholder. Williams and Kendall (2007:1577) stated in this regard that coaching directors and sports administrators are engaged with coaching development at all levels. On the other hand, coaches at the elite level are concerned primarily with sports performance, and sports science researchers serve two agendas – those working with or for coaches endeavour to target research to enhance performance, whereas those working through universities may be focused on increasing the sports science body of knowledge.

Qualitative research methods were utilised by Cushion (2007:396) to illustrate the complexity inherent to coaching. His research acknowledges that the coaching process is multifaceted and cannot be represented as a singular element. Various views of coaching as demonstrated by (Chambers, 1997:1; Lyle, 2002:2; Cushion, 2007:396) are presented as systematic, unproblematic and inadequate and only deals with the operational, dynamic or adaptive aspects of coaching in general. That said, by taking a more sophisticated view of coaching, offers valuable insights, but arguably does not sufficiently grasp the nature of coaching practice and the complexity inherent within it.



Coaching was acknowledged by Chambers (1997:1) as not just having the expertise about training methods, tactics and strategy; coaching is also about dealing with people. He formulated the following questions about coaching practice and the complexity inherent within:

- What are the full responsibilities of the modern coach?
- What attributes and attitudes should coaches have to interact with the athletes?
- What is the spectrum of knowledge that the coach must have to perform these responsibilities?
- What should the spectrum of knowledge be that coaches have to ensure that the expected results are achieved?
- Is there a gap between the perceptions of coaches and those of sport administrators, athletes and parents?

These questions give a clear indication that more research is needed and the following research question was formulated:

- What are the ideal attributes, attitudes and insights needed by a coach to promote development or performance excellence?

According to Sands (1999 cited in Williams and Kendall, 2007:1577) sports scientists often conduct discipline-based studies in training and performance in areas where coaches do not need help. Scientists normally pursue research problems in the context of their own discipline, be that as a physiologist, psychologist or nutritionist, whereas a coach needs to solve a problem specific to an individual athlete, which might call for solutions that are multidisciplinary in nature. The setting in which research is conducted, and how accurately tests and equipment mimic sporting actions, can influence the acceptance of findings by coaches and their application into practice (Sprinks, 1997:18-19). Williams and Kendall (2007:1577) also stated that coaches view coaching knowledge as practical if it applies to their activities as a coach. Therefore, a preference for practical coaching knowledge may reflect an undervaluing of the benefits of scientific knowledge (Williams & Kendall, 2007:1577).



Several studies have addressed the qualities valued in coaches. Expert team coaches develop their expertise through the use of mentors, education, and consultation with sports scientists Salmela, Draper and La Plante (1993 cited in Williams & Kendall, 2007:1578) and coaches' value experience and practical knowledge acquired from participation in sport and from other coaches above knowledge gained from sports science research Quinlan (2002 cited in Williams & Kendall, 2007:1578). Nevertheless, coaches were found to have limited knowledge of and misconceptions about, the discipline of sports psychology knowledge Pain and Harwood (2004 cited in Williams & Kendall, 2007:1578). Elite level coaches would only listen to those sports scientists who could demonstrate a thorough understanding of the sport(s) with which they worked Ellem (1996 cited in Williams & Kendall, 2007:1578). Arguably, an understanding of the qualities and knowledge valued by coaches and researchers might be of assistance in establishing a productive working relationship between these two groups.

If a swimming coach can be compared to a teacher in practice. Schempp, Tan and Mc Cullick (2002:99) research found that experienced teachers believed they had a great deal to learn about teaching, while novice teachers believed they knew everything they needed to know about teaching. The better teachers are eager to learn. It is perhaps one reason why they are better teachers. If this argument is applied to sport, the more experienced coach wants to improve his/her knowledge base and are eager to learn or acquire knowledge on a continuous basis as appose to the less experienced coaches.

2.2 Common terminology and definitions

There are a number of terms that need to be clarified in order to provide a consistent vocabulary and interpretation thereof to analyse and understand the research project. Throughout this research a distinction will be made between two types of coaches, performance coach and participation coach.



2.2.1 Performance coach

A performance coach can be considered to be a “high-performance coach” (Lyle, 2002:53; Reade *et al.* 2008(a):319), an “ideal coach” (Hendry, 1969:299), a “great coach” (Becker, 2009:93), an “expert coach” (Ford, Coughlan & Williams, 2009:453; Sáiz, Calvo & Ibáñez Godoy, 2009:21; Trninic, Papic & Trninic, 2009:99; Young, Jemczyk, Brophy & Côte, 2009:397), “experienced coach”, “effective coach” (Lyle, 2002:253; Côte & Gilbert, 2009:307), “elite coach” (Cregan, Bloom & Reid, 2007:339; Williams & Kendall, 2007:1577) or even a “good or successful coach” (Lyle, 2002:39; France, 2009:123). The main goal is to succeed with his or her swimmers’ to gain the highest level of performance that he or she can achieve, namely provincial (level 2 or 3), national or international swimmer. All these swimmers compete in competitions and have an element of competitiveness instilled in them by their coach.

2.2.2 Participant coach

A participant coach (Lyle, 2002:53) could be considered as synonymous with any of the following terms in the literature: a “developmental level coach” (Lyle, 2002:53; Erickson, Burner, Macdonald & Côte, 2008:527), “novice coach” (Ford *et al.* 2009:451), a “youth coach” (Beyer, Flores & Vargas-Tonsing, 2008:555). The main goal is to provide an element of fun in the swimming environment and provide the child with water safety. The coach introduces the swimmer to the swimming pool and swimming as a sport, e.g. a physical education class where swimming is introduced or a learn to swim program. The swimmer can then enjoy the sport and be encouraged to succeed later at competition level. No form of competition or competitiveness is instilled in these swimmers by the coach; only development takes place.



2.2.3 Coaches insight

The foundation of good coaching is insight of the sport's techniques and tactics. Putting this knowledge into action requires that the coach uses an effective mix of organisational skills, teaching strategies, communication skills and group management practices. To ensure that athletes' performances continually improve, the coach must apply a variety of coaching practices based on an understanding of scientific coaching principles.

Coaches' attitudes towards gaining insight through science to improve athletic performance can be considered any of the following terms: "insight" (Ardua & Márquez, 2007:395), "knowledge" (Cregan *et al.* 2007:339; Erickson *et al.* 2008:529; Reade *et al.* 2008(a):319; Reade, Rodgers & Spriggs, 2008(b):336; Côte & Gilbert, 2009:309), "expertise", "experience".

2.2.4 Coaching expertise

Coaching expertise was expressed by Côte (2009) as a "Consistent application of sport specific, interpersonal and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts." Côte, Salmela, Trudel, Baria and Russel (1995:10) summarised coaching expertise according to the coaching model which describes a coach's work from a coach's perspective. The core of the model consists of the coaching process which is central to all variables. This consists of coach's personal and developmental characteristics, athletes' personal and developmental characteristics and the contextual factors which affect the coaching process. Finally, the goal of athlete development and coach's mental model is vital to the coaching process.

2.3 What constitutes performance coaching

There is still much debate in coaching science as to how performance of the coach should be measured and as to what constitutes performance coaching. The



performance of the athlete or athletes' is often used as a measure of coach performance. Previous researchers (Lyle, 2002:39; Côte & Gilbert, 2009:308; Ford *et al.* 2009:453; Sáiz, *et al.* 2009:21) have questioned whether this indirect measure provides a valid and reliable method of identifying "successful or unsuccessful" (performance or participation) coaches. The use of win-loss records has been commonly used as a measure of coach performance, but this measure can be affected by many variables other than the coach. By implication of this direct measure, no participant coach can therefore be seen as a "successful" coach as their swimmers never compete in a competition and their performance cannot be measured by win-loss percentages. Lyle (2002:39), Côte and Gilbert (2009:308) and Ford *et al.* (2009:453) argue that other variables that constitute coach performance are athletes' personal attributes (satisfaction, enjoyment) or coaches' years of experience.

The inability to accurately measure these performance variables has led to a situation where expert coaches are usually only identified by their current status and experience. Although status and experience are frequently linked with expert performance on domain-related tasks, several problems exist with using these variables as a basis on which to measure expert performance, as it is difficult to remove the influence of social factors, contextual factors and biases (Ford *et al.*, 2009:453).

If the role of the coach cannot be clearly defined, then it may be difficult to develop a framework that delineates the differences between the different levels of coaching (Nash, Sproule & Horton, 2008:540). It is vital that the different roles or skills need to be employed by the coach at the correct time and place to be successful and multiple skills may be needed in any single situation, making it difficult to separate some components of performance from others. Thus, the various roles, skills and needs of coach influence coach performance.



Performance of athletes is also heavily affected by the context within which coaching occurs (Ford *et al.*, 2009:453). Thus, it makes the effective analysis of coaching competence at the various levels difficult to achieve. Irrespective of the analysis of their work, experienced, knowledgeable and educated individuals (coaches) are required to meet the needs of those in sport at all ages and levels. If the joint aims of lifelong sport and competitive success are to be realised, then more attention has to be focused on the work of coaches and the initial introduction and basic skills of the particular sports to highlight the importance of fundamentals and to encourage the later development of higher-order skills, such as decision making and problem solving. Many coach educators have suggested that beginner participants (or novice swimmers) would benefit from the most “experienced” (performance) coaches. Nash *et al.* (2008:540) suggest that it may be a commonly held belief that this will not happen unless the coaches are “experienced” at the participation level, and able to demonstrate the appropriate coaching approach combined with an appropriate level of expectations.

However, Nash *et al.* (2008:540) argued that the level that people choose to coach at can be linked to their motivations, aspirations and their reasons for becoming involved. A coach setting that offers a supportive learning environment, appropriate levels of challenge for both the coach and the participants and that engenders a passion for the sport can produce a positive and productive sporting outcome, irrespective of the level of coaching.

2.4 What constitutes development coaching

The established hierarchical coaching structure tends to result in the least experienced (participation) coaches operating at the stages most critical to long-term sporting participation, rather than “experienced” (performance) coaches leading well-organised sessions of age-appropriate activities. This attitude is further encouraged by the traditional coach education structure where the perceived advantages and recognition are only available at the elite level of coaching (Nash *et al.*, 2008:540).



A critical step, therefore involves identifying possible domains in which development might occur for coaches' in the performance context. Essentially, a person's development of knowledge, competencies and behavioural tendencies is the product of interactions that they have in various contexts, such as the social domains in which they invest their time and the network of people (including athletes, other coaches etc.) within which they frequently function and have "exchange opportunities" (Young *et al.*, 2009:398).

According to Reade, *et al.* (2008**(b)**:338) and Young *et al.* (2009:398), possible domains that develop coaching expertise should comprise of experiences that afford learning situations that are mediated (learning that is guided or led by an instructor e.g., coaching classes), unmediated (when the learner seeks out the information directly and then personally uses the knowledge to develop or test new ideas (e.g., watching other coaches) and internal (self-reflection where the learner reconsiders and rearranges existing knowledge and experiences to develop a new idea e.g., reflecting on their own coaching). Sáiz, *et al.* (2009:25) also highlighted the importance of this reflective experience, suggesting that coaches should also valued a desire for constant improvement and progression such that they understood their development as a continuous process undertaken with an express will to improve.

Therefore, attention is given to the following variables or components that could influence swimming coaches' scientific coaching principles.

2.5 Components that influence swimming coaches' scientific coaching principles

Various researchers (Pyke, 2001:1; Ford *et al.*, 2009:453 and France, 2009:123) have attempted to categorise the components that influence swimming coaches' principles of coaching.



2.5.1 Role, tasks, functions and knowledge of a coach

In the process of sports preparation, Trninic *et al.* (2009:99) suggested that the role of coaches in particular sports is to develop in an athlete a balanced technical, tactical, conditioning, psychosocial and also competitive and theoretical preparation. France (2009:123) stated that the role of the coach is to create the right conditions for learning and to find ways of motivating the athletes. Most athletes are highly motivated and therefore the task is to maintain the motivation and to generate excitement and enthusiasm. According to Ford *et al.* (2009:455) these skills and competencies have traditionally been conceptualised as the multiple “roles of a coach”, such as a mentor, teacher, friend, leader or motivator. While the “roles of the coach” provide a good conceptualisation of the skills and competencies needed to be a successful coach, a lack of detail or definition in terms of what behaviours constitute these roles make it difficult to measure performance within a role.



○ Key roles of a coach

Pyke (2001:4), defined the key roles of a coach as two distinctive types of roles namely on-field and off-field coaching roles. The key roles of a coach are depicted in the athlete-focused coaching diagram below (Figure 2.1).

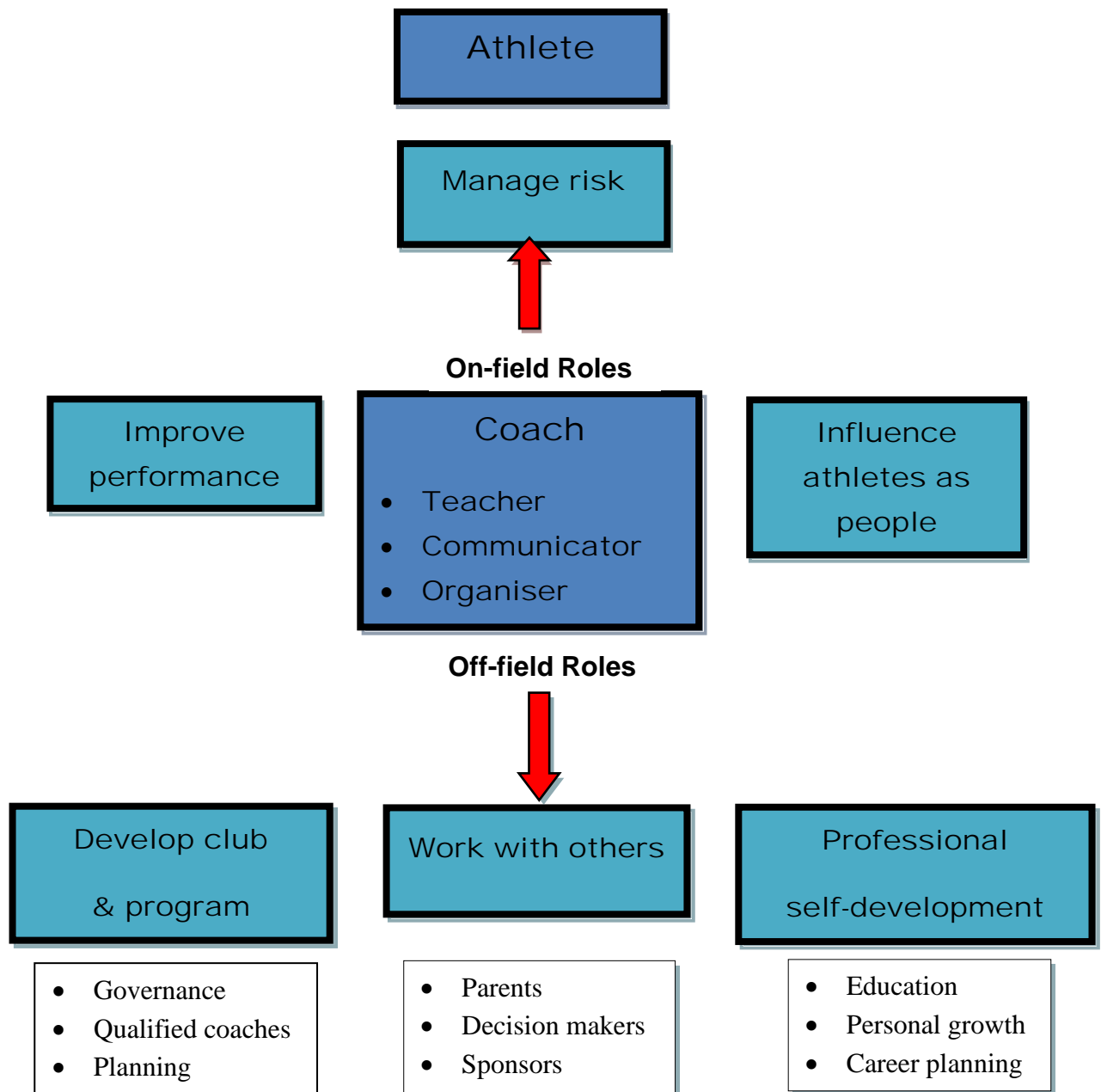


Figure 2.1: Athlete-focused coaching diagram (Pyke, 2001:4)



- **On-field coaching roles**

In their on-field roles, coaches interact directly with athletes to improve their athletic abilities and take measures to ensure that the safety and welfare of the athletes are guaranteed (Pyke, 2001:4). Looking beyond sport, coaches also directly influence personal aspects of athletes' lives.

- **Improving the athlete**

In order to improve the athlete, the coach must apply a variety of coaching practices based on understanding of sport science knowledge.

- **The coach as risk manager**

Sport, like other aspects in life, carries risks but many can be reduced or eliminated. Risk management is an important topic for all those involved in sport. Ensuring the safety of athletes is an important part of coaching. Codes of conduct have been developed and implemented that enhance the safety and wellbeing of both the athlete and coach. According to Swimming South Africa all coaches must be qualified as an SSA LTS coach and be registered with SSA on an annual basis. Coaches must have a current first aid level 1 certificate and have risk insurance cover with SSA (swimsa.co.za).

Due to the fact that coaches' work with children in water there will always be an imminent risk involved. Danger exists wherever water is present and death resulting from submersion in water is likely to occur rapidly (Dean & Mulligan, 2009:35). Research conducted by Burrows, Van Niekerk and Laflamme (2010:268) stated approximately two-thirds of all children that died before the age of 14, died due to drowning. Drowning is also one of the top five causes of fatal injuries in urban South Africa (Burrows, *et al.*, 2010:268).



- **The coach and the whole athlete**

The coach is often a very significant person in an athlete's life. Whether coaches work in sport institutes or in clubs, they have a role in guiding and balancing the demands that sport makes of athletes with the other demands placed on them, such as home, social needs, education and in some cases, employment.

- **Off-field coaching roles**

The on-field roles take up most of a coach's time, but coaches must perform diverse functions to complement day-to-day coaching. Coaches at all levels will readily identify the numerous off-field tasks they have to deal with, which might include tasks like recruiting more swimmers (promotion of swimming club), fundraising, communicating with parents and sport administrators, working with or management of other coaches, providing or arranging transport facilities, organising equipment or venues and communications such as a newsletters.

- **Helping to build a quality program**

Clubs like any other organisation should strive to do things better. Those that are well run have a better chance of providing quality sport experiences for their members. Coaches should consider whether their club is meeting the needs of its "customers" (athletes).

- **Communication skills off the field**

It is important that coaches use a variety of communication strategies, as a flexible approach to communicating will enable them to work with a wide variety of athletes, each with their own special needs. People involved with sport often bring with them a lot of enthusiasm and passion. People skills, such as those of negotiating, resolving problems or reflection, may be used to good effect both on the field and off the field.



- **Planning**

Failing to plan is planning to fail! Effective planning underpins a coach's on-field and off-field roles.

- **Professional self-development**

Sport is continually changing: rules change, techniques change, equipment is refined and coaching methods, including the application of the sport sciences, evolve. Coaches must keep abreast of these changes and adapt their coaching accordingly.

- **Self-reflection**

Coaches should ask themselves whether the things they do and say as a coach make a difference and whether their coaching behaviours are effective and improve the athletes' performance. It is important that coaches take control of their own learning.

- **New knowledge and skills**

Formal (e.g. professional courses and tertiary study) and informal (e.g. workshops and seminars) development opportunities are available for coaches seeking to update their knowledge and skills. Top-level coaches often use a network of other coaches to supply new ideas (Pyke, 2001:6).

For the purpose of this study, a distinction was made between the three methods of learning according to Erickson *et al.* (2008:529), Reade *et al.* (2008**(b)**:338) and Young *et al.* (2009:398) were:



✓ **Mediated learning**

Learning that is guided or led by an instructor (e.g., coaching classes, mentoring).

✓ **Unmediated learning**

The learner seeks out the information directly and then personally uses the knowledge to develop or test new ideas (e.g., observing other coaches).

✓ **Internal learning**

Self-reflection where the learner reconsiders and rearranges existing knowledge and experiences to develop a new idea (e.g., reflecting on their own coaching or reconsideration of existing ideas).

Schempp *et al.* (2002:99) and Sáiz, *et al.* (2009:25) highlighted the importance of reflective experience (internal learning) that coaches valued as a desire for constant improvement and progression in coaching development. Erickson *et al.* (2008:534) supported this by stating that the best method of learning is “by doing” (reflection in and on these experiences) as a primary source of coaching knowledge.

According to Nelson, Cushion and Potrac (2006:252) and Sáiz *et al.* (2009:21) knowledge construction in coaches is achieved through means such as:

1. Formal and non-formal education (specific courses, sports clinics, seminars).
2. Observing other expert coaches and information transfer among these.
3. Coaching experience itself with the consequent reflection.
4. Competition.
5. The existence of a mentor or some sort of structured mentoring program.



- **Mentoring**

Mentoring is another important off-field coaching role. A mentor is someone usually more experienced who works on a one-to-one basis with a less experienced person (the mentee). Coaches who choose a mentor may benefit in a variety of ways. They can acquire new skills and knowledge, receive feedback from a critical friend and receive support and learn how to deal with certain situations of a “political” or “sensitive” nature from a more experienced adviser.

- **Innovations**

Innovative coaches continually question accepted practices and are not afraid to try different things. A critical and questioning approach is important for the coach and innovative actions are usually based on superior knowledge development.

Recently, detailed categorisation of the skills and competencies of coaches have been carried out by Schempp *et al.* (2002:99) who used a questionnaire survey to identify the skills and knowledge performance sport coaches regularly monitored. They categorized the skills and knowledge that expert sport coaches sought to improve through regular reflection. Five constructs were found that represented the activities and qualities most often monitored by performance coaches:

- a) skills (i.e., things coaches do)
- b) knowledge base (i.e., things coaches know)
- c) personal characteristics (i.e., things coaches are)
- d) philosophy (i.e., things coaches believe)
- e) tools (i.e., things coaches use)

Anderson (1982, cited in Côte and Gilbert, 2009:309), introduced the broad conceptualisation of knowledge which represents a complex structure of coaches’



declarative (knowing) and procedural (doing) knowledge. Such a definition of knowledge includes coaches' personal behaviours, experiences and strategies to effectively and successfully meet the various demands of coaching. This model, suggests that a coach's work should be translated into some form of change in athletes' outcomes, whether it is performance or athletes' personal attributes, such as self esteem and satisfaction.

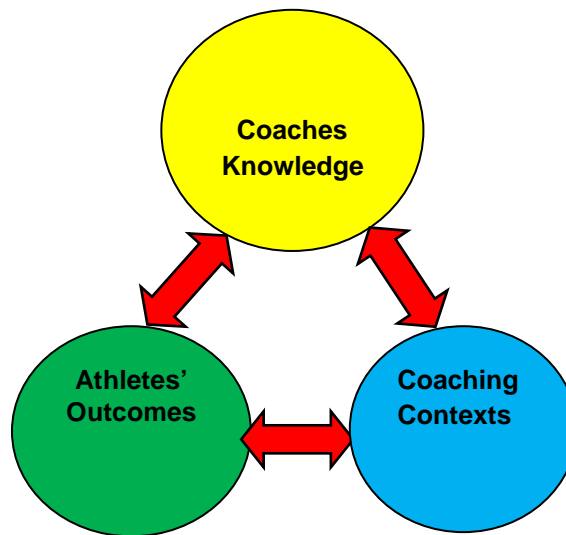


Figure 2.2: A formulated example of Anderson's broad conceptualization model of knowledge (Adapted from Anderson, 1993)

In Figure 2.2, above is a comprehensive summary of what Anderson's (1993 cited in Côte and Gilbert, 2009:309), model of knowledge of effective coaching and expertise integrates these three components as they interact with one another. Cregan, *et al.* (2007:339) stated that the coach's model is influenced by three peripheral components: coach's personal characteristics, athlete characteristics and contextual factors. Coaches integrate these into their operational strategies to determine which of the three primary components must be used to maximise the athlete's and team's development. Côte and Gilbert (2009:309) contends that conceptual models of coaching also acknowledge different contexts with athletes who vary in terms of age, developmental level, needs and goals.



Côte (2009) in a lecture suggested that based on various researches on coaching, there are two main principles related to coaching expertise or knowledge namely:

- a) Coaching behaviours, knowledge, characteristics and professional development are context-and athlete-dependent.
- b) Coaches work in various settings and use different types of behaviours and knowledge to effectively manage the central duties of coaching and the development of athletes.

○ **Coaches knowledge**

Berliner (1986:10 and 1991:147) suggested three important types of knowledge which comprised expertise in teaching or coaching:

- content knowledge, which is the knowledge or skill that is learned by the students;
- pedagogical knowledge, which is the underpinning educational theory of factors that affect student learning; and
- pedagogical-content knowledge, which is the unique ways in which content knowledge is conveyed to learners in specific settings

Further research conducted by Collinson (1996 cited in Côte & Gilbert, 2009:310) proposed a more comprehensive and simpler model of knowledge:

- professional knowledge (i.e., subject matter, curricular and pedagogical knowledge),
- interpersonal knowledge (i.e., relationships with students, the educational community and the local community) and
- intrapersonal knowledge (i.e., reflection, ethics and dispositions)



Côte & Gilbert (2009:310) described knowledge as the following:

- **Professional knowledge**

Professional knowledge categorises the large body of specialised knowledge required to coach. This type of professional knowledge has been the focus of coaching education, clinics and workshops. It is the “how to” version of coaching knowledge that has allowed many to define coaching expertise as the accumulation of professional knowledge. Exposure to professional knowledge out of context loses its relevance and minimises the importance of the reflective and complex interactional nature of effective coaching. This supports findings by Reade *et al.* (2008(a):324) who suggested that formal coaching development i.e. attending clinics, seminars and workshops combined with consulting other coaches or mentors is important development areas of knowledge.

- **Interpersonal knowledge**

Coaches, like teachers, do not work in isolation; their effectiveness depends on individual and group interactions (Côte & Gilbert, 2009:310). Kavussanu, Boardley, Vincent and Ring (2008:385) stated that coaching effectiveness is defined as the extent to which coaches can implement their knowledge and skills to positively affect learning and performance of their athletes. Côte and Gilbert (2009:310) suggest that to be successful, coaches have to interact regularly with their athletes and assistant coaches, parents and other professionals. Judge, *et al.* (2008:487) supports these findings, stating that cooperation between sport scientists and coaches helped enhancing performance outcomes of athletes. A multi-directional conceptualisation of coach-athlete interactions has been advocated in recent theoretical work that suggests that coaching is a complex, reciprocally influential process based on systems of social interactions. Côte and Gilbert (2009:312) suggested the following desirable outcomes should emerge from the interactions of coaches with athletes in any sporting environment: competence, confidence, connection and character. Therefore, it is important for coaches to continuously develop their interpersonal



knowledge base so that they can communicate appropriately and effectively with their particular athletes and other people (Côte & Gilbert, 2009:310).

- **Intrapersonal knowledge**

Intrapersonal knowledge refers to the understanding of oneself and the ability for introspection and reflection. Gilbert and Trudel (2005:33) developed a model of experimental learning based on coach reflection that comprise of six components: coaching issues, role frames, issue setting, strategy generation, experimentation and evaluation. They highlighted the requirement of intrapersonal knowledge in any definition of coaching expertise.

In summary, a coach's ability to maximise athletes' outcomes rests not only on extensive professional knowledge and interpersonal knowledge, but also on constant introspection, review and revision of one's own practice or coaching style. At some level, the three forms of knowledge will overlap. Collinson (1996) suggests, that the link among the triad of knowledge in coaching results in "good habits of thinking", "maturity", "wisdom" and "capacity to reason and make judgements" (Côte & Gilbert, 2009:311).

2.5.2 Coaching behaviour, characteristics and context of a coach

Another component that influences coaches' scientific coaching principles is the coach is seen as the most important person in determining the quality and success of an athlete's sport experience. Yet surprisingly, little research exists that identifies optimal coaching behaviours and factors that influence the effectiveness of particular behaviours (Williams, Kenow, Jerome & Rodgers, 2003:16).

Lynn (2010:9) suggests that leadership is crucial to success in sports and provides guidance, structure and support to individuals and teams as they strive for



achievement. Leadership is therefore also seen as an important characteristic of a coach.

According to Chelladurai (1993, cited in Sullivan & Kent, 2003:3) and Chelladurai's (1999:161; 2006:194) multidimensional model, leadership behaviours are a large part of the function of leaders' personal attributes. Several models and explanations have been put forth which indicate that these leader characteristics can be classified primarily as either personality or ability factors. Chelladurai's (1999:161; 2006:194) multidimensional model of leadership was put forth as an attempt to reconcile and synthesise its many precursors and has been particularly popular in assessing leadership in the sporting context. Whereas actual leader behaviour is the central variable in this model, consideration is also given to required leader behaviour and preferred (i.e. ideal) leader behaviour.

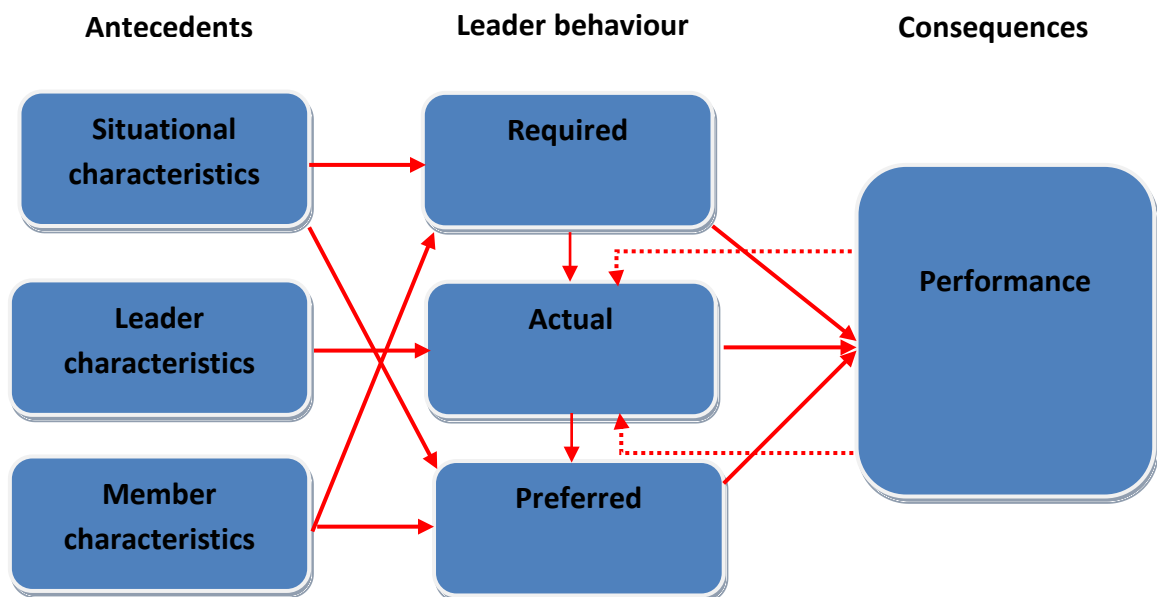


Figure 2.3: The multidimensional model of leadership (Chelladurai, 2006:194)

Figure 2.3, focuses on three states of leader behaviour and classifies the antecedent variables that determine these leader behaviours into situational characteristics and leader characteristics. The consequences (i.e. outcome variables) in the model are group performance and satisfaction.



Chelladurai and Saleh (1980:41) created an operational definition of leadership within sport: the Leadership Scale for Sport (LSS). The LSS identified five dimensions of leader behaviour that are especially relevant for coaches. Combined, these five dimensions provide conceptually distinctive categories of overall coaching behaviour (Sullivan & Kent, 2003:3).

Sullivan and Kent (2003:4) described coaching behaviour according to the following five dimensions:

- **Training and instruction behaviour**

Training and instruction is a dimension of coaching behaviour that is aimed at improving athletes' performance through various methods such as emphasising training, teaching specific skills and coordinating activities.

According to Chelladurai and Saleh (1980:42) these leadership behaviours are positively related to teaching technique and motivation confidence. Almost 30% of the variance in training and instruction was accounted for by these sub-factors of coaching efficacy. It appears that as coaches become more confident in their abilities to motivate their athletes and effectively teach the requisite skills, they perceive themselves as closer to ideal with respect to the leadership behaviours of teaching and instruction (Sullivan & Kent, 2003:8).

- **Democratic behaviour**

Democratic behaviour describes coaching behaviour that allows athletes greater participation in various decisions. Hollembeak and Amorose (2005:35) confirm that coaching behaviours are associated with athletes' motivation and in particular athletes' motivation seems more positively influenced by a democratic leadership style of coaching.



- **Autocratic behaviour**

The autocratic behaviour dimension describes coaches who make most decisions independently.

- **Social support behaviour**

Social support characterises behaviours of coaches' that demonstrate a care for the personal welfare of the athletes. This dimension also includes the creation and maintenance of a positive group atmosphere and emphasis on interpersonal relations.

- **Positive feedback behaviour**

Positive feedback describes coaching behaviour that reinforces the athlete by recognising and rewarding good performance.

Hoigaard, Jones and Peters (2008:248) research concluded that positive feedback, training and instruction and democratic behaviour are the three most preferred coach leadership behaviours irrespective of the current level of perceived success.

Chelladurai, Imamura, Yamaguchi, Oiniima and Miyauchi (1988:384) culturally suggest that leadership would be divergent among nations because of the effects of cultural differences. Their research also suggests that the intensity of the demands of the athletic situation would entail a convergence in leadership across nations.

This multidimensional scale of leadership in particular allows for a more in depth examination of the relationships also between efficacy and leadership as well. Given Chelladurai's conceptualization of the LSS and the findings by Feltz, Chase, Moritz and Sullivan (1999:765) regarding coaching behaviour, the following predictions can be made:



- Motivation and character building efficacy should predict the motivational factors of leadership (e.g. social support and positive feedback).
 - Strategy efficacy should predict decision making and task factors of leadership (e.g. democratic and autocratic behaviour, training and instruction).
 - Finally teaching efficacy should predict the training and instruction
-
- **Coaching contexts**

Coaching contexts are the unique settings in which coaches endeavour to improve athlete outcomes or results. Trudel and Gilbert (2006, in Côte & Gilbert, 2009:314) proposed a classification of three specific coaching contexts:

- a) recreational sport
- b) developmental sport
- c) elite sport

Prior to this, Lyle (2002:52) similarly recognised these three coaching contexts; however, he suggested two distinct forms of sport coaching based on the competitive level of athletes:

- Participation coaching
- Performance coaching

Therefore, given the fact that skills and knowledge demands differ within these various forms of coaching, it is important that coaches associate themselves with athletes for which their available skills/knowledge are suited.

In addition to the performance demands of the sporting environment, coaches must be aware of how the needs of athletes change across the developmental spectrum, from childhood to adulthood (Côte & Gilbert, 2009:315). Côte *et al.* (2009:315) used the Developmental Model of Sport Participation which highlighted the importance of developmentally appropriate training patterns and social influences, to propose a



typology of four different categories of coaches based on developmentally appropriate sport contexts:

- a) Participation coaches for children (sampling years: 6-12 years)
- b) Participation coaches for adolescents and adults (recreational years: ages 13 +)
- c) Performance coaches for young adolescents (specializing years: ages 13-15 years)
- d) Performance coaches for older adolescents and adults (investment years: ages 16 +)

This typology provides four generic coaching contexts based on a participation-performance continuum and a developmental spectrum from children to adults. The performance demands of a sport and the developmental level of its athletes are the two most important variables involved in defining a specific coaching context (Côte & Gilbert, 2009:315). Moreover, even within a single coaching process multiple contextual factors exist that differ compared to a coach, working in the same sporting event with a similar athlete at the same level, such as time of season, recent win-loss records, budget, facilities, equipment and the athletes themselves (Ford *et al.*, 2009:453).

Complexity in coaching can be reduced by using contextual factors to produce categories of coaches, categorising sports, skills and competencies and focusing on those skills in which performance coaches outperform participation coaches. Contextual factors in coaching are comprised of athletes' profile, competition profile or not, employment type, resources, expected outcomes, years of experience and the expertise of the coach. This research project will use the following different categories of coaches based on developmentally appropriate sport contexts in South African swimming:



- **Participation coaches**

- a) Sampling years: toddlers ages 4-6 years
- b) Sampling years: young children 7-12 years
- c) Recreational years: adolescents and adults 13 + years

- **Performance coaches**

- d) Specialization years: young children 9-12 years
- e) Specialization years: young adolescents 13-15 years
- f) Investment years: ages 16 + years

- **Athlete outcomes achieved through coaching context**

According to Horn (2008, cited in Côte & Gilbert, 2009:312), effective coaching results in either successful performance outcomes (measured either in terms of win-loss percentages, individual athlete development, or success at national or international level) or positive psychological responses on the part of the athletes (e.g., high perceived ability, self esteem, intrinsic motivational orientation or a high level of sport enjoyment and satisfaction).

Genevieve and Vallerand (2003:883) proposed a motivational sequence where coaches' personal orientation towards coaching, the context within which they operate, and their perceptions of their athletes' behaviour and motivation, influence coaches' behaviours. Also, coaches' behaviours in the form of autonomy-supportive behaviours, provision of structure and involvement, have a beneficial impact on athletes' needs for autonomy, competence and relatedness, which, in turn, nurture athletes' intrinsic motivation and self-determined types of extrinsic motivation. According to Amorose and Anderson-Butcher (2007 cited in Trzaskoma-Bicsérdy, Bognár, Révész & Géczi, 2007:485) this model, autonomy, competence and relatedness – as psychological needs - promote the development of an athlete's motivation as well as the desired outcome.



This framework could be used for conceptualising athletes' outcomes or results from a coaching perspective. According to Côte and Gilbert (2009:312) the following four desirable outcomes should emerge from the interactions of coaches with athletes in any sporting environment:

✓ **Competence**

Athletes' level of competence in their sport, as measured by different types of performance indicators, is one of the best outcomes of coaching. Nevertheless, it is often argued that coaching also involves providing the guidance that helps athletes become confident and self-reliant members of their sport and society. This is consistent with current views on "holistic coaching" as a way to nurture positive youth development (Côte & Gilbert, 2009:312).

According to Myers, Wolfe, Maier, Feltz and Reckase (2006 cited in Kavussanu *et al.*, 2008:385), coaching competency is the athletes' evaluations of their coaches' ability to affect the learning and performance of them as an athlete or team (Kavussanu *et al.*, 2008:385). Athletes' perceptions of motivation competence had a moderately large and positive relationship with their satisfaction with the coach.

✓ **Confidence, connection and character**

Sport can be a vehicle for athletes to develop confidence, connection with others and character. Thus, through their interactions with athletes, coaches have unique opportunities to influence their athletes' psychological growth. The Coaching Behaviour Assessment System has been used in several studies to examine coaches' influence on children's psychological development through sport (Côte & Gilbert, 2009:313). The Coaching Behaviour Assessment System was developed by Smith, Smoll and Hunt (1977, cited in Côte & Gilbert, 2009:313) as a coding system for observing and recording coaching behaviours during practices and games.



Coaching behaviours have shown that confidence building is one of the most important characteristics that coaches want to imbed in their athletes. The coach-athlete relationship influences athletes' confidence and should be at the forefront of coaching strategies in any coaching contexts.

Finally, research shows that coaches play a crucial role in enabling athletes to develop character, become a constructive and caring member of a sporting team and ultimately, a productive member of society. Sport should be seen as a medium in which citizenship qualities are learned – this objective should be important for all coaches (from performance to participation coaches) of all ages and levels of competition. Ultimately, coaching should result in positive changes in all four types of athletes' outcomes. The athletes' outcomes that should result from effective coaching as identified by Côte and Gilbert (2009:314) are indicated in Table 2.1.

Table 2.1: Athletes' outcomes that should result from effective coaching

(Côte & Gilbert, 2009:314)

Outcomes	Description
Competence	Sport-specific technical and tactical skills, performance skills, improved health and fitness, and healthy training habits
Confidence	Intense sense of overall positive self-worth
Connection	Positive bonds and social relationships with people inside and outside of sport
Character	Respect for the sport and others (morality), integrity, empathy and responsibility

2.5.3 Coaching efficacy and philosophy

Coaching performance and effectiveness is important to consider relative to athletic performance and participation in sports (Phillips, 2010:3). Most of the research (Denham & Michael 1981:39; Feltz *et al.*, 1999:765; Sullivan & Kent, 2003:2; Myers, Vargas-Tonsing & Feltz, 2005:129 and Kavussanu *et al.*, 2008:384) to date has



focused on the characteristics and behaviours of coaches in relation to their performance and effectiveness.

Feltz, *et al.* (1999:765) and Kavussanu *et al.* (2008:384) defined coaching efficacy as the extent to which coaches believe they have the capacity to affect the learning and performance of athletes. Performance in this sense also includes psychological, attitudinal and teamwork skills of athletes (Feltz *et al.*, 1999:765).

Coaching efficacy is therefore seen as a multi-dimensional construct, with four dimensions of coaching efficacy that includes coaching-specific sources of efficacy information as well as the effects or outcomes of coaching efficacy.

- **Game efficacy**

According to Feltz *et al.* (1999:766), Sullivan and Kent (2003:2) and Kavussanu *et al.* (2008:384) game efficacy refers to coaches' confidence or belief in their coaching ability during competition and their ability to lead the team or individual to a successful performance.

- **Motivation efficacy**

Motivation efficacy was defined as confidence in the ability to change the psychological states and abilities of athletes (Kavussanu *et al.*, 2008:384). According to Sullivan and Kent (2003:8) motivation and teaching efficacy were the predictors of positive feedback. Positive feedback refers to those behaviours coaches rely on to recognise and reward their athletes. Positive feedback as a preferred motivational technique for coaches is reasonably related to the confidence that coaches have in their teaching and motivational abilities. In contrast to envisioning these efficacies as predictive of the use of positive feedback, it seems a warranted conclusion that these dimensions mutually reinforce one another in the actual practise of coaching (Sullivan & Kent, 2003:9).



- **Teaching efficacy**

Teaching efficacy refers to the degree of confidence coaches have in their diagnostic and teaching skills.

- **Character building efficacy**

According to Sullivan and Kent (2003:9) and Kavussanu *et al.* (2008:384) character building efficacy involves coaches' perception of their ability to influence their athletes' personal maturation or development and positive sporting attitudes.

With respect to the sources of coaching efficacy, Feltz *et al.* (1999:766) model specifically mentioned coaching experience/preparation, prior success, perceived skill of athletes and school/community support. The authors found support for a variety of these proposed relationships. With a heterogeneous sample of 517 high school coaches, they found that previous experience, success and community support were significant predictors of coaching efficacy, particularly game strategy and motivation efficacy. Further, Malete and Feltz (2000:416) found efficacy to be significantly improved following coaching training programs. Myers *et al.* (2005:136) however found that the strongest source of efficacy information was perception of team or athlete ability and the weakest source was years of experience as a coach.

Feltz *et al.* (1999:767) stated that certain desirable outcomes for both coaches and athletes should result from high levels of coaching efficacy. Examples of these outcomes are commitment to coaching and the use of effective motivational techniques for coaches and satisfaction, performance, confidence and motivation for athletes. Figure 2.4 depicts the conceptual model of coaching efficacy constructed by Sullivan and Kent (2003:2).



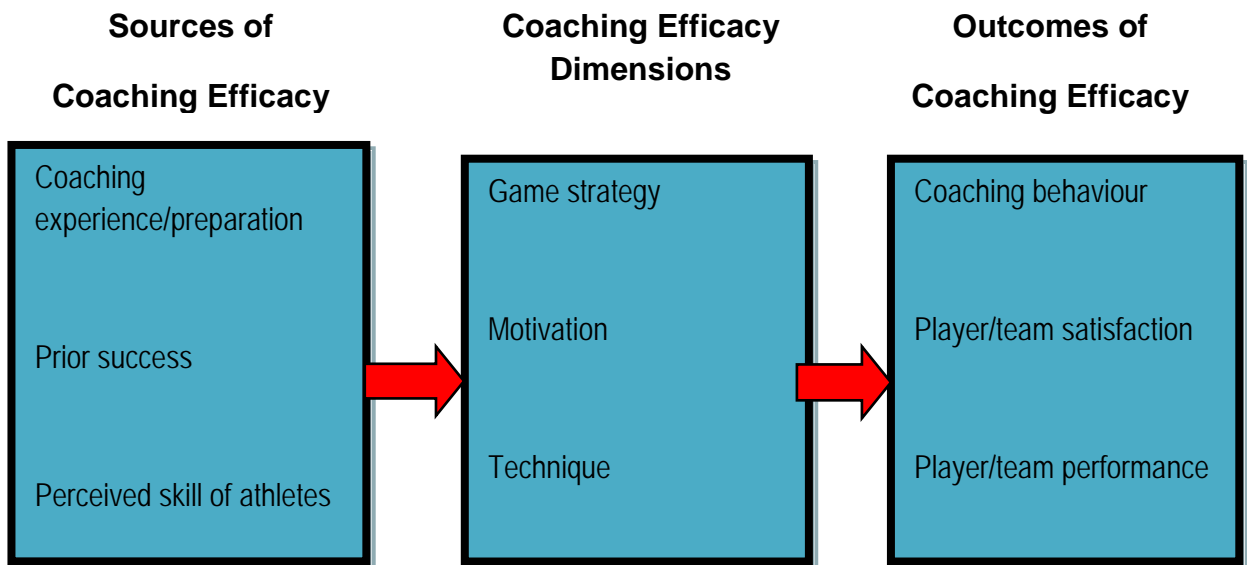


Figure 2.4: The conceptual model of coaching efficacy (Sullivan & Kent, 2003:2)

According to a study done by Kavussanu *et al.* (2008:384), coaching experience and gender did not significantly predict motivation or character building efficacy. Gender positively predicted game strategy efficacy: Male coaches had significantly higher levels of game strategy efficacy than females. Coaching experience was a positive predictor of technique coaching efficacy. A separate analysis showed that coaching experience was the only significant predictor of total coaching efficacy (Kavussanu *et al.*, 2008:394).

Myers *et al.* (2005:130) however found that the influence of years as collegiate coach, career-winning percentage and perception of team ability on dimensions of coaching efficacy did not differ for male or female coaches. However, perceived social support from the community and character building efficacy were different for male and female coaches (Myers *et al.*, 2005:130).



- **Self-efficacy**

Self-efficacy refers to the situation-specific belief that one can act and/or successfully produce a given outcome. Thus, self-efficacy pertains to contextualised judgements of personal capabilities. As such these perceptions are powerful as direct or indirect antecedents of behaviours and thought patterns (Sullivan & Kent, 2003:1). Subsequently according to Bandura (1997:37) self-efficacy influences behaviours such as success, effort and persistence and thought patterns such as goal setting and attributions.

- **Coaching effectiveness**

Effectiveness is concerned with the outcomes or results produced, whereas competence pertains to the skills possessed (Kavussanu *et al.*, 2008:385). Coaching effectiveness is defined as the extent to which coaches can implement their knowledge and skills to positively affect the learning and performance of their athletes (Kavussanu *et al.*, 2008:385). In Kavussanu *et al.* (2008:385) view, a coach can produce outcomes only if he or she has the required skills. Thus a coach who is perceived as effective is also likely to be perceived as competent.

The researcher would like to establish a profile of the attitudes and insights of swimming coaches in the Free State Aquatics Region towards scientific coaching principles. The researcher can then establish if the coaches' have the competence to be effective coaches', whether as a participant or performance coach.

As indicated previously, athletes' perceptions of coaching behaviours are hypothesised to play an important mediating role between coaching behaviours and athlete outcomes. These perceptions may also be affected by athletes' personal characteristics or individual difference between coach and athlete (Kavussanu *et al.*, 2008:386).



A related variable that has received very little attention to date in studies of perceived coaching behaviours is the match between athletes' and coaches' gender (Kavussanu *et al.*, 2008:386). This variable may have implications for athletes' perceptions of coaching behaviour or coaches' perceptions of the athlete. Coaches' sport experience as an athlete themselves or years of experience was another variable but did not significantly predict any coaching effectiveness related to gender of the athlete or coach.

Another variable according to the Kavussanu *et al.* (2008:387) study was sport experience which was seen as a negative predictor of athletes' perceptions of all dimensions of coaching effectiveness.

Côte (2009) in a lecture suggested that coaching expertise can be summarised with the model indicated in Figure 2.5.



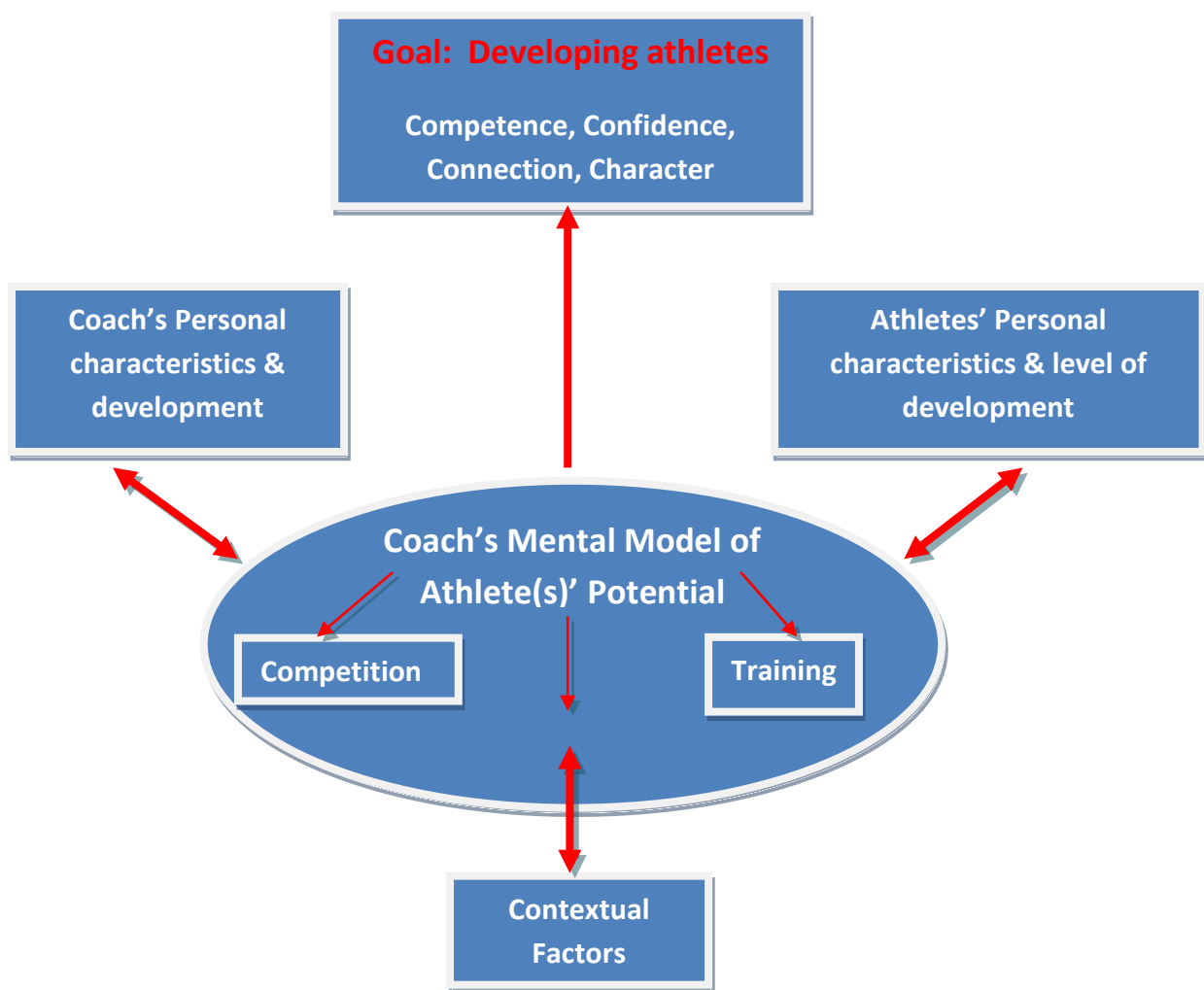


Figure 2.5: Coaching process expertise (Côte, Trudel, Salmela, Baria & Russel, 1995:10)

The components of the coaching model describe a coach's work from the coach's perspective. Central to the model are the competition, training and organisation components that are also defined as the coaching process. Three variables affect the coaching process: the coach's personal characteristics, the athletes' personal characteristics and level of development, and some contextual factors. These three variables are defined as the peripheral components. Finally, the goal and coach's mental model of athletes' potential are two additional factors which complete the model.



- **The goal**

The goal is defined as the most obvious task of the coach: developing athletes. The word *developing* remains a flexible term that can be adapted to accommodate various levels of coaching, from youth sport participants to Olympic athletes.

- **The coaching process**

The actions of the coach in the organisation, training, and competition components have a direct impact on the goal, and thus are defined as the coaching process. First, the organisation component involves applying one's knowledge towards establishing optimal conditions for training and competition by structuring and coordinating the tasks involved in reaching the goal. The task of organising can take place before, during, or after training and competition, and it includes categories such as planning training, working with assistants, working with parents, and helping gymnasts with personal concerns.

The second component of the coaching process was training, this involves applying one's knowledge towards helping athletes acquire and perform different skills in training. The type of intervention style preferred, the training of technical skills, mental skills and the use of simulation are examples of categories that characterise the training component.

Finally, the competition component consisted of using knowledge to help athletes perform according to their potential in competition. Included in this component were categories such as coaches' roles at the competition sites and on the competition floor. The competition, training, and organisation components are constantly monitored and adjusted by the coach during the coaching process according to how these three components interact and how they are influenced by each coach's mental model of athletes' potential.



- **Coach's mental model of athletes' potential**

The coach's mental model of athletes' potential, which is determined by a coach assessment of the peripheral components, represents the coach's mental representation of what needs to be done to reach the goal. It consists of the coach's knowledge of the actions that need to be performed in the organisation, training, and competition components.

It is proposed by Côte (2009) that the athletes' estimated potential can be raised or lowered, depending upon the effects of the peripheral components. However, the demands emanating from the coaching process are solved without affecting the coach's mental model of athletes' potential.

- **The peripheral components**

The peripheral components can have a positive or negative impact on the goal by affecting the coach's mental model of the athlete's potential. The three peripheral components are the coach's personal characteristics, the athletes' personal characteristics and level of development and some contextual factors. The coach's personal characteristics involve any variables that are part of the coach's philosophy, perceptions, beliefs or personal life that could influence the organisation, training or competition components.

Secondly, the component "athlete's personal characteristics" involves any variables dealing with the athlete's stage of learning, personal abilities, and other personal characteristics that could affect the coaching process.

Finally, the component "contextual factors" is defined as unstable factors, aside from the athletes and the coach, such as working conditions which need to be considered when intervening in the organisation, training and competition components.



The contextual factors component, just like the athletes' and coach's personal characteristics components, can positively or negatively affect the coaching process.

- **Philosophy of a coach**

The philosophy of the coach is another characteristic of a coach that is important in the coaching process. Coaches are influential in creating positive and achievement oriented sport environments and the development of a sound philosophy is the key to successful coaching (Collins, Barber, Moore & Laws, 2010:21). Similarly, Bennie and O'Connor (2010:309) stated that coaching philosophy is seen as a key ingredient to coaching success.

Collins *et al.* (2010:23) research concluded that there are seven general dimensions of coaching philosophy namely: coaching behaviour, defining success, development, expectations, fun, life lessons learned through sport and relationships. Bennie and O'Connor (2010:314) found that coach philosophy had four tags and one major property (refer to Table 2.2 below).

Table 2.2: Tags and properties in the coaching philosophy category (Bennie & O'Connor, 2010:314)

Tags	Property
Role of the coach	Player development on and off field
Develop the player and the person	
Educate the players	
Not purely focussed on results	

They indicate that the philosophy of the coach reflects the coach's goals, actions, values and approach to coaching, which in turn is underpinned by personal qualities and skills. The coach's philosophy forms the basis of what the coach believes is



necessary to: coach effectively, develop a successful program, and guide player development. Ultimately, the head coach's philosophy influences the manner in which he communicates with players and staff, organises the training environment, leads and manages the team. Bennie and O'Connor (2010:314) found that the articulation of a philosophy is critical to providing the team with direction, endowing players and coaches with on-and-off-field responsibilities and developing an appropriate framework for the team.

This correlates with the findings of Pyke (2001:4) who suggested that the coaches' role is defined by on and off field responsibilities. Nash *et al.* (2008:552) suggests that successful coaches demonstrate a clear development of their thoughts and depth of understanding of the complex and dynamic role of the coach and their own philosophy that underpins their coaching practice. Novice coaches initially see little value in a philosophy as they are attempting to cope with more tangible aspects of coaching practise, as they gain more experience and knowledge then coach philosophy becomes increasingly important for performance coaches.

2.6 Measurement of coaches' performance

Despite nearly 35 years of research and discussion, there still remains "a lack of precision in terminology and approach and a singular failure to relate effectiveness and expertise literature to any conceptual understanding of the coaching process" (Côte & Gilbert, 2009:307). For example, in some cases authors define coaching expertise or effectiveness by athletes' level of achievement (win-loss percentage) or athletes' personal attributes (satisfaction, enjoyment), while others define coaching expertise by a coach's years of experience (10 years of experience).

Until recently, South African Swimming Association accreditation framework rated swimming coaches by the following (swimsa.co.za):

1. Coach education (theoretical examination and attend coaching workshop)



2. Amount of hours spent alongside the pool deck coaching under supervision or as head coach (coaching experience)
3. Amount of swimmers achieving a certain performance criteria (athletes' level of achievement)

The stated criteria (rating coaches' level of expertise by athletes' level of achievement) could be considered a downfall and a detriment to the development of youth coaches and validity of this rating system can be seriously questioned. The question arises- is this considered an "effective" way in which to evaluate a coaches' knowledge and attitudes towards swimming coaching? Despite the emergence of these conceptual frameworks, there are no cohesive definitions of effective coaching or coaching expertise that underpin the processes, knowledge and behaviours involved in the development of athletes (Côte & Gilbert, 2009:308).

2.7 Promotion of swimming participation

Coaches can play an important role in youth sport experiences because their behaviours, standards and goals contribute to the motivational climate and to the developmental benefits attained by participating youth. Organised sport is promoted as an enjoyable and available mode of physical activity for youth with well established physical health benefits (Conroy & Coatsworth, 2007:672; Blanchard, Amiot, Perreault, & Vallerand, 2009:545).

Other benefits include personal and social development, as well as psychological well-being. Different social factors are susceptible to encouraging the motivation to participate in sports activities. Parents have been shown to play an important role, as well as the coach's approach having a direct impact on athletes' motivation to compete in sport (Blanchard, *et al.*, 2009:545). According to Stebbings, Taylor and Spray (2011:255) the interpersonal style employed by coaches has the potential to shape athletes' sport experiences.



There is also little information available on the goals that coaches have in working with young children in recreational sport programs and whether coaches change goals according to the ages of the children (Stern, Prince, Bradley & Stroh, 1989: 277).

One important social factor pertains to the coach's interpersonal relationship with the athlete. According to the cognitive evaluation theory, coaches' behaviours can be perceived in light of two interacting styles: a controlling style and an autonomy-supportive style. Coaches who use a controlling style will interact with their athletes in a highly directive manner and will tend to coerce their athletes to behave in a way that they think is right (Blanchard, *et al.*, 2009:546). A controlling environment is created when coaches use power-assertive techniques to pressure athletes into thinking, feeling and behaving in certain ways. They will use criticism or tangible rewards to manipulate athletes. This type of coach will also issue punishments (e.g. extra lengths or exercise repetitions) and embarrass athletes (e.g. by emphasizing past mistakes) to force them to comply with the coach's expectations and demands (Stebblings, *et al.*, 2011:255). This style of coaching is usually used in performance coaching.

By contrast, coaches who value and exhibit autonomy-supportive behaviours value the athletes' input and will allow their athletes to make choices within reasonable limits (Blanchard, *et al.*, 2009:546). They also provide a sound rationale for tasks, and acknowledge athletes' feelings and perspectives (Stebblings, *et al.*, 2011:255). Participant coaches allow their athletes to participate in sport with an element of fun, competence and autonomy value hereby enhancing mass participation in the sport. Therefore, the coach-athlete relationship plays a vital role for coaches to continuously stay motivated to coach and ensure continuous participation by swimmers.

Based on the self-determination theory, three basic psychological needs appear relevant: autonomy, competence and relatedness.



- The need for autonomy refers to the desire to be self-initiating in the regulation of one's actions and to be the origin of one's behaviours.
- The need for competence implies that individuals want to interact effectively with their environment in order to feel competent in producing desired outcomes and preventing undesired ones.
- Finally, the need for relatedness pertains to the desire to feel connected with significant others (Blanchard, *et al.*, 2009:546). Social factors foster perceptions of competence, autonomy and relatedness in individuals, self-determined forms of motivation (i.e., intrinsic motivation as well as identified and integrated regulations) tend to be enhanced and promote participation in sport.

Woolger and Power (2000:596) research showed that one of the best predictors of children's' continuing involvement in and enjoyment of sports is the development of an intrinsic as appose to an extrinsic motivation for sport involvement. One who is externally motivated is motivated by some type of external reward such as money or praise. Intrinsic motivation comes from within. Intrinsic motivation is based on the goals, interests and values of others (France, 2009). Behaviour of significant others can have a major impact on children's intrinsic motivation, namely parents or coaches. Parental behaviours that can also impact children's intrinsic motivation include support, involvement, expectations, rewards, punishments and directiveness (Woolger & Power, 2000: 596).

In conclusion coaching should be based on the evaluation of three integrated components: coaches' knowledge, athlete outcomes from a coaching perspective and coaching contexts. Coaches' insight can be defined by the integration of professional, interpersonal and intrapersonal knowledge. The athletes' outcomes of competence, confidence, connection and character are important for coaches to develop or instil in their athletes as sport (swimming) can be seen as a medium in which citizenship qualities are learned. Finally, athletes' outcomes and coaches' insight are characterised differently, at different stages of an athlete's development, in relation to the coach and participant context. These components should be seen



as important variables for coaches of all ages and levels of competition, which may lead to the promotion of swimming as a sport and the improvement of performance.

A model depicting the components that influence swimming coaches' scientific coaching principles is indicated in Figure 2.6. The model is based on the literature research conducted in this chapter.

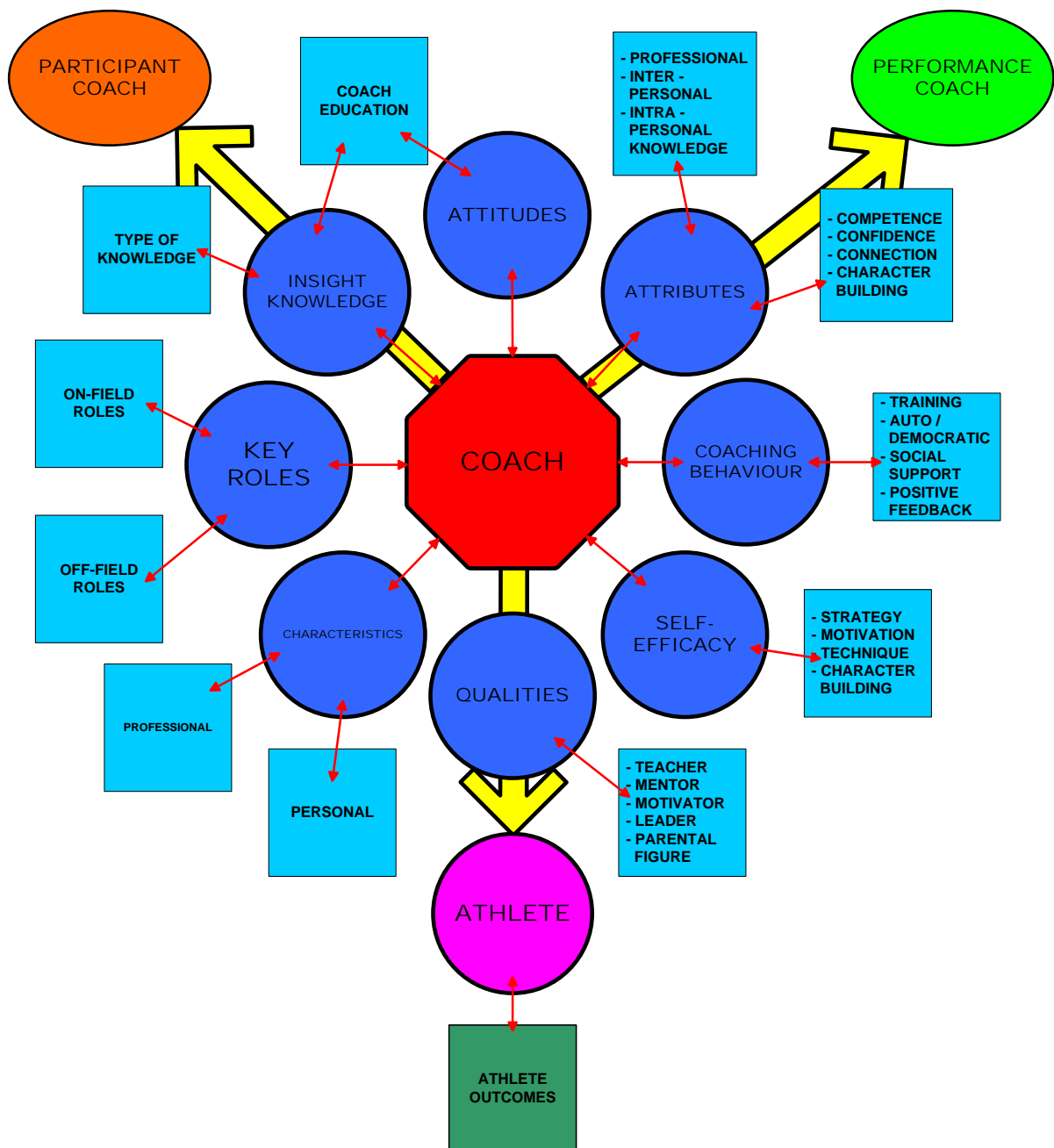


Figure 2.6: Model of various components that influence coaches' scientific coaching principles



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RESEARCH METHODOLOGY

- 3.1 Introduction**
- 3.2 Research design**
 - 3.2.1 Locality**
 - 3.2.2 Sample population**
 - 3.2.3 Development of assessment instrument**
 - 3.2.4 Application of instrument**
 - 3.2.5 Analysis of questionnaire**
 - 3.2.6 Pilot study**
- 3.3 References**

3.1 Introduction

A descriptive study of the attitudes and insights of swimming coaches in the Free State Aquatics Region towards scientific coaching principles was conducted. A description of the instrument that was used as well as the procedure for measurement will be discussed. In preparation for this dissertation, literature was collected from electronic databases such as Koveskat, Pubmed, EbscoHost (Academic Search Elite and Medline), academic journals and textbooks.

3.2 Research design

This study was done by sampling data via quantitative research (i.e. questionnaire).



3.2.1 Locality

A swimming coach who coaches in the Free State Aquatics Region was eligible to participate in the research study. According to the constitution of Swimming South Africa, the geographical areas of jurisdiction of, the Free State Aquatics Association is the portion of the Free State Province known as Xhariep District, Motheo District and Lejweleputswa District.

3.2.2 Sample population

Before the study commenced and the participants were recruited from schools and swimming clubs permission was granted by the Free State Education Department (Appendix E) and the Free State Aquatics Association (Appendix F). The sample size goal was to include the maximum number of swimming coaches in the Free State Aquatics Region. All schools in the Free State Aquatics Region were contacted with a swimming pool, that presented swimming as either an extramural activity recreational or competitively and physical education classes. Further all swimming clubs or private swimming coaches were invited to participate in the research study.

The inclusion criteria was any swimming coach who was at least 18 years of age or older and coaches swimming in the Free State Aquatics Region. Regardless of their level of qualification, whether water safety, learn to swim, school level, developmental or performance coaching were eligible to participate in the research study. In addition, all swimming coaches affiliated or not with Free State Aquatics Association were invited to participate in the research study. A total of 70 questionnaires were distributed and 42 participants volunteered to participate in the research study. All coaches were categorised as either a participant coach or a performance coach. In total there were 30 participant coaches and 12 performance coaches. The relative small sample size of performance coaches is due to the fact that Free State Aquatics Association only has 5 registered swimming clubs in the region.



3.2.3 Development of assessment instrument

The prospective subjects were requested to complete a questionnaire (Appendix C) assessing the attitudes and insights of Free State swimming coaches towards scientific coaching principles. No standardised questionnaire relating to any form of swimming coaching or swimming coaching in general could be found. The questionnaire was compiled using data from various research sources regarding insight and attitudes of coaches. The questionnaire contains the following four parts (Appendix C) described in the tables below containing the domain and justification of each question in the questionnaire:

Table 3.1: Personal and general coach information

1: Personal and general coach information	
Domain	Justification
Gender and age	Demographic information relating to gender and age was gathered for the impact of age and gender on swimming coaching. These variables may have implications for athletes' perceptions of coaching behaviour or coaches' perceptions of the athlete as well.
Highest level of competition coached	This variable addresses what the highest level of competition is that the participant has coached throughout his /her coaching career.
Highest level of swimming coaching qualification	This variable quantifies what was the highest level of swimming qualification that each participant attained.
Coaches years of experience in coaching	This variable quantifies years of experience each coach has as a swimming coach. Years of experience is one of the indirect methods of measuring coach performance.
Hours spent coaching a month	Years of experience teaching can also be weighed against amount of hours spent coaching in a calendar month or in a calendar year. Swimming South Africa uses 'hours logged coaching' as a tool for completion of their qualification courses. This data could give an indication as to what type of coach the participant is categorised as.



Calendar months spent coaching	A frequency of the various months of the year that participants predominantly coach was assessed and the difference between the participant and performance coach.	
Registered with Swimming South Africa Association	It is a requirement of Swimming South Africa that any swimming coach must be registered with their federation if they would like to coach swimming.	
Valid first aid proficiency certificate	Do all the participants have a valid first aid proficiency certificate as it is a requirement of Swimming South Africa. A first aid certificate is valid for three years only and coaches must stay current with the latest trends in the basic first aid principles and requirements of CPR should an emergency situation arise at a coaching facility.	
Type of coach	Coaches were quantified into two types of coaches; a participant or performance coach. Depending on the goal of the coach whether its participation or performance coaching.	
Categorised developmentally appropriate age groups coached	Participants indicated what developmentally appropriate age groups they coached.	
	Participation coaches	Performance coaches
	Sampling years: toddlers ages 4-6 years	Specialisation years: young children 9-12 years
	Sampling years: young children 6-12 years	Specialisation years: young adolescents 13-15 years
	Recreational years: adolescents and adults 13+ years	Investment years: ages 16 + years

In Section A of the questionnaire further investigation with regard to the assessment of coach performance, knowledge acquisition and various sources, areas or components of coach development and education took place. This was measured according to a five point Likert scale ranging from not important to very important



(Table 3.2). Each coach was asked to rate each variable according to this five point Likert scale.

Table 3.2: Five point Likert scale

Likert rating scale				
Not Important	Slightly Important	Average Importance	Important	Very Important
1	2	3	4	5

Table 3.3: Assessment of coach performance, knowledge acquisition, various sources, areas and components of coach development

2: Coach performance, knowledge acquisition, various sources, areas and components of coach development	
Domain	Justification
Coach performance criteria	<p>Côte and Gilbert (2009:307) established that coach performance is measured indirectly by the following three criteria:</p> <ol style="list-style-type: none"> 1. Results of athletes 2. Personal attributes gained (satisfaction, enjoyment, self-esteem, competence etc) by athletes 3. Coaches years of experience
Coach knowledge acquired or gained	<p>Collinson (1996 cited in Côte & Gilbert, 2009:310) proposed there are three important types of knowledge which comprised expertise in coaching:</p> <ol style="list-style-type: none"> 1. Professional knowledge 2. Interpersonal knowledge 3. Intrapersonal knowledge



Learning methods of coach education	Coaches learn through different methods of coach education when acquiring knowledge. A distinction is made between the three methods of learning according to Young, Jemczyk, Brophy and Côte (2009:398), Reade, Rodgers and Spriggs (2008:338) and Erickson, Bruner, Macdonald and Côte (2008:529): <ol style="list-style-type: none"> 1. Mediated learning 2. Unmediated learning 3. Internal learning
Development areas and sources of knowledge	Coaches acquire knowledge from various sources of knowledge development and areas of knowledge.
Contribution of other professionals towards development of performance	There are various multi disciplinary professions related to the development of the coaches' knowledge base and subsequent improvement of performance.

In section B of the questionnaire information regarding the important characteristics, strategies and roles of an ideal swimming coach was gathered (Table 3.4). Numerical values were awarded to each characteristic, strategy and role of coach in the form of a five point Likert scale (Table 3.2). Section C of the questionnaire data was collected regarding the important characteristics, strategies and roles of the participant, as a swimming coach which he / she utilises in current practise (Table 3.5). Furthermore a comparison of ideal versus current practise of coach characteristics, strategies and roles of a coach were established.



Table 3.4: Coach characteristics, strategies and roles of an ideal swimming coach

3: Coach characteristics, strategies and roles of an ideal swimming coach	
Domain	Justification
Characteristics of an ideal coach	<p>Coaches need to utilise various ideal characteristics in order to improve participation or performance depending on what type of coach they are and what developmentally appropriate age group they are coaching. The characteristics are:</p> <ul style="list-style-type: none"> • Knowledge • Innovation and creativity • Passion and enthusiasm • Inspirational • Love of the sport • Accept mistakes and imperfections • Controlled emotion (patience) • Dedicated hard worker • Disciplined • Competitive • Consistent and organised • Professional • Confident • Trustworthy
Strategies of an ideal coach	<p>Coaches need to utilise various ideal strategies in order to improve participation or performance depending on what type of coach they are and what developmentally appropriate age group they are coaching. The strategies are:</p> <ul style="list-style-type: none"> • Maximise swimmers strengths • Critical decision making • Integrate personal and professional life • Demonstrate or teach the skills of his/her sport • Develop swimmers abilities (eg. stroke, potential, skill) • Promote good sportsmanship and moral character



	<ul style="list-style-type: none"> • Instil an attitude of respect for others • Help swimmers to maintain confidence in themselves • Motivate and build self-esteem in swimmers • Build self-confidence in swimmers • Manage your skills as a coach • Emotional control as a coach
Roles of an ideal coach	<p>Coaches need to utilise various ideal roles in order to improve participation or performance depending on what type of coach they are and what developmentally appropriate age group they are coaching. The roles are:</p> <ul style="list-style-type: none"> • Teacher or instructor • Parental figure • Mentor • Friend • Leader • Expert • Motivator

Table 3.5: Current coach characteristics, strategies and roles of a swimming coach utilised in current practise

4: Current coach characteristics, strategies and roles of an swimming coach utilised in practise	
Domain	Justification
Characteristics of a coach in current practise	Coaches utilise various characteristics in current practise in order to improve participation or performance depending on what type of coach they are and what developmentally appropriate age group they are coaching.
Strategies of a coach in current	Coaches utilise various strategies in current practise in order to improve participation or performance depending on what



practise	type of coach they are and what developmentally appropriate age group they are coaching.
Roles of a coach in current practise	Coaches utilise various roles in current practise in order to improve participation or performance depending on what type of coach they are and what developmentally appropriate age group they are coaching. A comparison of ideal versus current practise characteristics, strategies and roles are established between participant and performance coaches.

The questionnaire was further investigated and the comparison between participant and performance coaches was established.

3.2.4 Application of the instrument

Research was first conducted to estimate how many participants would be eligible to partake in the study by assessing how many schools in the Free State Aquatics Region had a swimming pool and conducted coaching. There are in total 198 schools in Bloemfontein and the outlying area but only twenty had swimming pools. There were four schools whose pools were closed due to high maintenance costs and lack of interest or participation in swimming. The relevant teacher who was responsible for swimming or the sport coordinator of the school's contact details was obtained as a reference for further communication about the research. There are also five elite swimming clubs in Free State Aquatics Region whose information was available from Free State Aquatics website. All schools who partake in swimming from outside of Bloemfontein are affiliated with one of the clubs of the Free State Aquatics Region.

Questionnaires were distributed during the last term of 2010 and first term of 2011, to all the relevant schools and clubs coaching swimming. Swimming is seen as a summer sport at schools as the majority of pools are not heated. Therefore,



swimming is only coached at school level from October to March every year during the summer months in South Africa. Only club coaches are able to coach throughout the year.

After telephonic communication with all the swimming clubs and involved teachers or sport coordinators of schools, the questionnaires were hand delivered or distributed via email. The testing procedures, risks, benefits, and confidentiality of information were explained to each participant in a language of their preference (Appendix A). Participants then signed an informed consent form (Appendix B) declaring the giving of accurate information, voluntary participation, and the use of information for scientific purposes. Questionnaires were then collected or returned via email after completion.

3.2.5 Analysis of questionnaire

Data was captured from the data forms to Microsoft Excel by the researcher. Analysis was done by a statistician using SAS Version 9.1.3. (Cary, N.C., 2004). Frequencies and percentages were calculated for categorical data. For numerical data, means and standard deviations were calculated where data was evenly distributed, and medians and percentiles were calculated where data was not normally distributed.

The Student's t-test was used to compare mean values between the two groups (Trochim, W. M. K., 2006) whereas the Kruskal-Wallis test was used to compare median values (Breslow, 1970:579). The median was used in this study because of the skew data distribution. The appropriate p-values and/or confidence intervals were reported. The mean or median differences were calculated within the groups for the dependent data. The Student's t-test or Wilcoxon signed rank test was used to test for significant median differences (Wilcoxon, 1945:82).

A Fisher Exact test was used to test for significant frequency differences. A significance level of ($p = < 0.05$) was used throughout the research study. Where



no significant difference was achieved a level of ($p = \geq 0.05$) was used throughout the research study.

3.2.6 Pilot study

A pilot study with five coaches was conducted three months prior to the study. It consisted of 5 questionnaires which were distributed during the first term of 2010, to 1 school and 1 club coaching swimming, to determine the effectiveness of the proposed questionnaire. The questionnaire was found effective in testing the proposed objectives.



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4

RESULTS & INTERPRETATION

- 4.1 Introduction**
 - 4.2 Demographic information**
 - 4.3 Coaching development**
 - 4.4 Characteristics, strategies and roles of the ideal coach**
 - 4.5 Characteristics, strategies and roles coaches utilise**
 - 4.6 Ideal versus current practice amongst swimming coaches**
 - 4.7 References**
-

4.1 Introduction

In this study, data was gathered about the attitudes and insights of swimming coaches towards scientific coaching principles in the Free State Aquatics Region (FSA). All respondent coaches were required to categorise themselves as either being a participant or performance coach. The main goal of a performance coach is to deliver swimmers for national and international competitions while, participant coaches do not have swimmers competing competitively but rather provide an introduction to the sport of swimming and teach water safety principles. Many performance coaches also teach both on a participatory as well as a performance level.

Data was gathered about the age, gender and coaching standards of coaches (participant and performance coaches). The coaching standards included the analysis of qualification level of swimming coaches, years of coaching experience, and coaches registered with Swimming South Africa (SSA). Data was further



compared by the type of coach and whether coaching development and/or performance coaching took place. Development and acquisition of knowledge preferred learning methods of coaches, performance criteria and multi disciplinary involvement in coach performance and participation, were assessed. Data was also gathered about the ideal characteristics, strategies and roles swimming coaches portray versus what is used in current practice.

A total of 70 questionnaires were distributed to all the school and club coaches in the FSA Region in 2011. Forty-two questionnaires were returned for data processing constituting a 60% response rate.

4.2 Demographic information

Various demographic data was collected to create a better understanding about the current status of swimming coaches in the FSA Region. This included data about gender, age of coach; level of coaching; certification and qualification of coaches; and experience of coaches. Of the 42 respondents, most were participant coaches (Figure 4.1).

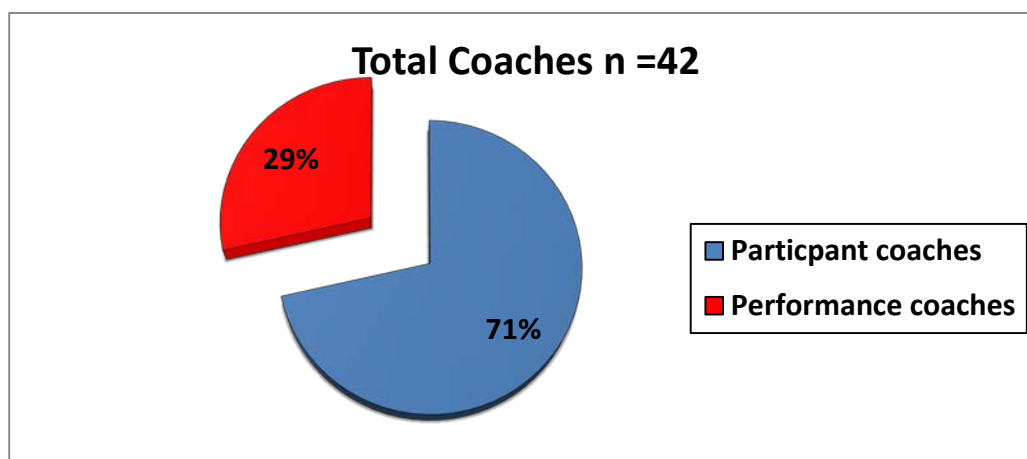


Figure 4.1: Type of coaches



4.2.1 Gender and ages of swimming coaches

Gender

In the male predominant world of coaching in sport, this study revealed that the majority of swimming coaches in the FSA Region were female (78.6%) (Table 4.1). This is also reflected among participant coaches where the majority was female coaches (90%), however among performance coaches the numbers of females and males were equally distributed. The results obtained with the Fischer Exact test indicated on the five percent ($p < 0.05$) level a significant difference in the mean frequency scores between participant and performance coaches. It was clear that participant coaches female gender was significantly higher ($p = 0.0092$) than performance coaches.

Table 4.1: Gender frequencies of all coaches, participant and performance coaches

Gender	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
Female	33	78.6	27	90	6	50
Male	9	21.4	3	10	6	50
Total	42	100	30	100	12	100

It is understood that the gender of a coach plays a major role in influencing the development of athletes. Coaches positively affect athletes performance, behaviour and psychological and emotion wellbeing (Kavussanu, Boardley, Vincent & Ring, 2008:383). This study revealed that most of the swimmers were taught by female coaches and it is therefore expected that the development of the swimmers in the Free State Aquatics region would have a substantial female influence. These results were contradictory to a male predominant world of coaches where female coaches



are slowing closing the gap on male coaches with a increase of 46% of female coaches holding a coaching qualification (Townend & North, 2007:1).

Age

The majority of swimming coaches in the FSA region are 50 years and younger (78.6%). This distribution was also reflected amongst the participant coaches (80%) and performance coaches (75%) (Table 4.2). Participant coaches' median age was 40.5 years (inter-quartile range: 26 to 48 years). Performance coaches' median age was 43.5 years (inter-quartile range: 22.5 to 50.5 years). The results obtained with the Fischer Exact test indicated a non significant ($p = \geq 0.05$) difference in the mean frequency scores between participant and performance coaches. Performance coaches' ages was not significantly higher ($p = 0.1443$) than participant coaches. Similarly, the results obtained with the Kruskal-Wallis test indicated a non significant ($p = 0.88925$) difference in the mean median age scores between participant and performance coaches.

Table 4.2: Coach age frequencies of all coaches, participant and performance coaches

Age interval (years)	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
18-30	16	38.1	11	36.7	5	41.7
31-40	4	9.5	4	13.3	0	0
41-50	13	31	9	30	4	33.3
51-60	9	21.4	6	20	3	25
Total	42	100	30	100	12	100



Age vs gender

Females median age was 40 years (inter-quartile range: 26 to 48 years) compared to males median age of 43 years (inter-quartile range: 30 to 47 years). The results obtained with the Kruskal-Wallis test again indicated a non significant ($p = 0.8061$) difference in the mean median scores between all coaches' age and gender.

It is understood that the age and gender of the coach also plays a major role in influencing the development of athletes (Kavussanu, *et al.*, 2008:383). Comparatively to this research study, which revealed that the majority of swimmers are taught by young female coaches and it is expected that the development of swimmers will have a young woman's perspective influence on swimming development and performance.

4.2.2 Qualification and certifications of swimming coaches

In South Africa it is compulsory for all coaches according to SSA to have the appropriate qualifications and certifications. Various data was collected on the qualification levels, amount of coaches registered with SSA and if they have a valid first aid certification in the FSA Region.

According to Swimming South Africa (SSA) if certain minimum qualifications (learn to swim qualification - LTS), are not met then public standards and safety assurance cannot be guaranteed where the highest quality of teaching sensitivity and safety guidance is assured. Every swimming coach must therefore, at minimum, be qualified as an SSA LTS coach and be registered with SSA on an annual basis. Coaches must have a current first aid level one certificate and have risk insurance cover through SSA.



Coaches' accreditation is renewable every four years and is subject to a point system which must be earned through a continuous development program of 30 points over a period of four years. This program develops the standard of teaching, health and safety among coaches and swimmers. It strives to ensure that coaches are kept abreast of international developments and provides workshops, conferences etc., to improve safety, personal development, business development, stroke and technique specialisation.

Qualification level

There are various levels of training qualifications for swimming coaches in South Africa. These levels vary from the most basic coaching activities to sophisticated advanced coaching (Level 3). Table 4.3 contains the descriptions of the various levels of swimming coaches as structured by the National Federation of Swimming South Africa (Swimsa):

Table 4.3: Swimming South Africa's coaching qualification system (Swimsa)

Qualification	Description
Learn to swim	Any coach who is at least 18 years of age and has a valid first aid certificate and has completed a learn to swim qualification certificate.
Level 1	A coach who has completed the level one certification of Swimming South Africa and has completed the minimum qualification level to be involved with club training.
Level 2	A coach who has completed the level two certification course of Swimming South Africa and is involved with club training. These coaches normally represent their province at domestic national competitions.
Level 3	A coach who has completed the level three certification of Swimming South Africa and is involved with club and provincial training. They have also represented South Africa at International level as a coach.



The majority of the swimming coaches (59.5%) had a low level of qualification, while more than a third had no qualification (35.7%) (Table 4.4). Less than 4.8% of the swimming coaches had a high qualification level and had represented South Africa at international competitions. Almost half (46.7%) of participant coaches were not qualified, while a further 33.3% had the minimum qualification required for a participant coach namely, a 'Learn to Swim' qualification. Of the performance coaches, 41.7% had a 'Learn to Swim' qualification which is a pre-requisite for level one coaching. Level one coaching is the minimum requirement for club level coaching according to SSA. One of the performance coaches has no qualification level at all and is coaching at competition level, with no formal coaching background.

The results obtained with the Fischer Exact test indicated on the five percent level a significant difference ($p = 0.0250$) in the mean frequency scores between participant and performance coaches. As expected performance coaches demonstrated a higher qualification level than participant coaches.

Table 4.4: Coach qualification frequencies of all coaches, participant and performance coaches

Qualification level	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
No qualification	15	35.7	14	46.7	1	8.3
Learn to swim coach	15	35.7	10	33.3	5	41.7
Level 1 coach	10	23.8	6	20	4	33.3
Level 2 coach	0	0	0	0	0	0
Level 3 coach	2	4.8	0	0	2	16.7
Total	42	100	30	100	12	100



Although little is known about the extent of the qualifications of swimming coaches worldwide, the data displayed contrastingly results when compared to a UK coach tracking research study, where most coaches had high level qualifications (Timson-Katchis & North, 2010:3).

Registration with Swimming South Africa

The majority of coaches (61.9%) were never registered with SSA. Only 23.80% of all coaches currently were registered with SSA and 14.30% were previously registered with SSA. Therefore, 76.2% of all current coaches were not compliant with SSA rules and regulations pertaining to a coach (Swimsa). It is expected of participant coaches to be affiliated with SSA so that standards can be adhered to in creating a safe and professional environment for all swimmers. However, in this study only 30% of the participant coaches were registered with SSA. Although it is compulsory in South Africa for performance coaches to be registered with SSA as a swimming club in order to be eligible to compete at provincial and national championships, only 41.7% of performance coaches currently were registered. The implications are that the majority of coaches may not be adhering to the standards or guidelines of SSA coaching. Therefore, SSA is unable to apply minimum control over swimming coaching and the standard of coaching in the FSA region.

Table 4.5: Coach registration frequencies of all coaches, participant and performance coaches

Registration	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
Never registered	26	61.9	21	70	5	41.7
Currently registered	10	23.8	5	16.7	5	41.7
Previously registered	6	14.3	4	13.3	2	16.6
Total	42	100	30	100	12	100



Valid first aid certification

Only 35.7% of all coaches had a valid first aid certificate. A third of participant coaches had a valid certificate, while 41.7% of performance coaches had a valid first aid certificate. The results obtained with the Fischer Exact test indicated a non significant ($p = 0.7260$) difference in the mean frequency scores regarding a valid first aid certification between participant and performance coaches. Although it is not suggested that drowning takes place during coaching sessions, it is pivotal to all coaches to have a valid first aid certificate so that they are able to assist children or swimmers with the basic first aid or cardio pulmonary resuscitation (CPR) during a medical emergency. Coaches' work with children in water, which is seen as a risk factor because drowning incidents, could occur. Dangers exist wherever water is present and death resulting from submersion in water is likely to occur rapidly (Dean & Mulligan, 2009:35). Research conducted by Burrows, Van Niekerk and Laflamme (2010:268) stated that approximately two-thirds of all children that died before the age of 14, died due to drowning in South Africa in 2007. Drowning is also one of the top five causes of fatal injuries in urban South Africa (Burrows, *et al.*, 2010:268).

Table 4.6: Coach valid first aid certification frequencies of all coaches, participant and performance coaches

Certification	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
Valid certification	15	35.7	10	33.3	5	41.7
No certification	27	62.3	20	66.7	7	58.3
Total	42	100	30	100	12	100



4.2.3 Coaching levels of swimming coaches

In South Africa there are various levels of swimming coaching, either as an activity or sport. Various data was collected on the coaching levels at which coaches were coaching and the various developmental age groups of swimmers coached by both the participant and performance coaches. Respondent coaches had to identify which type of coach they were (participant or performance coach). In addition, coaches identified all the developmental age groups they coached according to the aim of each swimmer's catergorised age sub-divisions.

Highest coaching level of swimming coaches

More than half (52.4%) of all coaches were coaching at school level; secondary school level (28.6%), primary school level (21.4%) and another 2.4% as either an extramural activity or as part of a physical education class at school. Another 14.3% of the participants taught 'Learn to Swim' and the remaining 34% were involved in performance coaching; provincial (14.3%), national (9.5%) or club level (9.5%). The results obtained with the Fischer Exact test indicated a significant difference ($p = 0.0010$) on the five percent level in the mean frequency scores between participant and performance coaches. Performance coaches coach at significantly higher levels than participant coaches.



Table 4.7: Highest coaching levels of all coaches, participant and performance coaches

Coaching levels	All coaches		Participant coaches		Performance coaches	
	n	%	n	%	n	%
Water safety	0	0	0	0	0	0
Learn to swim	6	14.3	6	20	0	0
PT teacher	1	2.4	1	3.3	0	0
Primary school	9	21.4	9	30	0	0
Secondary school	12	28.6	11	36.8	1	8.3
Club	4	9.5	1	3.3	3	25
Provincial	6	14.3	1	3.3	5	41.7
National	4	9.5	1	3.3	3	25
Total	42	100	30	100	12	100

A pie chart was used to graphically represent the highest activity distribution of coaching levels of all swimming coaches (Figure 4.2).

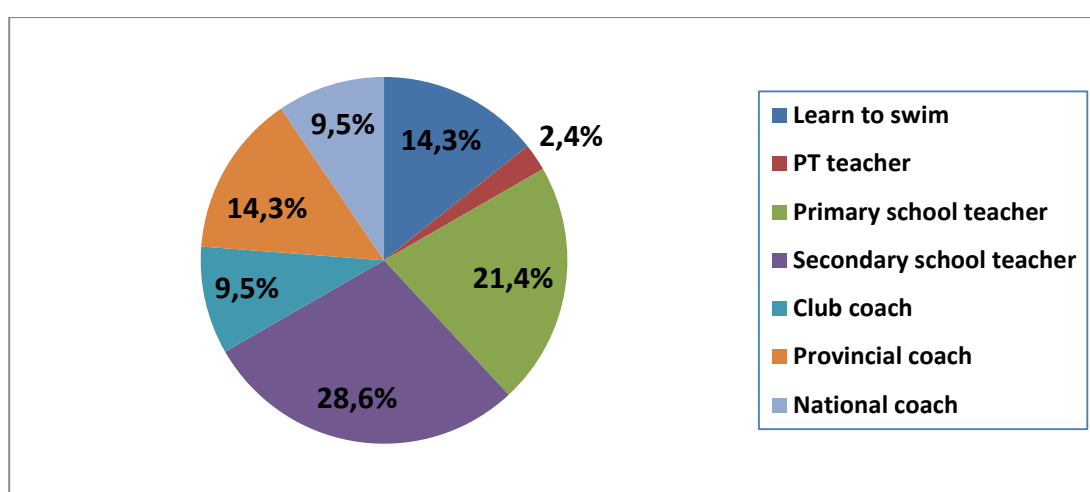


Figure 4.2: Frequency distribution of highest coaching level of all swimming coaches



Participant coaches also coached mainly at school level; either at secondary (36.8%) or primary school level (30%). A quarter of performance coaches taught at the highest level of coaching namely, national level (25%). Performance coaches taught mostly at provincial level (41.7%), which was viewed as the most competitive form of national competition in South Africa. The remaining performance coaches strove to excel at club level (25%) and there was only one secondary school coach. It is noteworthy that a total of 9.9% of participant coaches coach at a competitive level; club (3.3%), provincial (3.3%) or national level (3.3%). Therefore, some participant coaches have already reached a categorised level of a performance coach through coaching at provincial and national level but they are under qualified according to the coaching qualification structure of SSA.

A bar chart was used to graphically represent the highest activity distribution of coaching levels of participant versus performance coaches (Figure 4.3).

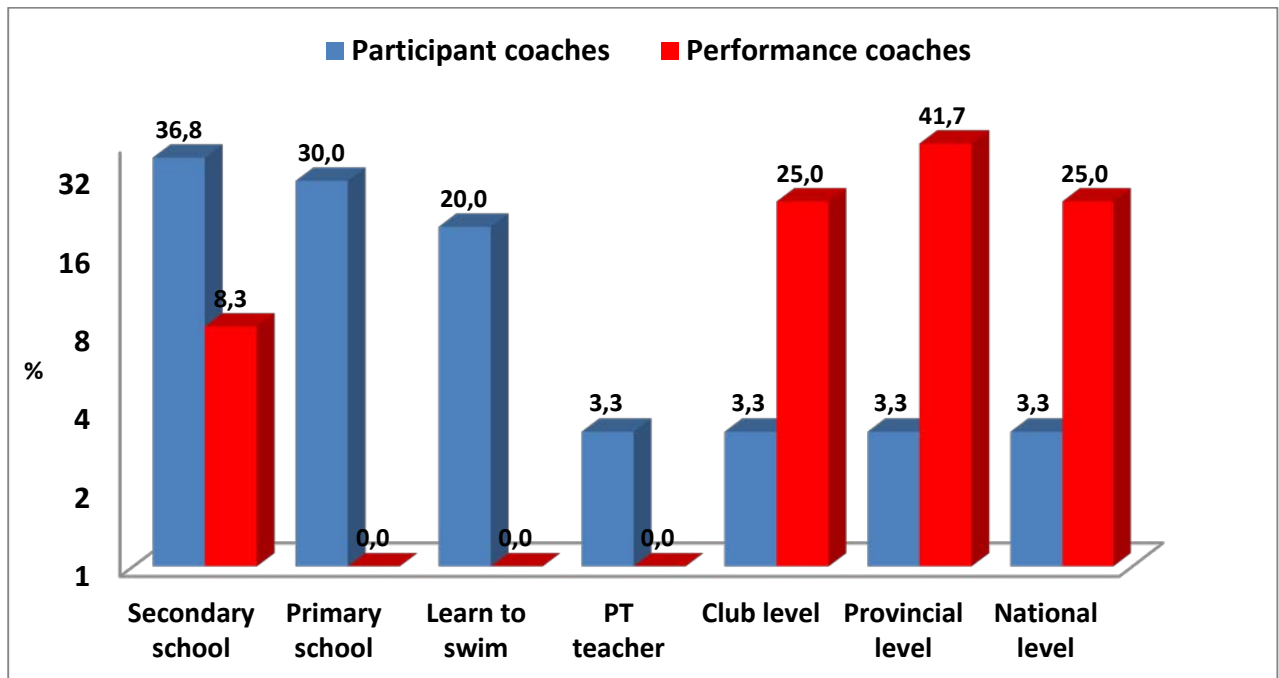


Figure 4.3: Comparative frequency distribution of highest levels of swimming coaching of participant and performance coaches



Developmental age groups coached

Participant coaches' coached young children (63.3%), adolescents and adults (43.3%) and toddlers (30%) (Table 4.8). Participant coaches' main goal as a coach is to inspire an element of fun and introduce children to swimming and water safety. Participant coaches also perform a performance coaching role for school galas etc. If they identify potential swimmers who could excel in the sport they would recommend them to an affiliate coach with a swimming club to attain more professional performance coaching.

Table 4.8: Developmental age groups coached by participant coaches

Participant Coaches												
	Developmental age groups assigned to Participant coaches						Developmental age groups assigned to Performance coaches					
	Toddlers (4-6 yrs)		Young children (6+-12yrs)		Adolescents & adults (13+ yrs)		Young children (9-12yrs)		Young adolescents (13-15yrs)		Adults (16+ yrs)	
Coaches	n= 9	30%	n=19	63.3%	n=13	43.3%	n=3	10%	n=3	10%	n=0	0%

There is a clear distinction between the categorised participant and performance coaches regarding developmentally appropriate age groups coached. Both participant and performance coaches teach some or all of the age groups. The reason for this was that some performance coaches teach both developmental 'Learn to swim' training in the morning as part of participant coaching, while the older children were at school and in the afternoon they coach performance swimming. Most school swimming teachers are participant coaches who help with stroke correction and choose a team to compete at inter-school galas. This is a more



competitive environment and can be considered performance coaching and as a result is achieved and granted.

According to Lyle (2002:54) participant coaching is distinctive because of the following:

- competition performance is not emphasised
- participants are less intensively engaged with sport
- sport performance components are rarely given individual attention (e.g. physical conditioning, psychological training)
- objectives are characterised by short-term horizons and immediate satisfactions (e.g. fun, enjoyment, motivation)
- there is more focus on individual sessions (episodic) than on an integrated, progressive process
- key skills are delivery based rather than planning based
- the “coaching contract” is less distinctive
- in the context of these distinctive features, relatively few boundary thresholds of the coaching process are triggered.

The majority of performance coaches coached young adolescents (91.7%), young children (83.3%) and adults (50%) (Table 4.9). Their main goal of coaching as a performance coach is to encourage a sense of competitiveness and help the child perform.



Table 4.9: Developmental age groups coached by performance coaches

Performance Coaches													
	Developmental age groups assigned to Participant coaches						Developmental age groups assigned to Performance coaches						
	Toddlers (4-6 yrs)		Young children (6+-12yrs)		Adolescents & adults (13+ yrs)		Young children (9-12yrs)		Young adolescents (13-15yrs)		Adults (16+ yrs)		
Coaches	n= 4	33.3%	n=7	58.3%	n= 4	33.3%	n=10	83.3%	n=11	91.7%	n=6	50%	

According to Lyle (2002:54) performance coaching is distinctive because of the following:

- there is a more intensive commitment to a preparation program
- there is a more obvious attempt to influence / control performance variables
- individual performance components are identified separately in the program
- objectives are both long and short term, and specific competition goals are identified
- the intervention of the coach is integrated into an integrated and progressive process (e.g. periodisation program)
- swimmers operate within recognised competition structures in their sport
- although delivery skills are important, there is more emphasis on decision making and data management (e.g. recording, monitoring, planning and analysis)
- there is a more extensive interpersonal contact between the coach and swimmers.

The results found in this study were contradictory to Nash, Sproule and Horton (2008:540) who found that the least experienced coaches operate at the stages most critical to long-term sporting development, namely participant coaching rather than



experienced coaches leading well organised sessions of age-appropriate activities in a participant coaching environment.

Both the participant coaches and the performance coaches teach a number of the developmental age group sub-divisions. As they build their swimming club around helping teaching swimming at schools, children then get invited to join their swimming club for a more competitive environment and to excel further in the sport.

In conclusion performance coaches teach all developmental age groups either in a fun environment at school level or at club level to improve performance and excel in the sport. Participant coaches' main aim is to teach water safety and introduce children to swimming.

4.2.4 Coaching experience of swimming coaches

Data was gathered relating to all the coaches' years of experience, average months worked in a calendar year and average hours of coaching in a month. Experience is expressed as a performance criterion to assess coaches. An extensive literature search revealed a paucity of information regarding years of experience relating to actual time period spent coaching in a year; average months a year and average hours in a month. Actual time period of coaching should be taken into consideration when coach's years of experience are assessed.

The time period of mean years of experience for all coaches was six years (inter-quartile range: 2 to 15 years) (Table 4.10). Median months spent coaching was six months (October, November, December, January, February and March) inter-quartile range: 5-10 months. The median average hours spent coaching in a single month was 20.5 hours (inter-quartile range: 9 to 60 hours). There was one inactive coach at the time of the research who was not currently involved due to school work obligations, which explains the zero hours coaching.



Participant coaches mean years of experience was five years (inter-quartile range: 2 to 15 years), compared to performance coaches mean was seven years (inter-quartile range: 5 to 12.5 years) (Table 4.10). The results obtained with the Kruskal-Wallis test indicated a non significant ($p = 0.3073$) difference in the mean median scores of years of experience between participant and performance coaches.

Participant coaches median months spent coaching was six months (inter-quartile range: 5 to 7 months), compared to a performance coach's median of 10 months (inter-quartile range: 6 to 12 months) (Table 4.10). The results obtained with the Kruskal-Wallis test indicated that performance coaches average months of experience was significantly higher ($p = 0.0134$) than participant coaches.

Participant coaches' median average hours spent coaching in a single month was 16 hours (inter-quartile range: 6 to 30 hours), compared to performance coaches 50 hours (inter-quartile range: 38 to 100 hours) (Table 4.10). The Kruskal-Wallis test indicated on the five percent level a significant difference in the mean median scores between participant and performance coaches. Performance coaches average hours of experience was significantly higher ($p = 0.0010$) than participant coaches.



Table 4.10: Maximum and minimum time spent coaching

Experience	Duration	Total time spent coaching	Participant coaches	Performance coaches
≥ 1 Year	maximum	34	30	34
≤ 1 Year	minimum	0.75	0.75	1
Coaching activity				
\geq Average months a year	maximum	12	12	12
\leq Average months a year	minimum	3	3	5
\geq Average hours a month	maximum	200	96	200
\leq Average hours a month	minimum	0	0	18

Côte and Gilbert (2009:307) stated that in some cases authors define coaching expertise by effectiveness of athletes' level of achievement (win-loss percentage), or athletes' personal attributes (satisfaction, enjoyment), while others define coaching expertise by a coach's years of experience (10 years of experience). It seems then that a high percentage of the swimming coaches in the FSA Region were inexperienced because 10 years is considered an experienced coach by Côte and Gilbert (2009:307). It is worth mentioning that a participant coach will coach fewer hours than a performance coach on a monthly basis. Hours of coaching should be taken into consideration with regards to years of experience. No previous research could be found regarding hours coaching compared to years of experience.

The mean distribution of months spent coaching within participant and performance coaches is reflected in a bar figure below (Figure 4.4). Most participant swimming coaches' coached mainly during the summer months due to the extreme cold



conditions during winter and unheated outdoor pools. Therefore, swimming can be viewed by participant coaches as seasonal rather than periodical.

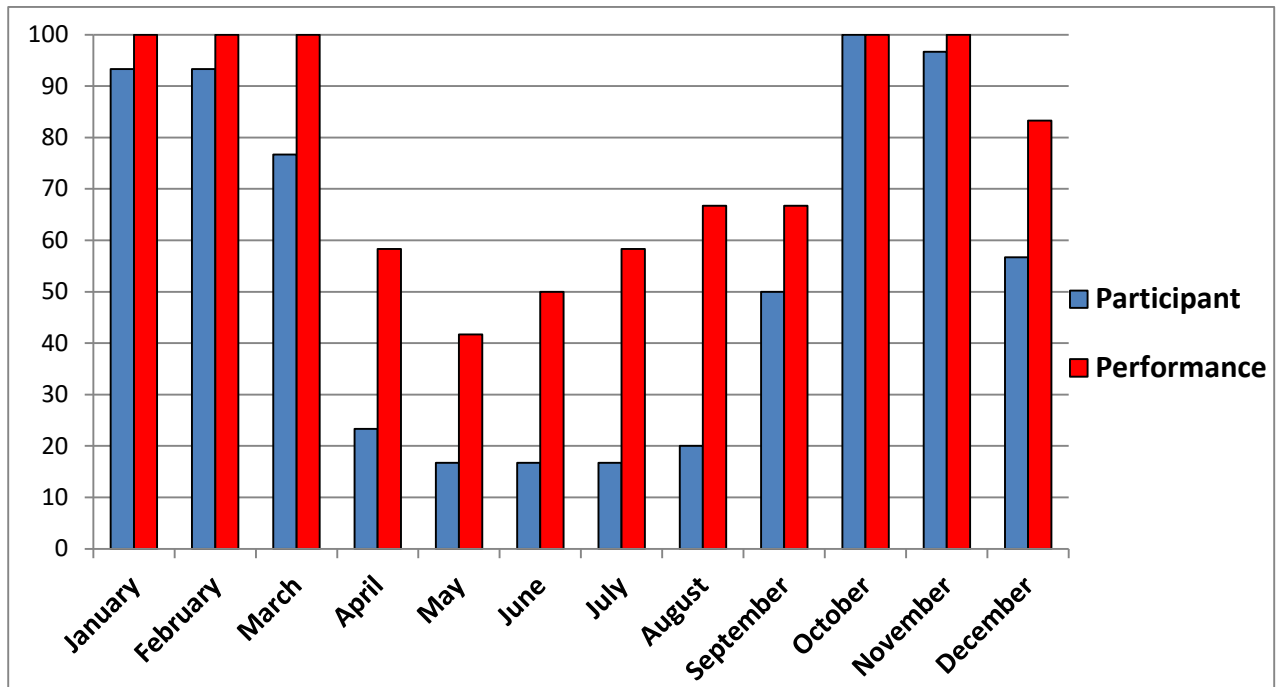


Figure 4.4: Comparison of median months spent coaching

Baechle and Earle (2008:382-411) stated that professional coaches (performance coaches) have to do a needs analysis of their sport to determine what the important variables are that need to be taken into account prior to establishing a periodisation model for each swimmer's goal for the season. In addition, participant coaches striving to become performance coaches need to understand that the goal of a performance coach is to improve the performance of swimmers and establish a competitive environment. Participant coaches need to spend more time (hours) coaching and continuously develop themselves as a coach by attending workshops, clinics and seminars. By being mentored by a performance coach, they can improve their coaching techniques etc., and thereby increase their years of experience to strive to become a performance coach.



4.3 Coaching development of swimming coaches

In South Africa it is compulsory for all swimming coaches according to SSA to be involved with the continuous development program. Coaches must obtain 30 continuous education curriculum (CEC) points every four years to be an accredited swimming coach and keep their qualification status. Various data was collected on the assessment of coaching development; direct performance criteria, knowledge development components, areas and / or sources of knowledge acquisition and the desired learning methods that coaches would prefer to make use of to improve their development as a coach (either participant or performance coach).

4.3.1 Performance criteria of coaching development

Data was gathered regarding the direct performance criteria's used to assess coaches' development (Table 4.11). All coaches consider personal attributes which swimmers gained e.g., personal satisfaction, enjoyment, self-esteem, competence etc., as the most important component in assessing coaches' performance (73.8%). Secondly, results achieved by swimmers in competitions (54.8%) and years of experience (33.8%) were seen as important components in assessing coaching performance levels.

Table 4.11: Assessment of performance criteria of all swimming coaches

Performance criteria:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Results of swimmers	2.4	2.4	21.4	54.8	19.0
Personal attributes gained by swimmers	0	7.1	2.4	16.7	73.8
Coaches years of experience	2.4	16.7	23.8	33.3	23.8



Participant coaches identified personal attributes which swimmers gain resembling personal satisfaction, enjoyment, self-esteem, competence etc. as the most important component in assessing coaches' performance (73.3%) (Table 4.12). This coincides with 75% of the performance coaches, who rated personal attributes gained by swimmers as the most important component. Secondly, participant coaches rated results achieved by swimmers in competitions (50%), while performance coaches rated results of swimmers (66.7%). This is because performance coaches are competitively driven and want to achieve the best results possible, where participant coaches' main goal is to achieve an element of fun, and enjoyment for their swimmers and teach water safety skills. Performance coaches valued years of experience as being more important (41.7%) compared to participant coaches (30.1%). Performance coaches maintain swimmers results come with years of experience as a coach, knowing what to do at the correct time periods in the periodisation cycle, is key to achieving results of swimmers.

The results obtained with the Fischer Exact test indicated a non significant ($p = 0.1075$) difference in the mean frequency scores between participant and performance coaches regarding performance criteria assessment. This was surprising as participant coaches athletes are not supposed to compete competitively. Their achievements are determined by the level of enjoyment gained at an end of a session rather than a race won. The results obtained with the Kruskal-Wallis test indicated on the five percent level a significant difference in the mean median scores between participant and performance coaches. Performance coaches rated the results of swimmers significantly higher ($p = 0.0139$) than participant coaches. There were also no significant differences between performance and participant coaches regarding personal attributes gained by swimmers ($p = 0.6418$) and years of experience ($p = 0.9316$).



Table 4.12: Assessment of swimming coaches performance criteria of participant and performance coaches

Performance criteria:	Not important		Slightly important		Average importance		Important		Very Important		<i>p</i> -values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact <i>p</i> -value	Kruskal-Wallis <i>p</i> -value
	%	%	%	%	%	%	%	%	%	%		
Results of swimmers	3.3	0	3.3	0	30	0	50	66.7	13.4	33.3	0.1075	0.0139
Personal attributes gained by swimmers	0	0	10	0	3.3	0	13.4	25	73.3	75	0.6418	0.7449
Coaches years of experience	3.3	0	20	8.3	23.2	25	30.1	41.7	23.3	25	0.9316	0.4277



Ford, Coughlan and Williams (2009:453) stated that coaching expertise is measured indirectly by status or years of experience. The problem with this argument is that it is difficult to remove social factors, contextual factors and biases as well. Coaching expertise is also affected by the fact that there appears to be numerous skills or components that contribute to performance coaching. Therefore, should results of swimmers directly influence the performance criteria by which all coaches are judged for improvement in coaching? The results in this study coincide with Ford *et al.* (2009:453) who expressed that years of experience coincides with results of swimmers.

If a participant coach aspires to become a performance coach, the following needs must be taken into consideration; improving level of qualification, gaining years of experience in coaching, developing personal attributes in athletes namely competence, connection and character in a competitive environment and improve performance results of swimmers.

4.3.2 Knowledge development of swimming coaches

Data was gathered regarding the assessment of various components of knowledge development and various sources and areas of acquiring knowledge as part of the assessment of coaching development. It is important for coaches to utilise knowledge development maximally to attain athlete's outcomes and reach expertise in coaching.

Components of knowledge development

Almost half (47.6%) of all coaches indicated that interpersonal knowledge (e.g. relationships with swimmers, the educational and local community) was very important (Table 4.13). Conversely, all coaches rated professional knowledge (47.6%) and intrapersonal knowledge e.g. reflections, dispositions and ethics (42.9%) as only important.



Table 4.13: Components of knowledge development of all swimming coaches

Knowledge component:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Professional knowledge	0	0	9.5	47.6	42.9
Interpersonal knowledge	0	0	16.7	35.7	47.6
Intrapersonal knowledge	0	9.5	14.3	42.9	33.3

These results support findings of Côte and Gilbert (2009:314) who suggested that coaches must have strong professional, intrapersonal and interpersonal knowledge. Coaches' knowledge produces effective athlete outcomes or characteristics of competence and confidence in swimmers.

Performance coaches rated professional knowledge (50%) and interpersonal knowledge (58.4%) as very important and indicated that intrapersonal knowledge (58.4%) was only important (Table 4.14). This differs from participant coaches who rated interpersonal (43.3%) and intrapersonal knowledge (36.7%) as very important and rated professional knowledge (50%) as important.



Table 4.14: Components of knowledge development of participant and performance coaches

Knowledge development component:	Not important		Slightly important		Average importance		Important		Very Important		<i>p</i> -values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact <i>p</i> -value	Kruskal-Wallis <i>p</i> -value
	%	%	%	%	%	%	%	%	%	%		
Professional knowledge	0	0	0	0	10	8.3	50	41.7	40	50	0.8799	0.5783
Interpersonal knowledge	0	0	0	0	20	8.3	36.7	33.3	43.3	58.4	0.7374	0.3095
Intrapersonal knowledge	0	0	13.3	0	13.3	16.7	36.7	58.4	36.7	25	0.5101	1.0000



Areas and sources of knowledge acquisition

The areas that coaches rated as very important in developing their knowledge component as part of coaching development, is injury prevention methods (71.4%), swimmers conditioning (69.1%), mental training and preparation of swimmer (57.1%), individual skills development of swimmer (52.4%) and recovery methods for swimmers (52.4%) (Table 4.15). In addition other sources that were viewed as important were knowledge gained from other coaches (61.9%), own experience (61.9%), training videos (54.8%) and clinics, seminars, workshops (52.4%).



Table 4.15: Areas and sources of knowledge acquisition

Areas and sources of knowledge acquisition:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Individual skills development of swimmer	0	0	9.5	38.1	52.4
Mental training and preparation of swimmer	0	0	4.8	38.1	57.1
Individual practice drills of swimmer	0	0	7.1	42.9	50
Fitness / conditioning of swimmers	0	0	9.5	21.4	69.1
Strength training for swimmers	0	0	23.8	42.9	33.3
Nutrition and wellness for swimmers	0	2.4	9.5	42.9	45.2
Injury prevention methods for swimmers	0	0	0	28.6	71.4
Recovery methods for swimmers	0	0	7.1	40.5	52.4
Knowledge from other coaches	0	0	14.	61.9	23.8
Own coaching experience and reflection	0	0	0	61.9	38.1
Clinics / seminars / workshops	0	4.7	14.3	52.4	28.6
Training videos	7.1	9.5	11.9	54.8	16.7
Watching elite competition live	7.1	9.5	23.8	42.9	16.7
Watching elite competition on TV	7.1	9.5	28.6	35.8	19
Books / magazines	2.4	21.4	23.8	47.6	4.8
On-line discussion groups (internet)	14.3	21.4	31	26.2	7.1
Swimming South Africa Association	4.8	14.3	21.4	38.1	21.4
Free State Aquatics Association	2.3	16.7	33.3	31	16.7
Sport & Recreation Association of South Africa	9.5	14.3	33.3	35.8	7.1
University of the Free State	2.4	21.4	23.8	47.6	4.8
Free State Sports Science Institute	2.4	21.4	11.9	50	14.3



According to Nelson, Cushion and Potrac (2006:252) and Sáiz, Calvo and Ibáñez Godoy (2009:21) knowledge construction in coaches is achieved through means such as:

1. Formal and non-formal education (specific courses, sports clinics, seminars).
2. Observing other expert coaches and information transfer amongst these.
3. Coaching experience itself with the consequent reflection.
4. Competition.
5. The existence of a mentor or some sort of structured mentoring program.

According to the results in this research study two areas of knowledge development were viewed as very important: mental training and preparation of swimmer (57.1%) and recovery methods of swimmers (52.4%). These results were supported by Williams and Kendall (2007:1580) who stated that mental preparation of athletes and development of recovery techniques are important to coaches.

Additionally, conditioning of swimmers (69.1%) was rated as a very important area of knowledge development which was consistent with findings by Reade, Rodgers and Hall (2008(a):324) who suggested that conditioning of athletes is very important. Reade *et al.* (2008(a):324) also maintained that consulting other coaches and attending clinics, seminars, and workshops were important knowledge development areas. These findings coincide with the results of this research, namely; knowledge from other coaches (61.9%) and clinics, seminars and workshops (52.4%).

Consulting high performance centers e.g., the Free State Sport Science Institute (FSSSI) (50%) and the University of the Free State (47.6%) were rated as more important sources of knowledge development than Swimming South Africa (38.1%) and Free State Aquatics Association (31%). The reason for this is possibly that FSSSI already worked closely with Free State Aquatics Association in a multi



professional setting. Most performance club's swimmers are tested and do conditioning at the FSSSI as part of a development and uplifting program.

The Fischer Exact test indicated a significant difference in the mean frequency scores between participant and performance coaches knowledge. Participant coaches knowledge acquisition via books and / or magazines was significantly higher ($p = 0.0100$) with Free State Aquatics Association also significantly higher ($p = 0.0176$) than performance coaches (Table 4.16). Similarly, the results obtained with the Kruskal-Wallis test indicated a significant difference in the mean median scores between participant and performance coaches. Performance coaches individual skills development of swimmers was significantly higher ($p = 0.0500$) than participant coaches (Table 4.16).



Table 4.16: Areas and sources of knowledge acquisition of participant and performance coaches

Areas and sources of knowledge acquisition:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Individual skills development of swimmer	0	0	0	0	13.4	0	43.3	25	43.3	75	0.1755	0.0500
Mental training and preparation of swimmer	0	0	0	0	6.7	0	43.3	25	50	75	0.3500	0.1249
Individual practise drills of swimmer	0	0	0	0	10	0	43.3	41.7	46.7	58.3	0.5838	0.3739
Fitness / conditioning of swimmers	0	0	0	0	13.4	0	23.3	16.7	63.3	83.3	0.4370	0.1706
Strength training for swimmers	0	0	0	0	26.7	16.6	43.3	41.7	30	41.7	0.7580	0.4036
Nutrition and wellness for swimmers	0	0	3.3	0	13.	0	46.7	33.3%	36.7	66.7	0.3235	0.0502
Injury prevention methods for swimmers	0	0	0	0	0	0	33.3	16.7	66.7	83.3	0.4534	0.2859
Recovery methods for swimmers	0	0	0	0	10	0	40	41.7	50	58.3	0.7646	0.4809
Knowledge from other coaches	0	0	0	0	16.67	8.3	56.7	75	26.7	16.7	0.6958	0.8975
Own coaching experience and reflection	0	0	0	0	0	0	60	66.7	40	33.3	0.7402	0.6913
Clinics / seminars / workshops	0	0	3.3	8.3	16.7	8.3	53.3	50	26.7	33.4	0.7680	0.7139
Training videos	10	0	10	8.3	6.7	25	56.6	50	16.7	16.7	0.5256	0.9878
Watching elite competition live	10	0	13.3	0	20	33.3	46.7	33.3	10	33.4	0.1983	0.1135
Watching elite competition on TV	10	0	13.3	0	23.3	41.7	36.7	33.3	16.7	25	0.5071	0.3390
Books / magazines	0	8.3	30	0	20	33.3	50	41.7	0	16.7	0.0100	0.2264



On-line discussion groups (internet)	13.3	16.7	26.7	8.3	26.7	41.6	30	16.7	3.3	16.7	0.3171	0.5657
Swimming South Africa Association	6.7	0	10	25	16.7	33.3	43.3	25	23.3	16.7	0.4050	0.2835
Free State Aquatics Association	3.3	0	16.7	16.7	23.3	58.3	43.3	0	13.3	8.3	0.0176	0.5147
Sport & Recreation Association of SA	10	8.3	13.3	16.7	26.7	50	43.3	16.7	6.7	8.3	0.4611	0.3744
University of the Free State	3.3	0	23.4	16.6	20	33.3	50	41.7	3.3	8.3	0.7489	0.7652
Free State Sports Science Institute	3.3	0	23.4	16.6	10	16.7	50	50	13.3	16.7	0.9407	0.6527

The results in this study (books / magazines and FSA) were consistent with findings of Reade, Rodgers and Spriggs (2008**(b)**:325) who found the limited time available to coaches affected their consultation of academic publications as they were not “user friendly”. This is especially applicable to performance coaches, whose median average hours spent coaching is 50 hours and median average months coaching is 10 months.

Time therefore impacts negatively on a coach’s acquisition of knowledge. This explains why performance coaches consult other coaches for information as they can gather it quickly and efficiently from trusted sources. However participant coaches consult books, magazines or their organisation for knowledge development. It is an easily accessible source and is an authenticated form of knowledge acquisition.



In this study there was a significant difference with regard to individual skills development. The results of this study support findings of Reade *et al.* (2008**(b)**:326) who found lower levels of coaches (participant coaches) as being “unsure” with regard to technical development compared to higher levels of coaches (performance coaches).

In conclusion, if a participant coach aspires to become a performance coach the following is important:

- The participant coach must improve an area of knowledge i.e., development of individual skills of swimmers.
- Acquiring sources of knowledge, using mentoring and improving internal learning methods of education.
- Further improvement of professional knowledge acquisition gained by attending workshops and clinics etc., through SSA’s continuous development program.
- In addition, the results of athletes, personal attributes gained by athletes and years of experience all play a vital role in the assessment of performance levels in the coach development process.

4.3.3 Learning methods in swimming coach development

The results indicate that all three methods of learning (mediated, unmediated and internal learning) were rated as important to all coaches but internal learning (61.9%) was viewed as the most important method (Table 4.17).



Table 4.17: Learning methods in swimming coach development

Learning methods:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Mediated learning	0	0	28.6	42.8	29.6
Unmediated learning	0	4.7	21.4	42.9	31
Internal learning	0	0	11.9	61.9	26.2

The results in this study were supported by the findings of Schempp, Tan and McCullick (2002:99) and Sáiz, *et al.* (2009:25) who highlighted the importance of this reflective experience (internal learning) that coaches valued as a desire for constant improvement and progression in coaching development. Erickson, Burner, Macdonald and Côte (2008:534) research also supported this result by stating that the best method of learning is “by doing” (reflection in and on these experiences).

Performance coaches rated internal learning at a higher percentage (75%) of importance than participant coaches (56.7%). The second most important method for performance coaches was unmediated learning (58.4%) compared to participant coaches (36.7%). Finally, performance coaches rated mediated learning (50%) as the least important learning method out of the three. Participant coaches however rated mediated learning (40%) as more important than unmediated learning (36.7%). The Kruskal-Wallis test indicated a non significant ($p = 1.0000$) difference in the mean median scores between participant and performance coaches regarding mediated learning methods.



Table 4.18: Learning methods in swimming coaching development of participant and performance coaches

Learning methods:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Mediated learning	0	0	0	0	30	25	40	50	30	25	0.8312	1.0000
Unmediated learning	0	0	3.3	8.3	26.7	8.3	36.7	58.4	33.3	25	0.3318	0.9527
Internal learning	0	0	0	0	16.7	0	56.7	75	26.6	25	0.4149	0.5289

These results (75% internal learning and 58.4% unmediated learning) by performance coaches confirm findings by Erickson, *et al.* (2008:536) that coaches who would like to coach at a higher competitive level had a preference for interacting with coaching peers (unmediated learning) and learning by doing (internal learning). This includes the importance of gaining direct experiences with swimmers (experiential learning) when improvement in coaching is required.



The results of participant coaches (56.7% internal learning and 40% mediated learning) were contradictory to findings of Erickson, Burner, Macdonald & Côte (2008:536) who suggested that participant coaches' learnt more through unmediated learning techniques than more formal (mediated) learning methods. Perhaps more mediated learning opportunities (workshops, clinics etc.) in the Free State Aquatics Region should be presented as transportation and accommodation costs must be taken into account when attending regular workshops presented in Gauteng, Kwazulu Natal or the Western Cape.

4.3.4 Multi disciplinary involvement in coaching development

According to Sands (1999 cited in Williams and Kendall, 2007:1577) a coach needs to solve a problem specific to an individual athlete, which might call for solutions that are multidisciplinary in nature. Data was gathered to determine the involvement of the multi disciplinary team in the improvement of coach performance, as part of the coaching process. The information provides valuable insight as to what coaches know about the multi disciplinary team and how their services can be incorporated into all coaching scientific principles.

Coaches considered the following professions as playing a vital part of the multi-professional team in improving swimming performance; physiotherapist (47.6%), personal trainer (45.3%) and a biokineticist (40.4%) (Table 4.19). The rest of the professions were viewed as average importance in daily day-to-day tasks of the swimmers, i.e.; the medical doctor (31%) and the orthopedic surgeon (31%). Nevertheless, they play a vital role in the multi professional team geared towards keeping the swimmers healthy and alleviating any injuries or discomfort caused by their sport. Coaches might feel that doctors were not important in the swimmers day-to-day activities compared to a physiotherapist or personal trainer because a swimmer only visits a doctor if they were ill or injured.



Table 4.19: Multi disciplinary involvement in swimming coaching development

Professional:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Medical doctor	16.7	16.7	31	28.6	7.1
Orthopedic surgeon	16.7	16.7	31	28.6	7.1
Physiotherapist	4.8	7.1	14.3	47.6	26.2
Biokineticist	11.9	0	16.7	40.4	31
Sport Scientist	4.8	11.9	9.5	35.7	38.
Personal Trainer	7.1	14.3	21.4	45.3	11.9
Dietician	7.1	14.3	19.1	35.7	23.8
Sport Psychologist	4.8	14.3	21.4	35.7	23.8

The median for both participant coaches and performance coaches was of average importance for a medical doctor or orthopedic surgeon (inter-quartile range: lower quartile slightly important to upper quartile important) (Table 4.20). Performance coaches mean for sport scientists was recorded as very important (inter-quartile range: lower quartile average importance to upper quartile very important). The results obtained with the Fischer Exact test indicated that performance coaches rated a sport psychologist significantly higher ($p = 0.0423$) than participant coaches. The results obtained with the Kruskal-Wallis test also indicated that performance coaches rated a physiotherapist significantly higher ($p = 0.0208$) than participant coaches. The implications thereof are that the services of the multi professional team (sport doctors, physiotherapists, sport scientists and biokineticists) should be marketed to coaches. Coaches should be informed of how these professionals provide valuable help with regard to enhancing sport performance, conditioning or rehabilitation of swimmers.



Table 4.20: Multi disciplinary involvement in coaching development of participant and performance coaches

Professional:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Medical doctor	20	8.3	20	8.3	26.7	41.7	26.7	41.7	6.7	8.3	0.7274	0.2875
Orthopedic surgeon	20	8.3	20	8.3	30	33.3	26.7	33.3	3.3	16.8	0.5195	0.1013
Physiotherapist	6.7	0	10	0	20	0	43.3	58.3	20	41.7	0.2155	0.0208
Biokineticist	16.6	0	0	0	20	8.3	36.7	50	26.7	41.7	0.3657	0.0908
Sport Scientist	6.7	0	10	16.7	10	8.3	43.3	16.7	30	58.3	0.3196	0.2281
Personal Trainer	6.7	8.3	20	0	16.7	33.3	46.7	41.7	10	16.7	0.3827	0.5557
Dietician	10	0	13.3	16.7	23.3	8.3	36.7	33.3	16.7	41.7	0.4089	0.1062
Sport Psychologist	6.7	0	10	25	26.7	8.3	43.3	16.7	13.3	50	0.0423	0.1791



In summary, all coaches found certain areas and sources of knowledge development, and the way in which this knowledge is taught (professional, intrapersonal, interpersonal knowledge) more important than others. This is also true of the method of learning that they prefer for acquiring knowledge whether it's internal, mediated or unmediated learning. In addition the results of athletes, personal attributes gained by athletes, and coaches' years of experience, as well as the various professions related to the development of the coaches' knowledge base and subsequent improvement of performance all play a vital role in the assessment of performance levels in the coach development process.

4.4 Characteristics, strategies and roles of an ideal coach

Data was gathered to determine the preferred ideal characteristics, strategies and roles of coaches that can be utilised in the improvement of coach performance and as part of the developmental process of coaching.

4.4.1 Ideal coaching characteristics

The majority of coaches noted five dominant characteristics as very important; trustworthiness (83.3%), passion and enthusiasm (81%), love of the sport (78.6%), confidence (78.6%) and discipline (76.2%) (Table 4.21).



Table 4.21: Ideal coach characteristics

Characteristic:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Knowledge	0	0	0	40.5	59.5
Innovative and creative	0	0	2.4	35.7	61.9
Passion and enthusiasm	0	0	0	19	81
Inspirational	0	0	7.1	23.8	69.1
Love of the sport	0	0	0	21.4	78.6
Accept mistakes and imperfections	0	0	4.8	40.5	54.7
Controlled emotion (patient)	0	0	2.4	28.6	69
Dedicated hard worker	0	0	0	28.6	71.4
Disciplined	0	0	0	23.8	76.2
Competitive	0	0	21.4	57.2	21.4
Consistent and organised	0	0	4.8	21.4	73.8
Professional	0	0	2.4	26.2	71.4
Confident	0	0	2.4	19	78.6
Trustworthy	0	0	2.4	14.3	83.3

Côte and Gilbert (2009:312) argued that competence, confidence, connection and character are important characteristics portrayed by athletes as a result of coach influence in enhancing sport performance.

The results obtained with the Fischer Exact test indicated a non significant difference ($p = 1.0000$) between performance and participant coaches regarding professionalism and discipline. These characteristics were very important to both types of coaches.



Table 4.22: Comparison of ideal coach characteristics

Characteristic:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Knowledge	0	0	0	0	0	0	43.3	33.3	56.7	66.7	0.7310	0.5556
Innovative and creative	0	0	0	0	3.3	0	33.3	41.7	63.4	58.3	0.8072	0.8308
Passion and enthusiasm	0	0	0	0	0	0	23.3	8.3	76.7	91.7	0.4024	0.2692
Inspirational	0	0	0	0	6.6	8.3	26.7	16.7	66.7	75	0.8603	0.6553
Love of the sport	0	0	0	0	0	0	26.7	8.3	73.3	91.7	0.2475	0.1962
Accept mistakes and imperfections	0	0	0	0	0	16.7	40	41.7	60	41.7	0.0883	0.1533
Controlled emotion (patient)	0	0	0	0	0	8.3	36.7	8.3	63.3	83.3	0.0510	0.2914
Dedicated hard worker	0	0	0	0	0	0	26.7	33.3	73.3	66.7	0.7154	0.6695
Disciplined	0	0	0	0	0	0	23.3	25	76.7	75	1.0000	0.9099
Competitive	0	0	0	0	16.7	33.3	60	50	23.3	16.7	0.6386	0.3025
Consistent and organised	0	0	0	0	3.3	8.3	23.3	16.7	73.4	75	0.7025	0.9855
Professional	0	0	0	0	3.3	0	26.7	25	70	75	1.0000	0.7100
Confident	0	0	0	0	0	8.3	23.3	8.3	76.7	83.3	0.1744	0.7399
Trustworthy	0	0	0	0	0	8.3	16.7	8.3	83.3	83.3	0.3969	0.9143



In addition, two other dominant characteristic differences were identified by performance coaches; passion and enthusiasm (91.7%) and love for the sport (91.7%) (Table 4.22). This is contradictory to the main goal of participant coaches who instill an element of fun in swimmers so that they gain passion and enthusiasm and ideally love for the sport so that they continue with swimming. All other characteristics were viewed as very important ideal characteristics for a performance coach.

4.4.2 Ideal coaching strategies

The majority of coaches reflected six dominant ideal strategies as very important (Table 4.23). These strategies were; to motivate and build self-esteem in swimmers (85.7%), build self-confidence of swimmers (83.3%), help swimmers to maintain confidence in themselves (83.3%), promote good sportsmanship and moral character among swimmers' (76.2%), develop swimmers' abilities or potential (76.2%) and emotional control as a coach (76.2%).



Table 4.23: Ideal coach strategies of all coaches

Strategy:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Maximise swimmers' strengths	0	0	0	40.5	59.5
Critical decision making	0	0	11.9	52.4	35.7
Integrate your personal and professional life	4.8	4.8	23.8	38.1	28.5
Demonstrate or teach the skills of his/her sport	0	2.4	7.1	47.6	42.9
Develop swimmers' abilities (stroke, potential, skill, etc.)	0	0	0	23.8	76.2
Promote good sportsmanship and moral character	0	0	0	23.8	76.2
Instill an attitude of respect for others	0	0	2.4	23.8	73.8
Help swimmers to maintain confidence in themselves	0	0	2.4	14.3	83.3
Motivate and build self-esteem in swimmers	0	0	0	14.3	85.7
Build self-confidence of swimmers	0	0	0	16.7	83.3
Manage skills as a coach	0	0	4.8	26.2	69
Emotional control as a coach	0	0	4.8	19	76.2



These results coincide with the arguments of Côte and Gilbert (2009:312) which studied the influence of coaching characteristics and strategies on athlete performance. These coaching strategies are all related to a swimmer's performance and used in combination with coach characteristics and roles in the coaching process to achieve improvement of performance or increase participation levels.

Performance coaches noted four dominant ideal strategies as very important. They were; developing swimmers' abilities (stroke, potential, skill, etc.) (91.7%), help swimmers to maintain confidence in themselves (91.7%), motivate and build self-esteem in swimmers (91.7%) and emotional control as a coach (91.7%) (Table 4.24). While participant coaches rated three dominant ideal strategies as very important, namely; motivate and build self-esteem in swimmers (83.3%), build self-confidence of swimmers (83.3%) and help swimmers to maintain confidence in themselves (80%). The results obtained with the Kruskal-Wallis test indicated that participant coaches rated ideal strategy of integrating personal and professional life significantly higher ($p = 0.0130$) than performance coaches. Performance coaches don't want to get emotionally involved by portraying a role of a friend to swimmers and don't utilise a strategy of integrating personal and professional life. Performance coaches prefer to represent an instructor figure to swimmers as opposed to participant coaches. The implication was that performance coaches were more autocratic and distance themselves from swimmers. This may be due to rigid training programs, strict coaching rules and regulations used to achieve maximum performance results of swimmers. Two ideal strategies that were very important for both types of coaches was building self-confidence in swimmers and promoting good sportsmanship and moral character.



Table 4.24: Comparison of ideal coach strategies

Strategy:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Maximise swimmers' strengths	0	0	0	0	0	0	33.3	58.3	66.7	41.7	0.1744	0.1407
Critical decision making	0	0	0	0	13.3	8.3	46.7	66.7	40	25	0.5596	0.5775
Integrate your personal and professional life	3.3	8.3	0	16.8	20	33.3	40	33.3	36.7	8.3	0.0625	0.0130
Demonstrate or teach the skills of his/her sport	0	0	0	8.3	6.7	8.3	53.3	33.4	40	50	0.3007	0.8773
Develop swimmers' abilities (stroke, potential, skill, etc.)	0	0	0	0	0	0	30	8.3	70	91.7	0.2333	0.1412
Promote good sportsmanship and moral character	0	0	0	0	0	0	23.3	25	76.7	75	1.0000	0.9099
Instill an attitude of respect for others	0	0	0	0	0	8.3	23.3	25%	76.7	66.7	0.4509	0.4337
Help swimmers to maintain confidence in themselves	0	0	0	0	0	8.3	20	0	80	91.7	0.0835	0.4386
Motivate and build self-esteem in swimmers	0	0	0	0	0	0	16.7	8.3	83.3	91.7	0.6552	0.4909
Build self-confidence of swimmers	0	0	0	0	0	0	16.7	16.7	83.3	83.3	1.0000	1.0000
Manage skills as a coach	0	0	0	0	3.3	8.3	33.3	8.3	63.3	83.3	0.2368	0.2778
Emotional control as a coach	0	0	0	0%	3.3	8.3	26.7	0	70	91.7	0.1235	0.1893



4.4.3 Ideal roles as a coach

The majority of coaches indicated that there were three very important roles that they must perform to their swimmers' as part of their interpersonal relationship. They were a motivator (69%), a teacher or instructor figure (61.9%) and in 50% of the cases an expert coach (Table 4.25).

Table 4.25: Ideal roles of all coaches

Role:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Teacher or instructor	0	0	2.4	35.7	61.9
Parental figure	0	2.4	23.8	35.7	38.1
Mentor	2.4	0	11.9	50	35.7
Friend	7.1	9.5	26.2	42.9	14.3
Leader	2.4	2.4	4.8	45.2	45.2
Expert	2.4	2.4	7.1	38.1	50
Motivator	2.4	2.4	0	26.2	69

France (2009:123) supported these findings by stating the following: "The role of the coach is to create the right conditions for learning and to find ways of motivating the athletes. Most athletes are highly motivated and therefore the task is to maintain the motivation and to generate excitement and enthusiasm".

Furthermore, Ford *et al.* (2009:455) stated that coaches' skills and competencies have traditionally been conceptualised as multiple "roles of a coach", such as a mentor, teacher, friend, leader or motivator. This coincides with the multiple roles found in this research; those of motivator (69%), teacher (61.9%), leader (45.2%), mentor (35.7%) and friend (14.3%).



In addition Pyke (2001:4) defined the key roles of a coach as, on-field and off-field coaching roles. On-field roles of a coach are seen as being a risk manager and improving the athlete. The coach as a whole was seen as a teacher or communicator. An example of the off-field roles of a coach were mentoring, self-reflection and innovations.

In brief, coaches have various ideal characteristics (Table 4.21), strategies (Table 4.23) and multiple roles (Table 4.25) that they have to fulfil in order to develop or improve a swimmer, be it for participation or performance coaching purposes.

Performance coaches reflected one particularly important ideal role, that of a teacher or instructor figure (75%), while participant coaches indicated that a role as a motivator (70%) was very important (Table 4.26). The results obtained with the Fischer Exact test indicated that participant coaches rated the role as a friend as significantly higher ($p = 0.0437$) than performance coaches. Performance coaches were viewed as an instructor figure, more task orientated compared to participant coaches who viewed their role as a friend to all swimmers.



Table 4.26: Comparison of ideal roles of swimming coaches

Role:	Not important		Slightly important		Average importance		Important		Very Important		<i>p</i> - values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact <i>p</i> - value	Kruskal-Wallis <i>p</i> - value
	%	%	%	%	%	%	%	%	%	%		
Teacher or instructor	0	0	0	0	3.3	0	40	25	56.7	75	0.6285	0.2568
Parental figure	0	0	3.3	0	20	33.3	36.7	33.3	40	33.4	0.8226	0.5945
Mentor	3.3	0	0	0	3.3	33.3	56.7	33.3	36.7	33.4	0.0526	0.2983
Friend	6.7	8.3	6.7	16.7	36.7	0	33.3	66.7	16.7	8.3	0.0437	0.6704
Leader	3.3	0	0	8.3	3.3	8.3	50	33.4	43.4	50	0.4267	0.9631
Expert	3.3	0	0	8.3	10	0	40	33.3	46.7	58.3	0.4678	0.4987
Motivator	3.3	0	0	8.3	0	0	26.7	25	70	66.7	0.5576	0.7829



These results were consistent with Nash *et al.* (2008:546) that stated performance coaches acknowledged their roles change profoundly throughout their careers and were still evolving every day. Participant coaches viewed their main role as a motivator to instill fun and enjoyment in coaching and the main role of performance coach is to improve performance of swimmers through instruction.

Thus, if a participant coach aspires to become a performance coach they should develop a love for the sport combined with passion and enthusiasm. Further strategies that are ideal are to develop the swimmers' abilities and help build and maintain self confidence in the swimmer. An ideal performance coach must fulfill a teacher or instructor role to help swimmers' develop their abilities and improve their performance.

4.5. Characteristics, strategies and roles coaches utilise

4.5.1 Characteristics that a coach utilises

The majority of coaches noted five dominant characteristics used by most coaches as part of their coaching process namely; passion and enthusiasm (73.8%), trustworthiness (71.4%), disciplined (69.1%), controlled emotion (patience) (66.7%) and confidence (66.6%) (Table 4.27).



Table 4.27: Coach characteristics utilised

Characteristic:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Knowledge	0	0	14.3	31	54.7
Innovative and creative	0	2.4	4.8	38.1	54.7
Passion and enthusiasm	0	0	0	26.2	73.8
Inspirational	2.4	0	0	38.1	59.5
Love of the sport	0	0	2.4	35.7	61.9
Accept mistakes and imperfections	0%	0	9.5	31	59.5
Controlled emotion (patient)	0	0	4.8	28.5	66.7
Dedicated hard worker	0	0	0	40.5	59.5
Disciplined	0	0	2.4	28.5	69.1
Competitive	0	11.9	33.3	28.6	26.2
Consistent and organized	0	0	7.1	35.7	57.2
Professional	0	2.4	2.4	40.5	54.7
Confident	0	0	2.4	31	66.6
Trustworthy	0	0	4.8	23.8	71.4

Therefore what coaches utilise in practice and think is ideal are very similar. The similarity between current practice and the ideal coach scenario is obvious as indicated in Table 4.28.



Table 4.28: Frequencies of very important ideal characteristics versus current coaching characteristics

Characteristics:	Ideal coaching	Current coaching
	%	%
Trustworthy	83.3	71.4
Passion and enthusiasm	81	73.8
Confident	78.6	66.6
Love of the sport	78.6	61.9
Disciplined	76.2	69.1
Controlled emotion (patience)	69	66.7

All six dominant characteristics were used by most coaches as part of their coaching process whether its participant or performance orientated.

According to participant coaches, accepting mistakes and imperfections (70%) and passion and enthusiasm (66.7%) were the most important characteristics utilised. Performance coaches rated passion and enthusiasm (91.7%) as the most important characteristic. Controlled emotion (83.4%) and knowledge (83.3%) were also highly rated characteristics by performance coaches (Table 4.29). Results obtained with the Fischer Exact test noted that participant coaches rated accepting mistakes and imperfections significantly higher ($p = 0.0037$) than performance coaches. The remaining characteristics did not significantly change, especially two characteristics namely; inspirational ($p = 1.000$) and dedicated hard worker ($p = 1.000$). Similarly, the results of the Kruskal-Wallis test indicated that performance coaches utilised knowledge significantly higher ($p = 0.0154$) than participant coaches. Participant coaches also identified accepting mistakes and imperfections significantly higher ($p = 0.0073$) than performance coaches.

It appears that what participant coaches saw as ideal and what they utilise in current practise were different. Participant coaches saw competitiveness as being ideal yet



what is utilised in practise was more passion and enthusiasm which is their main goal as a participant coach. Performance coaches however, rate passion and enthusiasm, controlled emotion and knowledge as important characteristics which they utilise in practise. This coincides with what they see as ideal characteristics of a performance coach.



Table 4.29: Comparison of ideal coach characteristics

Characteristic:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Knowledge	0	0	0	0	20	0	36.7	16.7	43.3	83.3	0.0537	0.0154
Innovative and creative	0	0	3.3	0	3.3	8.3	43.4	25	50	66.7	0.5889	0.3949
Passion and enthusiasm	0	0	0	0	0	0	33.3	8.3	66.7	91.7	0.1333	0.1000
Inspirational	3.3	0	0	0	0	0	36.7	41.7	60	58.3	1.0000	0.9870
Love of the sport	0	0	0	0	3.3	0	40	25	56.7	75	0.6285	0.2568
Accept mistakes and imperfections	0	0	0	0	0	33.3	30	33.3	70	33.4	0.0037	0.0073
Controlled emotion (patient)	0	0	0	0	3.3	8.3	36.7	8.3	60	83.4	0.1628	0.2118
Dedicated hard worker	0	0	0	0	0	0	40	41.7	60	58.3	1.0000	0.9218
Disciplined	0	0	0	0	3.3	0	33.3	16.7	63.4	83.3	0.6086	0.2006
Competitive	0	0	16.7	0	33.3	33.3	26.7	33.3	23.3	33.4	0.5821	0.2229
Consistent and organized	0	0	0	0	3.3	16.6	43.3	16.7	53.4	66.7	0.1250	0.7030
Professional	0	0	3.3	0	3.3	0	46.7	25	46.7	75	0.3666	0.0866
Confident	0	0	0	0	3.3	0	36.7	16.7	60	83.3	0.4826	0.1449
Trustworthy	0	0	0	0	0	16.7	30	8.3	70	75	0.0674	1.000



4.5.2 Coaching strategies utilised

Coaches suggested that there were three dominant strategies that they utilise as part of their coaching process, namely; build self confidence of swimmers (76.2%), help swimmers to maintain self-confidence in themselves (76.2%) and motivating and building self-esteem in swimmers (73.8%) (Table 4.30).



Table 4.30: Coaching strategies utilised

Strategy:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Maximise swimmers' strengths	0	2.4	7.1	40.5	50
Critical decision making	2.4	2.4	21.4	40.5	33.3
Integrate your personal and professional life	7.1	2.4	26.2	38.1	26.2
Demonstrate or teach the skills of his/her sport	0	4.8	2.4	47.6	45.2
Develop swimmers' abilities (stroke, potential, skill, etc.)	0	0	2.4	31	66.6
Promote good sportsmanship and moral character	0	0	2.4	31	66.6
Instill an attitude of respect for others	0	0	2.4	28.6	69
Help swimmers to maintain confidence in themselves	0	0	2.4	21.4	76.2
Motivate and build self-esteem in swimmers	0	0	2.4	23.8	73.8
Build self-confidence of swimmers	0	0	2.4	21.4	76.2
Manage skills as a coach	0	2.4	9.5	23.8	64.3
Emotional control as a coach	0	2.4	7.1	28.6	61.9



These results coincide with the arguments of Côte and Gilbert (2009:312) that studied the influence of coaching characteristics on athlete performance. These coaching strategies are all related to the athlete's performance which a coach uses in the coaching process to achieve the goal of athlete development whether its performance or participation

Therefore, what coaches utilise in practice and think is ideal were very similarly as was found in the results. Table 4.31 indicates the dominant six ideal versus current very important strategies.

Table 4.31: Frequencies of very important ideal strategies versus current coaching strategies

Strategies:	Ideal coaching	Current coaching
	%	%
Motivate and build self-esteem in swimmers	85.7	73.8
Help swimmers to maintain confidence in themselves	83.3	76.2
Build self-confidence of swimmers	83.3	76.2
Develop swimmers' abilities (stroke, potential, skill, etc.)	76.2	66.6
Promote good sportsmanship and moral character	76.2	66.6
Emotional control as a coach	76.2	61.9

All six dominant characteristics were currently incorporated by most coaches as part of their coaching process whether its participant or performance orientated.

The Fischer Exact test found significant difference between participant and performance coaches regarding demonstrating or teaching the skills of his / her sport ($p = 0.0175$) and helping swimmers to maintain self confidence ($p = 0.0312$). Performance coaches utilised these strategies significantly higher than participant coaches (Table 4.32). The remaining strategies between the two types of coaches



did not differ significantly, especially with regard to two characteristics namely; inspirational ($p = 1.000$) and dedicated hard worker ($p = 1.000$). The results obtained with the Kruskal-Wallis test indicated that participant coaches utilised a strategy of integrating personal and professional life significantly more ($p = 0.0136$) than performance coaches.



Table 4.32: Comparison of ideal coach strategies

Strategy:	Not important		Slightly important		Average importance		Important		Very Important		p- values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact p- value	Kruskal-Wallis p- value
	%	%	%	%	%	%	%	%	%	%		
Maximise swimmers' strengths	0	0	3.3	0	10	0	43.3	33.3	43.4	66.7	0.6397	0.1216
Critical decision making	3.3	0	3.3	0	26.7	8.3	33.3	58.3	33.4	33.4	0.5718	0.3595
Integrate your personal and professional life	6.7	8.3	0	8.3	16.7	50	43.3	25	33.3	8.4	0.0582	0.0136
Demonstrate or teach the skills of his/her sport	0	0	3.3	8.3	0	8.3	60	16.7	36.7	66.7	0.0175	0.2430
Develop swimmers' abilities (stroke, potential, skill, etc.)	0	0	0	0	3.3	0	36.7	16.7	60	83.3	0.4826	0.1449
Promote good sportsmanship and moral character	0	0	0	0	3.3	0	33.3	25	63.4	75	0.7990	0.4456
Instill an attitude of respect for others	0	0	0	0	0	8.3	36.7	8.3	63.3	83.4	0.0510	0.2914
Help swimmers to maintain confidence in themselves	0	0	0	0	0	8.3	30	0	70	91.7	0.0312	0.1945
Motivate and build self-esteem in swimmers	0	0	0	0	0	8.3	26.7	16.7	73.3	75	0.3653	0.9710
Build self-confidence of swimmers	0	0	0	0	0	8.3	26.7	8.3	73.3	83.4	0.1808	0.5986
Manage skills as a coach	0	0	3.3	0	10	8.3	30	8.3	56.7	83.4	0.4121	0.1313
Emotional control as a coach	0	0	3.3	0	3.3	16.7	36.7	8.3	56.7	75	0.1033	0.4317



These results support findings by Beyer, Flores and Vargas-Tonsing (2008:555) stating that participant coaches' children are given the opportunity to increase their self-esteem, self efficacy, peer acceptance and social skills. Participation also leads to increased well-being and achievement in daily life outside the sports arena. Furthermore, performance coaches' motivational attitude towards their children may be reflective of their perceptions of self-efficacy.

4.5.3 Roles that a coach utilises

The majority of coaches say that there were two important roles that coaches should fulfill i.e., motivator (64.3%) and teacher or instructor figure (59.5%) (Table 4.33).

Table 4.33: Roles that a coach utilises

Role:	Not important	Slightly important	Average importance	Important	Very Important
	%	%	%	%	%
Teacher or instructor	0	0	7.1	33.3	59.5
Parental figure	0	7.1	31	38.1	23.8
Mentor	2.4	4.8	9.5	52.3	31
Friend	4.8	26.2	14.3	40.4	14.3
Leader	2.4	2.4	9.5	47.6	38.1
Expert	2.4	2.4	11.9	42.8	40.5
Motivator	2.4	2.4	0	31	64.3

As indicated by various researchers (France, 2009:123; Ford *et al.*, 2009:455 and Pyke, 2001:4) there were multiple roles that coaches utilise in their coaching practise whether it's for performance or participant coaching. What coaches utilize in practice and think is ideal were very similar. Table 4.34 indicates the dominant six ideal versus current very important roles that must be employed by coaches for performance or participation.



Table 4.34: Ideal roles versus current coaching roles

Roles:	Ideal coaching	Current coaching
	%	%
Motivator	69	64.3
Teacher or instructor figure	61.9	59.5
Expert	50	40.5

All three dominant ideal roles were employed by most coaches as part of their coaching process whether its participant or performance orientated.

Participant coaches view the role of a teacher or instructor (56.7%) or a motivator (56.7%) as being the most important, while performance coaches rated the role as a motivator (83.4%) as the most important aspect (Table 4.35). Performance coaches motivate swimmers to continuously excel in performance during a competitive setting while participant coaches motivate swimmers to learn to swim and enjoy the element of fun and become water safe.

The Fischer Exact test indicated that performance coaches currently utilised a role as an expert significantly higher ($p = 0.0078$) than participant coaches (Table 4.35). Similarly, the results obtained with the Kruskal-Wallis test indicated performance coaches rated the role of an expert significantly higher ($p = 0.0124$) than participant coaches.



Table 4.35: Comparison of roles that a coach utilises

Role:	Not important		Slightly important		Average importance		Important		Very Important		<i>p</i> - values	
	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Participant	Performance	Fischer Exact <i>p</i> - value	Kruskal-Wallis <i>p</i> - value
	%	%	%	%	%	%	%	%	%	%		
Teacher or instructor	0	0	0	0	6.6	8.3	36.7	25	56.7	66.7	0.8695	0.6188
Parental figure	0	0	10	0	26.7	41.7	40	33.3	23.3	25	0.7587	0.9416
Mentor	3.3	0	0	16.7	6.7	16.7	60	33.3	30	33.3	0.0931	0.4622
Friend	6.7	0	23.3	33.3	20	0	36.7	50	13.3	16.7	0.4834	0.5400
Leader	3.3	0	0	8.3	3.3	25	53.4	33.3	40	33.4	0.0676	0.2411
Expert	3.3	0	0	8.3	16.7	0	53.3	16.7	26.7	75	0.0078	0.0124
Motivator	3.3	0	0	8.3	0	0	40	8.3	56.7	83.4	0.0511	0.1539



Logical reasons can be given from the literature for this phenomenon. Côte, Salmela, Trudel, Baria and Russel (1995:10) stated that coaching expertise is defined by the coaching model which describes a coach's work from a coaching perspective. A performance coach is rated by how they apply this model and expertise to the periodisation of each swimmer to improve performance and attain swimmer achievements. Participant coaches do not need to be expert coaches (high qualifications and experience) to fulfill their tasks effectively.

In conclusion, both the performance and participant coach should utilise the information regarding the different characteristics, strategies and roles of an ideal coach as part of their developmental framework together with their continuous education structure and increasing knowledge base. Coaches can therefore utilise this information to enhance performance and participation levels of the swimmers they coach.

4.6 Ideal versus current practice amongst swimming coaches

The results obtained with the Signed Ranked Test indicated two distinctive non significant ($p = \geq 0.05$) differences in the mean median scores between ideal and current practice of coaches (Table 4.36). How coaches accept mistakes and imperfections of themselves ($p = 1.0000$) and how coaches demonstrate or teach the skills of his/her sport ($p = 1.0000$), were important current and ideal practices. The results obtained with the Signed Ranked Test indicated significant differences in the mean median scores between ideal and current practice of coaches. The role as a parental figure ($p = 0.0436$), love for the sport ($p = 0.0352$) and a professional person ($p = 0.0332$) were significantly higher in ideal practice than in current practice.



Table 4.36: Ideal characteristics, strategies and roles versus current characteristics, strategies and roles

Variable	Lower quartile	Median	Upper quartile	Minimum	Maximum	Median p-value
Knowledge	0.000	0.000	0.000	-1.000	2.000	0.0557
Innovative and creative	0.000	0.000	0.000	-1.000	2.000	0.2407
Passion and enthusiasm	0.000	0.000	0.000	-1.000	1.000	0.3750
Inspirational	0.000	0.000	0.000	-1.000	3.000	0.5898
Love of the sport	0.000	0.000	0.000	-1.000	2.000	0.0352
Accept mistakes & imperfections	0.000	0.000	0.000	-1.000	2.000	1.0000
Controlled emotion (patient)	0.000	0.000	0.000	-1.000	1.000	0.7744
Dedicated hard worker	0.000	0.000	0.000	-1.000	1.000	0.2266
Disciplined	0.000	0.000	0.000	-1.000	2.000	0.4316
Competitive	0.000	0.000	1.000	-1.000	2.000	0.0116
Consistent and organized	0.000	0.000	1.000	-2.000	1.000	0.1157
Professional	0.000	0.000	0.000	-1.000	2.000	0.0332
Confident	0.000	0.000	0.000	-1.000	1.000	0.1797
Trustworthy	0.000	0.000	0.000	-1.000	1.000	0.1094
Maximize swimmers' strengths	0.000	0.000	0.000	-1.000	2.000	0.0730
Critical decision making	0.000	0.000	0.000	-1.000	3.000	0.0691
Integrate your personal and professional life	0.000	0.000	0.000	-1.000	2.000	0.6311
Demonstrate or teach the skills of his/her sport	0.000	0.000	0.000	-1.000	2.000	1.0000
Develop swimmers' abilities (stroke, potential, skill, etc.)	0.000	0.000	0.000	-1.000	2.000	0.3071



Promote good sportsmanship and moral character	0.000	0.000	0.000	-1.000	2.000	0.2734
Instill an attitude of respect for others	0.000	0.000	0.000	-1.000	1.000	0.7266
Help swimmers to maintain confidence in themselves	0.000	0.000	0.000	-1.000	1.000	0.5078
Motivate and build self-esteem in swimmers	0.000	0.000	0.000	-1.000	1.000	0.1460
Build self-confidence of swimmers	0.000	0.000	0.000	-1.000	1.000	0.3438
Manage your skills as a coach	0.000	0.000	0.000	-1.000	2.000	0.1826
Emotional control as a coach	0.000	0.000	0.000	-1.000	2.000	0.0571
Teacher or instructor	0.000	0.000	0.000	-2.000	2.000	0.6401
Parental figure	0.000	0.000	1.000	-2.000	3.000	0.0436
Mentor	0.000	0.000	0.000	-2.000	2.000	0.4460
Friend	0.000	0.000	0.000	-1.000	2.000	0.2130
Leader	0.000	0.000	0.000	-1.000	2.000	0.3071
Expert	0.000	0.000	0.000	-1.000	2.000	0.2131
Motivator	0.000	0.000	0.000	-1.000	1.000	0.7539



In conclusion, both the performance and participant coach should utilise this valuable information regarding the different characteristics, strategies and roles of an ideal coach as part of their coaching development together with their continuous education programme. Utilising these valuable services and knowledge of the multi professional team will lead to the improvement of swimmers performance and development of themselves as a coach. This insight will improve the coaching methods of individual swimmers and therefore increase performance levels or motivate swimmers to continue with swimming as a sport.



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CONCLUSIONS & RECOMMENDATIONS

- 5.1 Summary**
 - 5.2 Conclusions and recommendations**
 - 5.3 Summary of developmental needs of participant and performance coaches**
 - 5.4 Further research**
 - 5.5 Appendices**
-

5.1 Summary

The aim of this study was to establish the attitudes and insights of swimming coaches in the Free State Aquatics Region towards scientific coaching principles. The objectives were:

1. To establish the attitudes and insights of the swimming coaches (from performance to participation coaches) in the Free State Aquatics Region with regard to scientific coaching principles to increase performance levels.
2. To establish the attitudes and insights of swimming coaches (from performance to participation coaches) in the Free State Aquatics Region with regard to the promotion of swimming to improve participation levels.

Chapter 1 provided a brief introduction and outline of the problem statement that underlies the research questions, aims and objectives that form the basis of this study.



Chapter 2 focuses on an overview of the relevant literature available on the various components that influence swimming coaches' scientific coaching principles towards performance and the promotion of swimming. The chapter introduced the reader to the research topic by means of an introduction. The introduction is followed by common terminology and definitions, which was followed by three main sections.

The first section describes the influences of coaches on swimming performance. The second section contains the components that influence swimming coaches' scientific coaching principles towards swimming performance or development. This section is further described according to three main components that describe the complexity of components that play a role in the performance of the swimming coach or participation of swimmers. These components are role, tasks, functions and knowledge of a coach. Secondly, coaches behaviour, characteristics and different contexts in which coaching took place, were discussed. Thirdly, the efficacy of coaches and coaching philosophy of coaches were discussed. The last section describes how measurement of coach performance is currently taking place.

Chapter 3 describes the research methodology according to research design, subjects, instrument (questionnaire), procedures and analysis of questionnaire.

Chapter 4 includes the analysis of results and discussion thereof.

Chapter 5 presents conclusions and recommendations of research.

5.2 Conclusions and recommendations

The conclusions that were drawn from this research were presented in accordance with the aims and objectives set in Chapter 1.

Objective 1: To establish the attitudes and insights of the swimming coaches (from performance to participation coaches) in the Free State



Aquatics Region with regard to scientific coaching principles to increase performance levels.

Objective 2: To establish the attitudes and insights of swimming coaches from performance to participation coaches) in the Free State Aquatics Region with regard to the promotion of swimming to improve participation levels.

5.2.1 Gender

Conclusion: There is an uneven gender distribution amongst participant coaches (90% female).

Recommendation: The Free State Aquatics Region should do a marketing campaign to attract more male coaches by explaining what job and career opportunities there are as a swimming coach and by providing coach training and development opportunities.

5.2.2 Age

Conclusion: The median age for performance coaches was 43.5 years.

Recommendation: It will be beneficial for the Free State Aquatics Region and Swimming South Africa (SSA) if participant coaches with a high development potential can be identified at a young age and developed to become performance swimming coaches.

5.2.3 Qualification levels of coaching

Conclusion: Almost half (46.7%) of participant coaches have no swimming coaching qualification.



Recommendation: Free State Aquatics Region should do a marketing campaign to explain the necessity of coaches (and prospective coaches) to complete a “Learn to Swim” (LTS) coaching course. This will contribute to the standardisation of water safety and basic coaching methods.

Conclusion: Forty two percent of all performance coaches have only a ‘Learn to Swim’ qualification. “Learn to Swim” is a pre-requisite for level one coaching. The minimum qualification requirement for performance coaching is a level one swimming qualification. This means that the minimum requirements for club level coaching (performance coaching) is met by only 58 % of the performance coaches in Free State Aquatics Region.

Recommendation: Current policies and procedures of SSA must be strictly applied and enforced. Swimmers should not be allowed to participate in SSA sanctioned galas if their coaches are not qualified in accordance with stated regulations.

Conclusion: The lack of qualifications of coaches in the Free State Aquatic Region is considered serious and detrimental to all involved. The implications thereof are that low performance levels can be expected in this region due to the lack of knowledge by unqualified coaches.

Recommendation: Free State Aquatic Region and SSA should enforce the current rules and regulations established for swimming coaches. All coaches must be qualified and have a valid first aid proficiency certificate. If not then the coach and the club should be penalised or put on probation. No swimmer should be allowed to compete in FSA and SSA sanctioned galas until such time as the club and all coaching staff involved have all the necessary qualifications.

5.2.4 Valid first aid certification

Conclusion: Only 33.3% of participant coaches and 41.7% of performance coaches have a valid first aid proficiency certificate. The implications thereof are that few



coaches have the knowledge of emergency procedures to follow in case a drowning incident might occur.

Recommendation: Free State Aquatics Region and SSA should enforce the current rules and regulations established for swimming coaches regarding a valid first aid certificate as part of their water safety campaign called “every child a swimmer”. This campaign promotes teaching every South African child to learn to swim, in order to promote the prevention of more children drowning.

5.2.5 Coaches’ years of experience

Conclusion: Participant coaches’ median years of experience was 5 years compared to performance coaches’ 7 years.

Recommendation: If a coach begins coaching at a younger age, it will enable him/her to gain more experience. Free State Aquatics Region should market coaching as a job and / or opportunity to younger populations as they finish school and are eligible (18 years or older) to become a coach. If current senior swimmers are targeted to become qualified as coaches they will already know the sport and techniques involved and will coach through internal learning (reflections and own experience in sport) when qualified.

5.2.6 Coaches registered with Swimming South Africa (SSA)

Conclusion: Only 23.8% of all coaches (participant and performance coaches) are registered with SSA (which is compulsory).

Recommendation: Only swimmers coached by registered coaches may participate in SSA and Free State Aquatics Region sanctioned competitions. A marketing campaign targeting parents (current and prospective) must be launched by Free State Aquatics Region and SSA to inform them of the requirements of coaches to be registered to ensure coaches are coaching swimming safely and professionally according to standardised methods. The campaign must inform parents and



swimmers that a list of registered coaches is available on the Free State Aquatics Region website.

5.2.7 Performance criteria

Conclusion: Coaches are indirectly assessed according to three criteria; results of swimmers achieved, personal attributes gained by swimmers and years of experience. Performance is also heavily affected by the context within which coaching occurs. Participant coaches cannot be assessed by results of swimmers because they do not compete competitively

Recommendation: There must be a differentiation between the assessment criteria of participant and performance coaches. Swimming South Africa must therefore develop coach specific (participant and performance) criteria to assess coaches.

5.2.8 Knowledge

Conclusion: Performance coaches rated professional knowledge (50%) and interpersonal knowledge (58.4%) as very important whereas participant coaches (50%) indicated that professional knowledge was important

Recommendation: Free State Aquatics Region should conduct workshops and clinics etc. and acquire top-level coaches to present these coaching clinics in the Free State Region. Swimming South Africa should take the overriding responsibility for conducting development opportunities on a national basis.

5.2.9 Learning methods

Conclusion: Performance coaches preferred internal- (75%) and unmediated learning (58.4%) as learning methods.

Recommendation: It would be beneficial to swimming in general and more specific to performance coaches' development, if SSA conducts more specialised coaching



training workshops and clinics. This would improve scientific coaching, resulting in improvement of swimming performance levels in South Africa.

Conclusion: Participant coaches reported that internal learning (56.7%) and mediated learning (40%) were the preferred learning methods.

Recommendation: It is important for SSA to promote their current continuous development program which specifically utilises internal- and mediated learning methods for participant coaching.

5.2.10 Sources of knowledge development

Conclusion: **Time restrictions** with regard to the attendance of workshops and clinics could negatively impact on the knowledge development of coaches.

Recommendation: Free State Aquatics and SSA should provide the latest scientific literature in enhancing swimming performance electronically to registered coaches. This may motivate them to register. This information should only be distributed to registered coaches.

5.2.11 Characteristics of a coach

Conclusion: Passion, enthusiasm and love for the sport was predominantly demonstrated by the performance coaches who differentiated them from the participation coaches' characteristics. Successful coaching results in passion, enthusiasm as well as professional service excellence.

Recommendation: Free State Aquatics Region and SSA must promote the fact that success (performance criteria) in swimming will enhance passion and enthusiasm and motivate love for the sport. This will ultimately enhance long term participation by coaches and swimmers.



5.2.12 Strategies and roles of a coach

Conclusion: Participant coaches play an important role in swimmers prospective performance as they lay the foundation of basic techniques of swimming. The motivation, love and enthusiasm for the sport are established in this introduction phase of swimming. Performance coaches on the other hand are more performance driven and very competitive.

Recommendation: A multi disciplined approach with regard to coaching development could be beneficial to swimming coaches. A Sport Psychologist for example could assist in the elaboration of required characteristics, the role and implementation thereof.

5.2.13 Development framework

Conclusion: The development of the ideal characteristics, strategies and roles of coaches should be a priority for both the participant and performance coach in current practice.

Recommendation: Free State Aquatics Region and SSA must emphasise the required characteristics, strategies and roles that should be addressed as a component of the developmental programme for coaches. This can also be incorporated into the coaching qualification system.

Conclusion: The various forms of learning and areas of knowledge development are important for both the participant and performance coach.

Recommendation: Free State Aquatics Region and SSA must supply coaches with the preferred learning delivery method (mediated learning) through formal learning courses. Swimming South Africa must enforce a more structured internal learning method system for coaches to log hours worked under an accredited coach (mentor) as part of their qualification system (unmediated learning method). Free State



Aquatics Region must supervise instruction and monitoring of hours worked in order for more coaches in the FSA region to be compliant with the rules and regulations of the SSA coaching system.

5.2.14 Multi disciplinary involvement in performance improvement

Conclusion: There was no significant difference between participant- and performance coaches with regard to the multidisciplinary involvement in performance improvement.

Recommendation: The value of a multidisciplinary approach (Sport scientists, Biokineticist, Dietitian or Psychologist) should be promoted to the various coaches by Free State Aquatics Region and SSA to gain a competitive edge. Coaches should be informed of how these professionals can provide valuable help with regard to conditioning and rehabilitation of swimmers.

Conclusion: Putting knowledge into action (results) requires the coach to use an effective mix of organisational skills, teaching strategies, communication skills, group management practices and various professional disciplines.

Recommendation: The multi disciplinary team must be incorporated to provide expertise and scientific knowledge to coaches.



5.3 Summary of developmental needs of participant and performance coaches

The components of knowledge development that must be addressed by a development program for coaches.

Table 5.1: Developmental needs of coaches

	Participant coaches		Performance coaches	
Domain	Knowledge components	Suggested delivery method	Knowledge components	Suggested delivery method *
Knowledge development	Intrapersonal and interpersonal knowledge	Sport psychologist as part of the multi professional team	Professional knowledge	Combination of various multi professionals (sport scientist, biokineticist, physiotherapist etc.) involved as part of the multi-professional team
Learning methods	Internal learning and mediated learning methods	Formal coaching workshops and clinics	Internal and unmediated learning methods	Coach mentorship program
Sources of knowledge acquisition	Books and magazines or Free State Aquatics	Free State Aquatics and SSA should provide list of latest books and scientific coaching information, electronically available for registered coaches on their websites.	Mentorship or advice from other coaches	Consult other coaches



Ideal characteristics, strategies and roles of a coach	Competitiveness characteristic	Competitiveness (in the development programme) can be linked to the number of participants in the programme and the number of participants who continue to the competitive environment.	Coaches must accept mistakes and imperfections	Utilise the expertise of sport psychologists
	Integrating personal and professional life strategy and friend role	Coach parent meetings Social gathering of swimming club	Autocratic behavior strategy and instructor role	The necessity of a task orientated coaching style must be addressed in the development programme

- * These components exclude the standard components or modules included in coaches training manuals of courses presented (i.e. nutrition, anatomy, techniques etc.).
- * This is not a knowledge development plan but merely highlighting suggestive delivery methods of developmental needs of both participant and performance coaches.
- * These knowledge components identified developmental components that must be seen as an addition to standardised content of coaching development programmes.



5.4 Future research

The study demonstrated the need for further knowledge development which could be addressed in future research. Future research should include the following:

- Establish the attitudes and insights of swimming coaches nationally in order to highlight strong points, deficiencies or shortcomings. These deficiencies can be addressed by Swimming South Africa in future coaching education to enhance performance and create an everyday swimming coaches' guide.
- By evaluating the coaches "learning needs" (education, training) insights and attributes nationally, valuable information for future coaching programs could be provided to enhance swimming performance in South Africa.



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APPENDIX A:

INFORMATION DOCUMENT EXPLAINING THE RESEARCH STUDY



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA





Information document

Attitudes and Insights of Swimming Coaches in the Free State Aquatics Region Towards Scientific Coaching Principles

The University of the Free State is doing research in order to gather information on the attitudes and insights of elite and development coaches in the Free State Aquatics Region. We invite you to participate and request your permission to include you in this research study.

The attitudes and insights of coaches will be determined by completion of a participant questionnaire. This study will not only benefit the participants for a better understanding and awareness of their own attitudes and insights as a coach, but also provide the Department of Exercise and Sport Sciences with the necessary information needed for further development of a guide for swimming coaches for understanding and enhancing swimming coaching.

The participant will be given pertinent information on the study while involved in the project and on completion thereof.

Participation is **voluntary** and refusal to participate will involve no penalty. All information will be kept confidential and therefore no personal information is reflected on the questionnaire.

The results of the research study will be used for presentations at national / international congresses and for articles published in health, exercise and sport science journals.

Contact details of researcher:

C. J. Jones: 0824459917 / 051 401-3361



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

✉ 339, Bloemfontein 9300, Republiek van Suid-Afrika / Republic of South Africa / Rephoblke ya Africa Borwa
Biokinetika tel: 051 401 3361 Faks: 051 401 9243

Inligtingsdokument

Houdings en Insigte van Swemafrigters in die Vrystaat Watersportstreek Teenoor Wetenskaplike Afrigtingsbeginsels

Die Universiteit van die Vrystaat is besig met navorsing ten einde inligting in te win oor die gesindhede en insigte van elite en ontwikkelingsafrigters in die Vrystaat Watersportstreek. Ons nooi u om deel te neem en vra u toestemming om uself by hierdie navorsingstudie in te sluit.

Die houdings en insigte van afrigters sal deur voltooiing van 'n vraelys deur die deelnemers bepaal word. Hierdie studie sal nie net tot voordeel van die deelnemers strek ten opsigte van 'n beter begrip en bewustheid van hulle eie insigte en houdings as 'n afrigter nie, maar ook die Departement van Oefening en Sportwetenskappe voorsien van die nodige inligting vir verdere ontwikkeling van 'n gids vir swemafrigters vir begrip en verbetering van swemafrigting.

Die deelnemer sal pertinente inligting oor die studie ontvang tydens betrokkenheid by die projek en by voltooiing daarvan.

Deelname is **vrywillig** en weiering om deel te neem sal geen nedele behels nie. Alle inligting sal vertroulik gehou word en dus word geen persoonlike inligting op die vraelys weergegee nie.

Die resultate van die navorsingstudie sal vir voorleggings op nasionale / internasionale kongresse gebruik word en vir artikels wat in gesondheids-, oefenings- en sportwetenskapsjoernale gepubliseer word.

Kontakbesonderhede van die navorser:



C. J. Jones: 0824459917 / 051 401-3361



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

✉ 339, Bloemfontein 9300, Republiek van Suid-Afrika / Republic of South Africa / Rephoblke ya Africa Borwa
Biokinetika tel: 051 401 3361 Faks: 051 401 9243

APPENDIX B:

INFORMED CONSENT



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

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FREISTATA





INFORMED CONSENT

Attitudes and Insights of Free State Swimming Coaches Towards Scientific Coaching Principles

You have been asked to participate in this research study and have been informed about the study by Colleen Jones.

The goal of this study is to establish the attitudes and insights of swimming coaches in the Free State Region.

This study will not only benefit the participants with regard to a better understanding and awareness of their own attitudes and insights as a coach, but also provide the Department of Exercise and Sport Sciences with the necessary information needed for further development of a guide for swimming coaches for understanding and enhancing swimming coaching.

Your participation in this research is voluntary, and you will not be penalized or lose benefits if you refuse to participate or decide to terminate participation.

The results of the research study will be used for presentations at national / international congresses and for articles published in health journals.

If you agree to participate, you will be given a signed copy of this document as well as an information document, which will be a written summary of the research.

The research study, including the above information has been verbally described to me. I understand what my involvement in the study means, and I may contact the researchers at the University of the Free State at any time. I voluntarily agree to participate in this study.

I understand that I may refuse to participate or withdraw from the study at any time without prejudice.

Signature of Participant

Date

Signature of Researcher

01-05-2010

Date





INGELIGTE TOESTEMMING

Houdings en insigte van die Vrystaat Swem Afrigters in die rigting van wetenskaplike afrigting beginsels

Jy is gevra om deel te neem in hierdie navorsing studie, en jy is op hoogte gebring van die studie deur Colleen Jones.

Die doel van hierdie studie is om vas te stel oor die gesindhede en insig van swem afrigters in die Vrystaat-streek.

Hierdie studie sal nie net die deelnemers in 'n beter begrip en bewustheid van hulle eie houdings en insigte as 'n afrigter, maar verskaf ook die Departement van Oefening en Sportwetenskappe met die nodige inligting wat nodig is vir die verdere ontwikkeling van 'n gids vir swem afrigters' vir die begrip van voordeel en verbetering van swem afrigting.

Jou deelname aan hierdie navorsing is vrywillig, en jy sal nie gepeenaliseer word of verloor voordele as jy weier om deel te neem of 'n besluit te beëindig deelname.

Die resultate van die navorsing studie sal vir voorleggings gebruik word op nasionale / internasionale kongresse gelewer en vir die artikels gepubliseer in gesondheid tydskrifte.

As jy eens deel te neem, word jy in 'n getekende afskrif van hierdie dokument, sowel as 'n inligting-dokument, wat 'n skriftelike opsomming van die navorsing.

Die navorsing studie, insluitend die bogenoemde inligting is woordeliks beskryf is vir my. Ek verstaan wat my betrokkenheid by die studie beteken en ek kan die navorsers aan die Universiteit van die Vrystaat op enige tyd kontak.

Ek het vrywillig eens deel te neem aan hierdie studie. Ek verstaan dat ek mag nie weier om deel te neem of te onttrek van die studie op enige tydstip, sonder vooroordeel.

Handtekening van Deelnemer

Datum

Handtekening van Navorser

01-05-2010

Datum



APPENDIX C:

QUESTIONNAIRE



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



Attitudes and Insights of Swimming Coaches Questionnaire:

You have been requested to participate in a research study. Please note that by completing this questionnaire you are voluntarily agreeing to participate in this research study. You will remain anonymous and your data will be treated as confidential at all times. You may withdraw from this study at any given moment during the completion of this questionnaire. Please answer the questions as honestly as possible; there are no right or wrong answers.

Respondent number

--	--	--

Mark the appropriate block with an X or write your answer in the space provided.

1. Personal Details:

1.1 What is your gender ?

Male	
Female	

1.2 What is your age ?

--	--

 Years

2. General Coaching Information:

2.1 What is the highest level of competition you have coached? (Mark one)

Water safety (toddlers)	<table border="1"><tr><td></td></tr></table>		Primary school	<table border="1"><tr><td></td></tr></table>		Club	<table border="1"><tr><td></td></tr></table>		National	<table border="1"><tr><td></td></tr></table>	
Learn to swim coach	<table border="1"><tr><td></td></tr></table>		High school	<table border="1"><tr><td></td></tr></table>		Provincial	<table border="1"><tr><td></td></tr></table>		PT teacher	<table border="1"><tr><td></td></tr></table>	

2.2 What is your highest level of swimming coach qualification? (Mark one)

Water safety (toddlers)	<table border="1"><tr><td></td></tr></table>		Level 1	<table border="1"><tr><td></td></tr></table>		Level 2	<table border="1"><tr><td></td></tr></table>		Level 3	<table border="1"><tr><td></td></tr></table>	
Learn to swim coach	<table border="1"><tr><td></td></tr></table>		No Qualification	<table border="1"><tr><td></td></tr></table>							

2.3 How many years of experience do you have in swimming coaching?

--	--

2.4 On average, approximately how many hours do you coach a month in a 12 month period?

--	--	--

2.5 Indicate the months of the year that you coach swimming?

January	<table border="1"><tr><td></td></tr></table>	
February	<table border="1"><tr><td></td></tr></table>	
March	<table border="1"><tr><td></td></tr></table>	
April	<table border="1"><tr><td></td></tr></table>	
May	<table border="1"><tr><td></td></tr></table>	
June	<table border="1"><tr><td></td></tr></table>	
July	<table border="1"><tr><td></td></tr></table>	
August	<table border="1"><tr><td></td></tr></table>	
September	<table border="1"><tr><td></td></tr></table>	
October	<table border="1"><tr><td></td></tr></table>	
November	<table border="1"><tr><td></td></tr></table>	
December	<table border="1"><tr><td></td></tr></table>	

2.6 Are you registered with the SA Swimming Association ?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>
Was registered	<input type="checkbox"/>
Never been registered	<input type="checkbox"/>

2.7 Do you have a valid First Aid Level 1 proficiency certificate ?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

If so, in what year did you complete it ?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

2.8 What type of coach would you consider yourself predominantly? (Select one)

Participation coach (development or recreational coach)	<input type="checkbox"/>
Performance coach (competitive coach)	<input type="checkbox"/>

2.9 According to the following categories of coaches, please mark all the relevant, developmentally appropriate a groups which you coach ?

Participation Coach

Toddlers: 4-6 years	<input type="checkbox"/>
Young children: 6-12 years	<input type="checkbox"/>
Adolescents and adults 13 + years	<input type="checkbox"/>

Performance Coach

Young children 10-12 years	<input type="checkbox"/>
Young adolescents 13-15 years	<input type="checkbox"/>
Ages 16 + years	<input type="checkbox"/>

Please answer the following questions in relation to the highest level of coaching you are currently involved in, either as a participation or performance coach.

Section A:

ASSESSING coach performance, knowledge acquisition and various sources, areas or components of coach education

3.1 How important do YOU consider each of the following aspects when assessing coaches' performance? (Select one)

Item	Not Important	Slightly Important	Average Importance	Important	Very Important
Results of athletes (performance criteria)	1	2	3	4	5
Personal attributes gained (satisfaction, enjoyment, self-esteem, competence etc.) by athletes	1	2	3	4	5
Coaches' years of experience	1	2	3	4	5

3.2 How important do YOU consider each of the following knowledge components of coaching ?

Knowledge	Not Important	Slightly Important	Average Importance	Important	Very Important
Professional knowledge (i.e. subject matter or large body of specialized knowledge)	1	2	3	4	5
Interpersonal knowledge (i.e. relationships with students, the educational and local community)	1	2	3	4	5
Intrapersonal knowledge (i.e. reflection, ethics and dispositions)	1	2	3	4	5

3.3 How important do you consider each of the following methods employed during educational training of coaches?

Method	Not Important	Slightly Important	Average Importance	Important	Very Important
Mediated learning (Learning which is guided or led by a facilitator at a clinic or workshop)	1	2	3	4	5
Unmediated learning (Coach seeks out information directly and personally uses the knowledge gained to be implemented in his/her coaching)	1	2	3	4	5
Internal learning (Self-reflection, coach reconsiders and rearranges existing knowledge and experiences to develop his/her coaching method)	1	2	3	4	5

3.4 In the acquisition of knowledge, how important do YOU consider the following areas of knowledge and/or sources to obtain this knowledge?

Item	Not Important	Slightly Important	Average Importance	Important	Very Important
Individual skills development of swimmer	1	2	3	4	5
Mental training and preparation of swimmer	1	2	3	4	5
Individual practice drills of swimmer	1	2	3	4	5
Fitness/conditioning of swimmers	1	2	3	4	5
Strength training for swimmers	1	2	3	4	5
Nutrition and wellness for swimmers	1	2	3	4	5
Injury prevention methods for swimmers	1	2	3	4	5
Recover methods for swimmers	1	2	3	4	5
Knowledge from other coaches	1	2	3	4	5
Own coaching experience and reflection	1	2	3	4	5
Clinics / seminars / workshops	1	2	3	4	5
Training videos	1	2	3	4	5
Watching elite competition live	1	2	3	4	5
Watching elite competition on TV	1	2	3	4	5
Books / magazines	1	2	3	4	5
On-line discussion groups (internet)	1	2	3	4	5
Swimming South Africa Association	1	2	3	4	5
Free State Aquatics Association	1	2	3	4	5
Sport and Recreation Association of South Africa	1	2	3	4	5
University of the Free State	1	2	3	4	5
Free State Sports Science Institute	1	2	3	4	5

3.5 How important do YOU consider the contribution of the following professionals to improve the performance of swimmers?

Item	Not Important	Slightly Important	Average Importance	Important	Very Important
Medical doctor	1	2	3	4	5
Orthopaedic surgeon	1	2	3	4	5
Physiotherapist	1	2	3	4	5
Biokineticist	1	2	3	4	5
Sport Scientist (Conditioning coach)	1	2	3	4	5
Personal Trainer	1	2	3	4	5
Dietician	1	2	3	4	5
Sport Psychologist	1	2	3	4	5

Please answer the following questions in relation to the highest level of coaching you are currently involved in, either as a participation or performance coach.

Section B:

The **IMPORTANCE** of the following characteristics, categories and qualities as a swimming coach
(NOT NECESSARILY YOU)

4.1 How important do you consider the following characteristics as a coach? (not necessarily you)

Characteristic	Not Important	Slightly Important	Average Importance	Important	Very Important
Knowledge	1	2	3	4	5
Innovative and creative	1	2	3	4	5
Passion and enthusiasm	1	2	3	4	5
Inspirational	1	2	3	4	5
Love of the sport	1	2	3	4	5
Accept mistakes and imperfections	1	2	3	4	5
Controlled emotion (patient)	1	2	3	4	5
Dedicated hard worker	1	2	3	4	5
Disciplined	1	2	3	4	5
Competitive	1	2	3	4	5
Consistent and organised	1	2	3	4	5
Professional	1	2	3	4	5
Confident	1	2	3	4	5
Trustworthy	1	2	3	4	5

4.2 How important do you consider the following categories with regard to being a coach? (not necessarily you)

Categories	Not Important	Slightly Important	Average Importance	Important	Very Important
Maximise swimmers' strengths	1	2	3	4	5
Critical decision making	1	2	3	4	5
Integrate your personal and professional life	1	2	3	4	5
Demonstrate or teach the skills of his/her sport	1	2	3	4	5
Develop swimmers' abilities (stroke, potential, skill, etc.)	1	2	3	4	5
Promote good sportsmanship and moral character	1	2	3	4	5
Instill an attitude of respect for others	1	2	3	4	5
Help swimmers to maintain confidence in themselves	1	2	3	4	5
Motivate and build self-esteem in swimmers	1	2	3	4	5
Build self-confidence of swimmers	1	2	3	4	5
Manage your skills as a coach	1	2	3	4	5
Emotional control as a coach	1	2	3	4	5

4.3 How important do you consider the following relationship qualities between a coach and his/her swimmer? (not necessarily you)

Qualities	Not Important	Slightly Important	Average Importance	Important	Very Important
Teacher or instructor	1	2	3	4	5
Parental figure	1	2	3	4	5
Mentor	1	2	3	4	5
Friend	1	2	3	4	5
Leader	1	2	3	4	5
Expert	1	2	3	4	5
Motivator	1	2	3	4	5

Please answer the following questions in relation to the highest level of coaching you are currently involved in, either as a participation or performance coach.

Section C:

Rate the following important characteristics, categories and relationship qualities YOU UTILISE as a swimming coach in practise

5.1 Rate the following important characteristics that YOU utilise as a coach

Characteristic	Not Important	Slightly Important	Average Importance	Important	Very Important
Knowledge	1	2	3	4	5
Innovative and creative	1	2	3	4	5
Passion and enthusiasm	1	2	3	4	5
Inspirational	1	2	3	4	5
Love of the sport	1	2	3	4	5
Accept mistakes and imperfections	1	2	3	4	5
Controlled emotion (patient)	1	2	3	4	5
Dedicated hard worker	1	2	3	4	5
Disciplined	1	2	3	4	5
Competitive	1	2	3	4	5
Consistent and organised	1	2	3	4	5
Professional	1	2	3	4	5
Confident	1	2	3	4	5
Trustworthy	1	2	3	4	5

5.2 Rate the following important categories that YOU utilise as a coach

Categories	Not Important	Slightly Important	Average Importance	Important	Very Important
Maximise swimmers' strengths	1	2	3	4	5
Critical decision making	1	2	3	4	5
Integrate your personal and professional life	1	2	3	4	5
Demonstrate or teach the skills of his/her sport	1	2	3	4	5
Develop swimmers' abilities (stroke, potential, skill, etc.)	1	2	3	4	5
Promote good sportsmanship and moral character	1	2	3	4	5
Instill an attitude of respect for others	1	2	3	4	5
Help swimmers to maintain confidence in themselves	1	2	3	4	5
Motivate and build self-esteem in swimmers	1	2	3	4	5
Build self-confidence of swimmers	1	2	3	4	5
Manage your skills as a coach	1	2	3	4	5
Emotional control as a coach	1	2	3	4	5

5.3 Rate the following important relationship qualities that YOU utilise as a coach

Relationship qualities	Not Important	Slightly Important	Average Importance	Important	Very Important
Teacher or instructor	1	2	3	4	5
Parental figure	1	2	3	4	5
Mentor	1	2	3	4	5
Friend	1	2	3	4	5
Leader	1	2	3	4	5
Expert	1	2	3	4	5
Motivator	1	2	3	4	5

Thank you for taking the time to complete this questionnaire !

Houdings en Insigte van Swemafrigters Vraelys

U is versoek om aan 'n navorsingstudie deel te neem. Let asseblief daarop dat u deur voltooiing van hierdie vraelys vrywillig toestemming verleen om aan hierdie studie deel te neem. U sal anoniem bly en u data sal teer all tye as vertroulik hanteer word. U kan op enige gegewe oomblik tydens voltooiing van die vraelys van die stu onttrek. Beantwoord die vrae asseblief so eerlik as moontlik; daar is geen korrekte of verkeerde antwoorde nie

Respondentnommer

--	--	--	--

Merk die toepaslike blok met 'n X of skryf u antwoord in die ruimte wat voorsien is

1. Persoonlike besonderhede

1.1 Wat is u geslag ?

Manlik	
Vroulik	

1.2 Wat is u ouderdom ?

--	--

2. Algemene Afrigtingsinligting

2.1 Wat is die hoogste kompetisievlak wat u afgerig het? (Merk een)

Waterveiligheid (kleuters)	<table border="1"><tr><td></td></tr></table>		Laerskool	<table border="1"><tr><td></td></tr></table>		Klub	<table border="1"><tr><td></td></tr></table>		Nasionaal	<table border="1"><tr><td></td></tr></table>	
Leer swem afrigting	<table border="1"><tr><td></td></tr></table>		Hoërskool	<table border="1"><tr><td></td></tr></table>		Provinsiaal	<table border="1"><tr><td></td></tr></table>		LO-onderwyser	<table border="1"><tr><td></td></tr></table>	

2.2 Wat is u hoogste vlak van swemafrigtingskwalifikasie? (Merk een)

Waterveiligheid (kleuters)	<table border="1"><tr><td></td></tr></table>		Vlak 1	<table border="1"><tr><td></td></tr></table>		Vlak 2	<table border="1"><tr><td></td></tr></table>		Vlak 3	<table border="1"><tr><td></td></tr></table>	
Leer swem afrigting	<table border="1"><tr><td></td></tr></table>		Geen kwalifikasie	<table border="1"><tr><td></td></tr></table>							

2.3 Hoeveel jaar se swemafrigtingservaring het u?

--	--

2.4 Hoeveel uur rig u gemiddeld in 'n maand af gedurende 'n 12-maande tydperk?

--	--	--

2.5 Gee 'n aanduiding van die maande van die jaar wat u swem afrig ?

Januarie	<table border="1"><tr><td></td></tr></table>	
Febuarie	<table border="1"><tr><td></td></tr></table>	
Maart	<table border="1"><tr><td></td></tr></table>	
April	<table border="1"><tr><td></td></tr></table>	
Mei	<table border="1"><tr><td></td></tr></table>	
Junie	<table border="1"><tr><td></td></tr></table>	
Julie	<table border="1"><tr><td></td></tr></table>	
Augustus	<table border="1"><tr><td></td></tr></table>	
September	<table border="1"><tr><td></td></tr></table>	
Oktober	<table border="1"><tr><td></td></tr></table>	
November	<table border="1"><tr><td></td></tr></table>	
Desember	<table border="1"><tr><td></td></tr></table>	

2.6 Is u by die SA Swemvereniging geregistreer?

Ja	<input type="checkbox"/>
Nee	<input type="checkbox"/>
Was geregistreer	<input type="checkbox"/>
Was nog nooit geregistreer nie	<input type="checkbox"/>

2.7 Het u 'n geldige Noodhulp Vlak 1 vaardigheidsertifikaat ?

Ja	<input type="checkbox"/>
Nee	<input type="checkbox"/>

Indien wel, watter jaar het u dit voltooi?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

2.8 As watter tipe afrigter sou u uself oorwegend beskou? (Kies een)

Deelnemingsafrigter (ontwikkelings- of onspanningsafrigter)	<input type="checkbox"/>
Prestasieafrigter (kompeterende afrigter)	<input type="checkbox"/>

2.9 Volgens die volgende afrigterskategorieë, merk asseblief al die relevante, ontwikkelingstoepaslike ouderdomsgroepe wat u afrig?

Deelnemingsafrigter

Kleuters: 4-6 jaar	<input type="checkbox"/>
Jong kinders: 6-12 jaar	<input type="checkbox"/>
Adolescente en volwassenes: 13 + jaar	<input type="checkbox"/>

Prestasieafrigter

Jong kinders 10-12 jaar	<input type="checkbox"/>
Jong adolessente 13-15 jaar	<input type="checkbox"/>
Ouderdomme 16 + jaar	<input type="checkbox"/>

Beantwoord asseblief die volgende vrae met betrekking tot die hoogste afrigtingsvlak waarby u tans betrokke is, hetsy as 'n deelnemings- of prestasieafrigter

Afdeling A:

BEOORDELING van prestasie, kennisverwerwing en verskeie bronne, areas of komponente van afrigtingsopleiding

3.1 Hoe belangrik ag u elk van die volgende aspekte wanneer 'n afrigter se prestasie beoordeel word? (Kies een)

Item	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Ba belangrik
Uitslae van atlete (prestasiiekriteria)	1	2	3	4	5
Persoonlike voordele (bevrediging, genot, selfrespek, vaardigheid, ens.) deur atlete behaal	1	2	3	4	5
Afrigter se jare ervaring	1	2	3	4	5

3.2 Hoe belangrik ag u elk van die volgende kenniskomponente van afrigting ?

Kennis	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Ba belangrik
Bemiddelingsleer (Leer wat deur 'n fasiliteerder by 'n kliniek of werkwinkel gelei word)	1	2	3	4	5
Onbemiddelde leer (Afrigter win regstreeks inligting in en gebruik self die verworwe inligting vir implementering in sy/haar afrigting)	1	2	3	4	5
Interne leer (Selfbesinning, afrigter herooreweeg en herrangskik bestaande kennis en ervarings om sy/haar afrigtingsmetode te ontwikkel)	1	2	3	4	5

3.3 Hoe belangrik ag u elk van die volgende metodes wat tydens onderwysopleiding van afrigters aangewend word?

Metode	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Bemiddelingsleer (Leer wat deur 'n fasiliteerder by 'n kliniek of werkwinkel gelei word)	1	2	3	4	5
Onbemiddelde leer (Afrigter win regstreeks inligting in en gebruik self die verworwe inligting vir implementering in sy/haar afrigting)	1	2	3	4	5
Interne leer (Selfbesinning, afrigter heroorweeg en herrangskik bestaande kennis en ervarings om sy/haar afrigtingsmetode te ontwikkel	1	2	3	4	5

3.4 By die verwerwing van kennis, hoe belangrik ag u die volgende areas en/of bronne om hierdie kennis te verkry?

Item	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Individuele vaardigheidsontwikkeling van swemmer	1	2	3	4	5
Geestelike opleiding en voorbereiding van swemmer	1	2	3	4	5
Individuele afrigtingsoefeninge van swemmer	1	2	3	4	5
Fiksheid/kondisionering van swemmers	1	2	3	4	5
Kragoefening vir swemmers	1	2	3	4	5
Voeding en welsyn vir swemmers	1	2	3	4	5
Metodes vir swemmers om beserings te vermy	1	2	3	4	5
Herstelmetodes vir swemmers	1	2	3	4	5
Kennis van ander afrigters	1	2	3	4	5
Eie afrigtingservaring en oorweging	1	2	3	4	5
Klinieke/seminare/werkwinkels	1	2	3	4	5
Opleidingsvideos	1	2	3	4	5
Kyk na lewendige elite kompetisies	1	2	3	4	5
Kyk na elite kompetisies op TV	1	2	3	4	5
Boeke/tydskrifte	1	2	3	4	5
Aanlynbesprekingsgroepe (internet)	1	2	3	4	5
Swem Suid-Afrika Vereniging	1	2	3	4	5
Vrystaat Watersportvereniging	1	2	3	4	5
Sport en Ontspanningsvereniging van Suid-Afrika	1	2	3	4	5
Universiteit van die Vrystaat	1	2	3	4	5
Vrystaat Sportwetenskapsinstituut	1	2	3	4	5

3.5 Hoe belangrik ag u die bydrae van die volgende beroepspersone om die prestasie van swemmers te verbeter?

Item	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Mediese dokter	1	2	3	4	5
Ortopediese chirurg	1	2	3	4	5
Fisioterapeut	1	2	3	4	5
Biokinetikus	1	2	3	4	5
Sportwetenskaplike (kondisioneringsafrigter)	1	2	3	4	5
Persoonlike instrukteur	1	2	3	4	5
Dieetkundige	1	2	3	4	5
Sportsielkundige	1	2	3	4	5

Beantwoord asseblief die volgende vrae met betrekking tot die hoogste vlak van afrigting waarby u tans betrokke is, hetsy as 'n deelnemings- of prestasieafrigter

Afdeling B:

Die BELANGRIKHEID van die volgende eienskappe, kategorieë en kenmerke as 'n swemafrigter
(NIE NOODWENDIG USELF NIE)

4.1 Hoe belangrik ag u die volgende eienskappe as 'n afrigter? (nie noodwendig uself nie)

Eienskap	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Kennis	1	2	3	4	5
Innoverend en kreatief	1	2	3	4	5
Passie en entoesiasme	1	2	3	4	5
Inpirasioneel	1	2	3	4	5
Liefde vir die sport	1	2	3	4	5
Aanvaar foute en tekortkominge	1	2	3	4	5
Beheerde emosies (geduldig)	1	2	3	4	5
Toegewyde harde werker	1	2	3	4	5
Gedissiplineerd	1	2	3	4	5
Kompeterend	1	2	3	4	5
Konsekwent en georganiseerd	1	2	3	4	5
Professioneel	1	2	3	4	5
Selfvertroue	1	2	3	4	5
Betroubaar	1	2	3	4	5

4.2 Hoe belangrik ag u die volgende kategorieë met betrekking tot afrigter wees? (nie noodwendig uself nie)

Kategorieë	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Maksimaliseer swemmers se sterk punte	1	2	3	4	5
Kritiese besluitneming	1	2	3	4	5
Integreer u persoonlike en professionele lewe	1	2	3	4	5
Demonstreer of dra die vaardighede van sy/haar sportsoort oor	1	2	3	4	5
Ontwikkel swemmers se vermoëns (slag, potensiaal, vaardigheid, ens.)	1	2	3	4	5
Bevorder goeie sportmanskap en morele karakter	1	2	3	4	5
Kweek 'n houding van respek vir ander	1	2	3	4	5
Help swemmers om vertroue in hulself te behou	1	2	3	4	5
Motiveer en bou selfagting by swemmers	1	2	3	4	5
Bou selfvertroue van swemmers	1	2	3	4	5
Bestuur u vaardighede as afrigter	1	2	3	4	5
Emosionele beheer as afrigter	1	2	3	4	5

4.3 Hoe belangrik ag u die volgende verhoudingskenmerke tussen 'n afrigter en sy/haar swemmer? (nie noodwendig uself nie)

Kenmerke	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Onderwyser of instrukteur	1	2	3	4	5
Ouerfiguur	1	2	3	4	5
Mentor	1	2	3	4	5
Vriend	1	2	3	4	5
Leier	1	2	3	4	5
Kundige	1	2	3	4	5
Motiveerder	1	2	3	4	5

**Beantwoord asseblief die volgende vrae met betrekking tot die hoogste vlak van afrigting
waarby u tans betrokke is, hetsy as deelnemings- of prestasieafrigter**

Afdeling C

**Beoordeel die volgende belangrike eienskappe, kategorieë en verhoudingskenmerke
WAARVAN U tydens oefening gebruik maak**

5.1 Beoordeel die volgende belangrike eienskappe waarvan u as afrigter gebruik maak

Eienskap	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Kennis	1	2	3	4	5
Innoverend en kreatief	1	2	3	4	5
Passie en entoesiasme	1	2	3	4	5
Inpirasioneel	1	2	3	4	5
Liefde vir die sport	1	2	3	4	5
Aanvaar foute en tekortkominge	1	2	3	4	5
Beheerde emosies (geduldig)	1	2	3	4	5
Toegewyde harde werker	1	2	3	4	5
Gedissiplineerd	1	2	3	4	5
Kompeterend	1	2	3	4	5
Konsekwent en georganiseerd	1	2	3	4	5
Professioneel	1	2	3	4	5
Selfvertroue	1	2	3	4	5
Betroubaar	1	2	3	4	5

5.2 Beoordeel die volgende belangrike kategorieë waarvan u as 'n afrigter gebruik maak

Kategorieë	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Maksimaliseer swemmers se sterk punte	1	2	3	4	5
Kritiese besluitneming	1	2	3	4	5
Integreer u persoonlike en professionele lewe	1	2	3	4	5
Demonstreer of dra die vaardighede van sy/haar sportsoort oor	1	2	3	4	5
Ontwikkel swemmers se vermoëns (slag, potensiaal, vaardigheid, ens.)	1	2	3	4	5
Bevorder goeie sportmanskap en morele karakter	1	2	3	4	5
Kweek 'n houding van respek vir ander	1	2	3	4	5
Help swemmers om vertroue in hulself te behou	1	2	3	4	5
Motiveer en bou selfagting by swemmers	1	2	3	4	5
Bou selfvertroue van swemmers	1	2	3	4	5
Bestuur u vaardighede as afrigter	1	2	3	4	5
Emosionele beheer as afrigter	1	2	3	4	5

5.3 Beoordeel die volgende belangrike verhoudingskenmerke waarvan u as 'n afrigter gebruik maak

Kenmerke	Nie belangrik	Letwat belangrik	Gemiddeld belangrik	Belangrik	Baie belangrik
Onderwyser of instrukteur	1	2	3	4	5
Ouerfiguur	1	2	3	4	5
Mentor	1	2	3	4	5
Vriend	1	2	3	4	5
Leier	1	2	3	4	5
Kundige	1	2	3	4	5
Motiveerder	1	2	3	4	5

Dankie dat u tyd afgestaan het om hierdie vraelys te voltooi!

APPENDIX D:

LETTER REQUESTING PERMISSION FROM THE FREE STATE EDUCATION DEPARTMENT



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA





16 April 2010

MR R.S. Malope
Director of Education
Department of Education
BLOEMFONTEIN
9301

Dear Mr R.S. Malope

**RESEARCH PROJECT: ATTITUDES AND INSIGHTS OF FREE STATE
SWIMMING COACHES TOWARDS SCIENTIFIC COACHING PRINCIPLES**

Free State Aquatics has identified the need for increased scientific input into their Federation, for which the University of the Free State has been approached. Free State Aquatics and the Multidisciplinary Research Discussion Group of the UFS identified the lack of national and international excellence in swimming in the Free State as well as the lack of participation in swimming in the region, considering the number (± 300 swimmers qualifying for Free State Championships) of swimmers and time and effort spent on development and elite swimming in the province.

Coaches can be considered influential individuals in athletes' lives and can/should have a positive effect on athletes' performance, behavior, psychological and emotional well being. There is limited information on attitudes and insights of coaches available, with none being found regarding swimmers in the Free State or South Africa.

As researcher in The Department of Exercise and Sport Sciences I hereby request permission to obtain information via a questionnaire from all the swimming coaches and staff as well as physical education teachers that teach swimming as an extramural activity in the Free State Region. All partaking teachers' information will be handled confidentially at all times.

Your urgent response will be appreciated.

Regards

Researcher
Miss C. Jones

Head of Department
Prof H.J. Bloemhoff



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

APPENDIX E:

PERMISSION GRANTED

FROM THE FREE

STATE EDUCATION DEPARTMENT



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA





education

Department of
Education
FREE STATE PROVINCE

Enquiries:

Reference:

April 30, 2010

The CESSS: Sport Scientist
Mabaleng Building A
University of the Free State
BLOEMFONTEIN
9300

FOR ATTENTION: MS C JONES

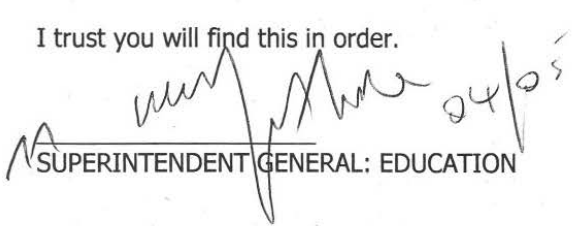
Dear Ms Jones

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH PROJECT:
ATTITUDES AND INSIGHTS OF FREE STATE SWIMMING COACHES
TOWARDS SCIENTIFIC COACHING PRINCIPLES**

Correspondence dated 16 April 2010 regarding the above-mentioned request is herewith acknowledged.

Please be informed that the Free State Department of Education grants permission for yourself to obtain information via a questionnaire from all the swimming coaches and staff as well as physical education teachers who teach swimming as an extramural activity in the Free State Region.

I trust you will find this in order.

 04/05/2010
SUPERINTENDENT GENERAL: EDUCATION

April 30, 2010 Jones request to conduct research free state swimming coaches

Private Bag X20565, Bloemfontein, 9300

Free State Provincial Government Building, 21st Floor, Cnr Markgraaff and Elizabeth Streets, Bloemfontein

Tel: (051) 404 8430 / 8412 Fax: 086 619 8717

www.fsdoe.fs.gov

APPENDIX F:

PERMISSION GRANTED
FROM THE FREE STATE
AQUACTICS ASSOCIATION



Departement Oefen- en Sportwetenskappe
Department of Exercise and Sport Sciences

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA





TO WHOM IT MAY CONCERN

Free State Aquatics and the University of the Free State are in a joint partnership. The High Performance Centrum of the University has permission to use data collected from our swimmers in their research. The results of the research will be made available to Free State Aquatics and Swimming South Africa.

Kind regards

A handwritten signature in black ink, appearing to read "Dr T Steyn".

Dr T Steyn
President: Free State Aquatics
5 January 2010