

AUSTRALIAN MASTERS SWIMMING COACHES NEWSLETTER

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Opinions expressed in this Newsletter, whether editorially or by contributions, do not necessarily represent the views of AUSSI.

Editorial

Hello Readers,

I hope 1999 has started well for you. After being derailed during the Christmas holidays you should now be back into the swing of things. Just in time for the Easter break. Never mind, that's why the Fun comes first in our slogan 'Fun, Fitness and Friendship'.

Once again I will be putting together the AMSC newsletter for the next 4 issues. If you have any articles/ideas you would like to submit please do so. I'm looking forward to receiving them.

Thank you to our regular contributors - the State Coaching Directors (Kay Cox, Rod Porteous, Jodi-Anne Beard), Max Kavanagh and Peter Reaburn. Special thanks to Sue Needham who contributes many articles to various newsletters.

All the best to those competing in Darwin in the AUSSI National Swimming Championships. Also to the organisers, may all your

hiccups only be seen by those behind the scenes. I hope the hard work of both swimmers and organisers pays off and everyone has a great time. Enjoy the read. See you next issue.

Claire Reaburn

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FROM AROUND THE BRANCHES

National Coaching and Education News

I mentioned previously that we were in the midst of reviewing and rewriting the Level 2M coaching course for re-accreditation. Good news, the course was submitted in November and we have just heard it has been re-accredited. My sincere thanks to all those Branch Coaching Directors and members of the coaching panel who contributed to the review. From now on the course will be conducted using the new structure.

Coaches wanting to extend their coaching skills should contact their Branch Coaching Directors to see when a course is planned for their Branch. Most Branches have several well experienced Level 1M coaches who should be ready to take the next step and accept the challenge of level 2M. Hopefully, all Branches will aim to have conducted a Level 2M course by the end of this year.

Many coaches will have become aware that their coaching qualifications have become due for re-accreditation. Re-accreditation of coaches occurs in all accredited sports every four years. AUSSI's re-accreditation rate has been slightly better than other sports but some coaches are still being caught unprepared. The policy of re-accreditation or Updating is designed to keep coaches 'on deck' and 'up to date' with recent methods and changes. In most cases AUSSI coaches do this but being busy people forget to record what they have done. In order to Update Level 1M coaches need to attain 24 points and Level 2M 48 points over a four year period. Coaches need to check with their Branch Coaching Directors for details. Simply it is 1 point per hour of seminar or workshop and non AUSSI activities need to be approved by the Branch Coaching Directors before attending the session. For most coaches they have done the Updating they just haven't claimed the points. An easy way to Update Level 1M is to do the Level 2M. Make sure you are getting credit for what you have done and act now.

An excellent way to gain all your Updating points is to attend swimming related conven-

tions. The ASCTA (Australian Swim Coaches and Teachers Association) Convention is to be held on the Gold Coast from the 27th April until 4th May is an ideal opportunity to hear the latest in swimming trends and participate in swimming workshops. We will have a Masters Stream at this conference, so if you can make a date to be there. Anyone interested can contact Alan Thompson for details of accommodation and registration on 041 8466121 or Fax 02 98211731.

'Coach of the Year' applications are due on the 1st of March. This award identifies coaches who have done an outstanding job in the past 12 months. Hopefully there will be nominations from all Branches this year.

Kay Cox National Coaching Director

Victoria

Exams from last years Level 1M are being marked as I write, results plus certificates will be sent out ASAP. We are still discussing the idea of running the new Level 2M Course later in the year, trying to guage how much interest there is. Congratulations to Kay Cox (National Director of Coaching) on ACC approval of the revised Level 2M Course, many hours of work go into redrafting these courses.

Coaches are firing swimmers up for our long Course meet on Sunday 18 April and then the National Swim in May.

Jodi-Ann Beard

Queensland

Queensland's first "Train the Trainer" Course Presenters Course at Sports House on 13 February. Delivered by Queenslands own accreditated presenter. 15 participants made up of Coaches and Technical Officials attended.

Upcoming courses: - Level 1M Brisbane 17/18 April 1999. Contact Graham Mason/David Speechley for details on 07 3876 2822 (phone) or 07 3876 2833 (fax).

Gladstone weekend workshop mid year July/ August more information to follow.

Continued on page 2 (third column)

Coaches and Female Athletes

R ecent cases of inappropriate behaviour between coaches and female athletes are of concern for sport.

• In 1992 a male volunteer athletics coach was found guilty of sexual violation of two 14 year old female athletes in New Zealand.

• In 1995 in Australia a Senate inquiry was held to investigate allegations of abuse, misuse and other activities, by female gymnasts against coaches at the Australian Institute of Sport. Since that Inquiry Court proceedings have been filed against one of the coaches at the AIS. The case has not been determined yet.

 In 1996 a swimming coach in Australia was found guilty of indecent assault and attempting to have unlawful carnal knowledge with one of his 12 year old swim-

ming students.

• In 1996 allegations were made against a rowing coach, in Australia, that he had an affair with female members of his crew. These allegations were denied.

• In 1997 a 35 year old female bowls player was refused selection to a provincial representative team in New Zealand on the grounds that she was pregnant (8 months).

• In 1997 an Olympic Australian canoe coach committed suicide after allegations he had an affair with one of his students.

These incidents are tragic for sport. They are tragic for those abused, those wrongfully accused and for the sport people concerned. They highlight the need for sporting organisations, coaches and athletes to understand their legal (and moral) obligations to each other.

This update seeks to summarise these obligations and give some comment on what

can be done to meet them.

Legal Obligations

The legal obligations of sporting organisations, coaches and athletes arise out of legislation and the common law. They include the following:

Negligence

Coaches have a duty of care to exercise reasonable care not to cause or allow injuries to athletes under their control. The standard of care which is required is that expected of a competent coach who is both reasonable and prudent. It will depend on the coach's experience and expertise but, for example, a coach of a team of young children must exercise greater care than for adults.

COACHES HAVE A DUTY OF CARE TO EXERCISE REASONABLE CARE NOT TO CAUSE OR ALLOW INJURIES TO ATHLETES UNDER THEIR CONTROL. IT WILL DEPEND ON THE COACH'S EXPERIENCE AND EXPERTISE BUT, FOR EXAMPLE, A COACH OF A TEAM OF YOUNG CHILDREN MUST EXERCISE GREATER CARE THAN FOR ADULTS.

A breach of such duty could arise by: (a) encouraging injured athletes to train or play on, or

(b) advocating the use of painkillers so an athlete can play on (thereby causing further injury), or

(c) supplying athletes with substances which could significantly affect their health and wellbeing,

What's more, the sporting organisation could find itself vicariously liable for the actions of a coach in this situation.

Contract

Many coaches have contracts with their sporting organisations and with their athletes. If there are terms in such contracts about a coach's behaviour and these are breached then a coach may be liable for any damages which flow from that breach.

Agreeing to a Code of Ethics, such as that issued by the Australian Coaching Council (ACC) may constitute a contract between the coach and the ACC, and if breached may result in disciplinary actions against the coach. For example it is in breach of the Code to have physical contact with an athlete which is inappropriate to the situation or unnecessary for the athlete's skill development.

Crime

The criminal law in most States is similar. Apart from the obvious criminal nature of sex offences, there are other of fences which coaches could commit.

(The above article contains comments of a general nature only and is not intended to be relied upon as, nor as a substitute for, specific professional advice. No responsibility can be accepted by Rigby Cooke or the authors for loss occasioned to any person doing anything as a result of any material in this publication.)

Taken from 'Sports Update' Rigby Cooke Lawyers, October No 1 1998

From Around the Branches continued from page 1

Recently ran a Level 1M and 2M in Brisbane with 15 attending (December 1998).

Stroke workshop South Queensland Coaching Director at Twin Towns 20.2.99. Rod Porteous

This is Your Life (Queensland)

The average Queenslander is 33 years of age, married with two children and owns or is buying their own home.

In our spare time, 56% of men and 45% of women play sport. For men that's usually a round of golf and for women it's a dip in the pool. Swimming is the second most popular activity for men while for women it was an aerobics class or gym.

One in 12 people has more than half his or her meals away form home.

If you're male, expect to live to your 75th birthday while women can expect to live to 81

The top causes of death from natural causes are heart disease and cancer. But men are twice as likely to die in a car accident.

Work and Play

Working Men 8hrs 3mins, Women 6hrs 41mins Sleeping Men 8hrs 33min, Women 8hrs 36min Sport/Outdoor Activity
Men 33min, Women 20min
Cooking/Washing up
Men 26mins, Women 1hr 9min
Games/Hobbies/Arts/Crafts
Men 18mins, Women 15mins
Watching TV
Men 2hrs 30mins, Women 2hrs

Taken from the Sunday Mail, Feb 7 1999

"It is said that swimming develops poise and grace, but have you seen how a duck walks". Telstra
Australasian-Oceania Swimming
Professionals
Convention and Trade Expo
ASCTA Annual Conference
(27th April - 4th May)

Masters Seminar (Friday 30th April)

10.00am Registration
10.30am Forbes Carlile Lecture:
Developing Excellent Stroke Technique from Novices to Champions
12.00pm Lunch and Expo

1.00pm Masters Swimming
Coaching - Question and Answer
Dick Hannulla (USA) & Judy
Bonning (USA)

2.30pm Afternoon refreshments -Expo

3.00pm Training for Racing - the Latest Applied Research For further information, or full Convention Program, please contact Ross Gage on Ph: 07 3202 8453 Fax: 07 3202 8456 Email: swimaust@bigpond.com

Do Swimmers Sweat

By Dr Peter Reaburn

Triathlon Research Initiative, Central Qld University

7 hen we exercise, we lose heat from the body via radiation (heat waves), conduction (direct contact with water or a surface), convection (air or water moving past), or evaporation of sweat into the air. In water, swimmers lose heat mainly through conduction and convection if the water is cool enough. However, if the water is varm, the temperature gradient between the body and the water is reduced and heat may accumulate. Fluid could therefore be lost in swimmers through the increased activation of the sweating response.

Fluid loss, particularly in endurance athletes such as distance swimmers, may also take place through breathing. In physically active persons, 2-5 ml of water are lost from the respiratory tract each minute during strenuous exercise. This may be a significant fluid and weight loss over a long and/or intense swim training session. Dehydration due to fluid loss through both the respiratory tract and sweating leads to changes in blood volume and electrolyte imbalance which may in turn cause a reduction in performance.

What the research says:

A number of studies have shown that swimmers "sweat" when they train. The original studies showed that young, fit men lose about 1L/hour when swimming in a heated (28 degree) pool for a 4.7k session (about 1.5 hrs). Louise Burke from the AIS showed similar figures when she examined the Olympic swimmers training in Atlanta before the 1996 Olympics. She also observed that the harder the main set, the more the fluid loss. This makes sense since the harder we train, the more heat we generate, the more we sweat.

So What?

A number of previous studies using runners and cyclists have reported decreases in both aerobic and anaerobic performance following exercise-induced dehydration in hot environments.

Anaerobic or sprint performance appears more likely to be reduced if dehydration is due to both exercise and heat exposure. It appears that electrolyte imbalances and elevated body temperature accompanying exercise-induced dehydration reduce anaerobic performance. Dehydration may also lead to increased muscle tempera-

ture and elevate muscle acidosis, thus inhibiting the energy pathways and anaerobic performance.

Numerous studies have also observed decreased aerobic performance following dehydration in a variety of sports. Dehydration may be associated with a decreased blood volume which in turn increases blood viscosity. An increase in resistance to blood flow may reduce the amount of blood pumped per beat of the heart. This may lead to the heart rate increasing to maintain the blood flow to the swimming muscles.

The implication for masters swim coaches and swimmers is that heart rate at a given submaximal speed or intensity may become higher due to the extra heat load placed on the body.

"DRINK BOTTLES NEED TO BE KEPT ACCESSIBLE AND IDEALLY IN A COOL PLACE (E.G. THE SHADE OF THE BLOCKS) SINCE COOLER FLUIDS HAVE BEEN SHOWN TO BE ABSORBED MORE QUICKLY THAN WARM FLUIDS."

If a swimmer is both heat stressed and dehydrated, aerobic performance may further be compromised. The combination of exercise and heat stress results in competition between the central and muscular circulation for a limited blood volume. In hot and humid conditions, the skin blood vessels dilate to increase skin blood flow so as to allow heat loss. This increased skin blood flow may reduce maximal aerobic power by reducing the proportion of blood getting to the swim muscles.

The available research strongly suggests the importance of swimmers consuming liquid before, during and following a swim training session. The American College of Sports Medicine recommends athletes drink at least 100-200 ml (approx. three mouthfuls = 100ml) per 10-15 minutes of running. In swimmers, this would involve drinking after and during the warm-up, during the main set, after the main set and during the cool down. Drink bottles need to be kept accessible and ideally in a cool place (e.g. the shade of the blocks) since cooler fluids have been shown to be absorbed more quickly than warm fluids.

In hot and humid conditions swimmers would also be advised to weigh themselves before and after training (1kg weight loss = 1L fluid loss) in order to measure how much fluid they are losing. While water has been shown to be adequate for fluid replacement in events or training less than 45-60 minutes

in duration, research has shown that the body absorbs fluid containing 6-8 percent (6-8g/100ml) carbohydrate and sodium (approx 0.05g/100ml) much faster than using water alone. Most commercial sports drinks are about these concentrations.

The longer and harder a session, the more fluid will be lost. The hotter the water or surroundings, the more you will lose. And finally, the more dehydrated you are before you hit the water, the worse off you will be. **Conclusion**

It appears that high intensity endurance swim training leads to significant weight and fluid loss in swimmers. Thus, fluid replacement is strongly recommended during high intensity or long swim training sessions. Furthermore, it is recommended that coaches or swimmers in hot and humid environments or warm pools should weigh their swimmers or themselves before and after swim train-

ing sessions and adjust fluid intake if fluid deficits are observed.

So yes, swimmers do "sweat". They should thus drink before, during and after a session to ensure optimal training performance and recovery.

Reprinted from The Masters Athlete, Issue 23, Feb 99

Swimming Most Popular

Swimming has topped a national survey of interest in sports. The annual Australians and Sports survery for 1997 finds that almost 60% of Aussies between the age of 16 and 65 participate, attend in, view and/or listen to swimming events. Cricket was second and AFL third.

2000 AUSSI National Swim

April 21 - 23 (Easter) 2000

At their recent Annual General Meeting, the Queensland Branch confirmed that Gladstone will be the host city for the 2000 National Swim. This modern city, located 550km north of Brisbane is just south of the Tropic of Capricorn. It has wonderful subtropical climate and an excellent array of tourist attraction and facilities. We can be sure that the Gladstone Gropers Club are planning a warm and wonderful welcome.

How to be an Effective Coach

by Elizabeth Drew

oaches leave a permanent mark in the life of any athlete. A coach is not only an instructor, but also a friend and a motivator. Whether you're a six year old learning to swim, or an Olympic weightlifter, coaches teach an athlete some of the most important lessons in life.

That's why it is so important that coaches are not only effective in their techniques but also realise just how influential they are. Although there is no such thing as the "ideal" coach, there are many qualities that a coach can possess to help them become more effective.

The relationship between athlete and a coach is an important one. The athlete has the ambition and talent and the coach has the knowledge and ability to develop that talent. The relationship should be one of interdependence and mutual respect.

The stereotype of the sports coach is typically a tough, persistent, mean middle aged man who wears a tracksuit and a whistle around his neck. This couldn't be further from the truth.

Expectations of "ideal" coaching vary between age groups, sports, competitive levels and even between the sexes.

Whether you are the coach of the Australian Wallabies or the coach of the junior volleyball team, the same rules still apply. But what makes a good coach? Is it dedication, motivation or criticism? According to many coaches, it is a variety of qualities and methods. There are three common styles of coaching, they include dominating, personable and casual.

According to many, some of the ideal qualities of an effective coach include being a good communicator, motivator, empathiser, good listener and a friend.

State Coaching and Officiating Officer for the Department of Tourism, Sport and Racing, Mike Keelan believes that a coach must play many roles and possess many qualities."It is really important that you develop a good rapport with the people you coach. Greet them with a smile, get involved. A coach is a friend, a motivator and even a scientist," he said.

Mike believes that communication is the key to effective coaching.

"I think you've got to have flexibility as a coach and you have to be able to communicate well. If you can't communicate well then you are never going to be effective", Mike said.

The Australian Coaching Council's Advanced Coach's Manual 'Better Coaching' outlines ares of communication in coaching. Areas include: two way communication. simplicity, clarity, feedback, positiveness, encouragement, empathy, private criticism,

performance-related comments, consistency, credibility, sensitivity, avoiding sarcasm and having a sense of humour.

Yvonne Brett is the consulting psychologist for Queensland Weightlifting and works with coaches to provide feedback on their methods. She agrees that communication is the most important aspect of effective coaching and believes that giving positive feedback is a very important element.

"I'm a big advocator of giving positive feedback to the athlete. When anyone is performing they are very critical of themselves and if that's reinforced by the coach then it can have a detrimental effect on the athlete," she said.

"I believe you should turn a negative experience into a positive one. Rather than saying, don't do this, do this, say okay, this

is what we'll work on.

"COACHES LEAVE A PERMANENT MARK IN THE LIFE OF ANY ATHLETE. A COACH IS NOT ONLY AN INSTRUCTOR, BUT ALSO A FRIEND AND A MOTIVATOR.
........COACHES TEACH AN ATHLETE SOME OF THE MOST IMPORTANT LESSONS IN LIFE."

"Athletes look to their coach for advice and guidance," Yvonne said.

The assistant coach of the Brisbane Bullets, Bruce Palmer believes the key to effective coaching is understanding who you are coaching and in a team situation, what the culture of the team is.

"First and foremost the coach has to realise what the culture of the team is. Then it goes into asking how do we play, what is our style of play and how is our performance going to be measures? "Bruce said.

"A good coach has to understand their subject matter very well. They have to know how to research and continue to improve and gain more knowledge in their area. That's critical."

Sue Nisbet, of Queensland Softball has coached many different softball teams, from junior state sides to senior state sides. Sue also stresses that clear communication is essential for effective coaching. She believes you must look at all aspects of the athlete's life, not just sport.

In addition to good communication and understanding, there are a number of different methods a coach can incorporate into their training sessions.

According to Mike Keelan, there are several ways of improving coaching

techniques. One way is keeping a diary, another is to work with a mentor, such as a more experienced coach and yet another is through video analysis.

Both the Australian coaching Council and Mike have applied another effective coaching method with many team sports in Queensland. It is the games sense phi-

losophy.

This is a method of coaching whereby the coach uses games to develop tactical and strategic thinking, as well as skills. This approach is based on the player understanding the why of tactical play. It incorporates both skill and strategic development.

"The basic philosophy of games sense is that you empower players to take responsibility for their own actions on the field," Mike said.

The games sense approach involves the coach incorporating games that challenge the athlete. This then forces them to analyse and solve problems. The coach becomes the facilitator.

Throughout their lifetime, many coaches will usually find themselves coaching both male and female athletes. Is one sex easier to coach? Should males coach males, and females coach females/Well, frankly the answer is no to both questions. The key, most coaches will agree, is understanding your players. Bruce Palmer who coaches the Australian women's basketball team, the Blazers, says there are very few differences. "I don't think it matters what sex the coach is, or what sex the players are. You just have to understand the talent you have available, and play to those strengths," he said.

Others in the industry believe the there is a difference. "One thing I have observed and learnt is that female athletes tend to be more emotional in their behaviour."

iour," Yvonne Brett said.

"With women you need to be more intuitive. Some coaches may not pick up on the subtle things but it can really effect team dynamics," said Tracey Bellbin, coach of the Queensland Women's Hockey team. Mike Keelan agrees. "You communicate quite differently with females, there's that emotion with females that a male coach really has to understand before he can be effective. The other thing is knowing the physiology differences between males and females and knowing how to get the very best out of those differences," he said.

"There is definitely a difference and as a coach you have to be aware of it, you have to make certain changes to get the absolute maximum out of the athletes."

So now you know that some methods are more effective, what are some "don'ts" of coaching?

Continued on page 5

Letters to the Editor

Dear Claire

As Technical Officer for Western Australia, and a Masters Level 2 coach, I would like to express my concern at some comments written in a recent article on Open Water Swimming.

Dr Peter Reaburn gave his "Ten Open Water Swim Tips", one of which is to "Draft, Draft, Draft". He states that "the only way to go in open water swimming is at someone else's expense", and to "just sit there until it's time to pounce fresher in the last 50m". Not only do I consider this very bad sportsmanship, it is also contrary to the rules of AUSSI. Rule OWS5.2 states "Swimmers shall swim in such a manner as to maintain a reasonable clearance from other competitors except at the start, finish, or where the course or race conditions dictate otherwise. Race judges shall intruct any swimmer who is, in their opinion, taking unfair advantage by pace or slip streaming, to move at least 3m clear of another swimmer".

I realise that many open water swims are not run under AUSSI rules, and there may be no rules against drafting. Even so, if the only way to beat a stronger swimmer is to draft behind them and then to pounce in the last 50m, it seems a shallow victory and not the best way to make friends or gain respect as an open water swimmer.

Most AUSSI members that I know compete in open water swims because they enjoy the swimming and camaraderie. They are proud of their achievements in just competing and finishing. The most loather competitor in the open water swim is the one who sits on your feet all the way then puts on the sprint at the finish.

I hope that AUSSI coaches across Ausalia do not instruct their swimmers to compete in this manner. With open water swimming becoming increasingly popular, good sportsmanship is important to ensure the safety and continued enjoyment of the swims.

Yours sincerely, Peter Maloney

Response

Peter,

Thanks for your letter concerning statements made in an article I (Peter Reaburn) recently wrote on open water swimming firs.

Let me say right from the outset that the article was a reprint from "The Masters Athlete", a publication whose majority of readership are age-group triathletes who are allowed to draft in the swim leg or Queensland-based masters swimmers where AUSSI sanctioned open water swims are scarce and even when held do not have race officials enforcing the draft rule OWS 5.2. "Swimmers shall swim in such a manner as to maintain a reasonable clearance from other competitors except at the start, finish, or where the course or race conditions dictate otherwise. Race judges shall instruct any swimmer who is, in their opinion, taking unfair advantage by pace or slip streaming, to move at least 3m clear of another swimmer".

Recently Kay Cox informed me that AUSSI sanctioned open water swims are on the increase in WA in particular and thus your concern that I might appear to be encouraging cheating.

I agree with you that in AUSSI sanctioned events we must abide by the rules. However, the few AUSSI sanctioned open water swims in Q'ld that I have competed in have had no race course officials and no race briefing letting swimmers know about the 3m draft rule. I'm sure as these events develop this situation will be rectified as race organisers and swimmers become better educated on the AUSSI Open Water Swimming Rules.

I also need to say that your statement "if the only way to beat a stronger swimmer is to draft behind them and then pounce in the last 50m" is "a shallow victory and not the best way to make friends or gain respect as an open water swimmer" is a little naive and suggests you have not competed at a high level in non-sanctioned open water swims. While I agree with you that most AUSSI masters swimmers compete for "fun, fitness and friendship", the swimmers at the front of the bunch, from my experience, play the rules and the game to the hilt. I have not only

won open water swims by playing the draft game, but lost many as well - all the while respecting the 'toe touchers' who have, or have tried, to beat me.

Please don't take it that I'm supporting drafting in AUSSI sanctioned events that brief swimmers or have race officials in attendance - I'm not. However, most strong competitors I know will agree with me when I say that if the rules are not stated in writing or verbally and there is no attempt to enforce them with officials on course, then compete, compete, compete for those after gold or enjoy, enjoy, enjoy for those wanting to be there for other reasons than shooting for medals.

This discussion will hopefully highlight the draft rule for many AUSSI coaches or, from my own personal experience, make AUSSI Technical Officials re-examine the 3m rule. For example, in most 2-4k open water swims, it is a "bunfight" to the first or second turning buoy. Are all swimmers behind the leader(s) DQ'd because they are within 3m? How do you define "the start" in OWS 5.2? Is there a time limit (eg 30 secs in triathlon) in which you can enter and pass through that 3m range? Does the swimmer you pass then have to move out of that 3m limit once you get passed them? How do the officials on course notify the swimmer they are DQ'd?

In Shelley-Taylor-Smith type open water swimming where there are rarely buoys and generally small starting fields, making these rules simple to enforce. However, in most ocean, lake or river swims I've been in, the fields are large and buoys many, making rule enforcement and interpretation difficult.

I thank you for your letter and input to the AMSCN and hope to meet you one day to discuss the issue more.

Peter Reaburn

"NOTHING IS SO
EMBARRASSING AS WATCHING SOMEONE DO SOMETHING THAT YOU SAID
COULDN'T BE DONE."

How to Be an Effective Coach continued from page 4

Tracey Bellbin says that from her experience as an athlete there are many methods that coaches should avoid such as playing people off against each other.

Bruce Palmer says that as an effective coach you have to avoid confusing players with instructions while they are performing.

"When they are competing, cluttering the players with instructions certainly gets in the way of motor skills," Bruce said. "A coach has to recognise when players are giving maximum effort. And they have to understand that mistakes will occur and realise that is part of the game."

So now you have a number of techniques from which you can pick your own unique mix. You've heard the opinions and tips from others in the industry. But don't be afraid to use your own approach, so you too can have what it takes to be a more effective coach.

Characteristics of the Respected Coach are: intelligence, drive, persistence, patience, enthusiasm, knowledge, conscientiousness, confidence, emotional stability, deciseness, character, organisation, preparation, sense of humour, appropriate role model.

Taken from the magazine, "Sweat", January-April 1999. Reprinted with the permission of the Sport and Recreation Division and Sweat.

Coach Recognition Campaign

Coaches, at all levels, deserve recognition

While there are many state or national sporting clubs and organisations conducting various recognition awards for elite level coaches, coaches at the grassroots level, who nurture our junior athletes with no less time and energy, are often missed out.

The Coach Recognition Campaign, initiated by the Australian Coaching Council (ACC), aims to recognise coaches, in particular coaches at

Jointly organised with the Participation Unit of the Australian Sports Commission, as part of Active Australia, the ACT Bureau of Sport and Recreation and the ACT State Coaching Centre, the Campaign will be launched in the Australian Capital Territory (ACT) in June this year.

Through nominations by the general public, sporting clubs or organisations, nominated coaches will receive a recognition kit which included a recognition certificate or a thank you car, an appreciation letter from a high profile coach of the respective sport and discount vouchers for sports gear, coaching resources and courses.

The campaign encourages sporting clubs and organisations to recognise their own coaches. An information kit given to each sporting club and organisation provides information on different ways to recognise coaches. The kit will also include a sample recognition certificate and

case studies.

A secondary aim of the campaign is to promote the need by the general public for coaches registered with the National Coaching Accreditation Scheme (NCAS). A recent NCAS research study found that coaches felt that there is low awareness of the NCAS within the general community and requested the ACC to act on it as a priority. The Coach Recognition Campaign will increase the profile of the NCAS and promote the value of appropriately trained and qualified coaches within the general community.

The target audience of the campaign is coaches, in particular, grassroots level, parents and young children, sporting clubs, organisations

and sporting participants.

The campaign will be piloted in the ACT and nationally launched in the year 2000.

For more information, contact Janice Yeung, Marketing Manager, Australian Coaching Council on telephone (02) 6214 1547, facsimile (02) 6214 1200 or email: yeungj@ausport.gov.au

Coach's Code of Ethics

1. Respect the rights, dignity and worth of every human being.

 Within the context of the activity, treat everyone equally regardless of sex, ethnic origin or religion.

2. Ensure the athlete's time spent with

you is a positive experience.

All athletes are deserving of equal attention and opportunities.

3. Treat each athlete as an individual.

- Respect the talent, developmental stage and goals of each individual athlete.
- Help each athlete reach their full potential.
- 4. Be fair, considerate and honest with athletes.
- 5. Be professional in and accept responsibility for your actions.
- Language, manner, punctuality, preparation and presentation should display high standards.
- Display control, respect, dignity and professionalism to all involved with the sport - this includes opponents, coaches, officials, administrators, the media, parents
- and spectators.
 Encourage your athletes to demonstrate the same qualities.
- 6. Make a commitment to providing a quality service to your athletes.
- Maintain or improve your current NCAS accreditation.
- Seek continual improvement through performance appraisal and ongoing coach education.
- Provide a training program which is planned and sequential.
 - Maintain appropriate records.
- 7. Operate within the rules and spirit of your sport.
- The guidelines of national and international bodies governing your sport should

be followed. Please contact your sport for a copy of its rule book, constitution, by-laws, relevant policies, eg. Anti-doping Policy and selection procedures.

- Coaches should educate their athletes on drugs in sport issues in consultation with the Australian Sports Drug Agency (ASDA).
- 8. Any physical contact with athletes should be: appropriate to the situation; necessary for the athlete's skill development.
- 9. Refrain from any form of personal abuse towards your athletes.
- This includes verbal, physical and emotional abuse.
- Be alert to any forms of abuse directed towards your athletes from other sources whilst they are in your care.

10. Refrain from any form of sexual harassment towards your athletes.

- · You should not only refrain from initiating a relationship with an athlete, but should also discourage any attempt by an athlete to initiate a sexual relationship with you, explaining the ethical basis of your refusal.
- 11. Provide a safe environment for training and competition.
- Ensure equipment and facilities meet safety standards.
- Equipment, rules, training and environment need to be appropriate for the age and ability of the athletes.
- 12. Show concern and caution towards sick and injured athletes.
- Provide a modified training program where appropriate.
- Allow further participation in training and competition only when appropriate. Encourage athletes to seek medical
- advice when required. Maintain the same interest and support towards sick and injured athletes.

13. Be a positive role model for your sport and athletes.

Coaches should ...

- Be treated with respect and openness.
- Have access to self-improvement opportunities.
- Be matched with a level of coaching appropriate to their level of compe-

Rreprinted from the Australian Coaching Council, Australian Sports Commission, November 1998

Older Adults and Women **Exercise More**

On the eve of 1999 International year of Older persons, targeting older adults and women could prove to be fruitful for active leisure providers if Australia follows US trends. According to a study conducted by the National Sporting goods Association, Americans 75 and older increased their participation in seven fitness activities by 27%, followed by the 55 to 64 age group who showed a 17% increase. Meanwhile the 25 to 34 age group showed a decrease of 4%.

In addition, although men showed a higher growth rate in frequent exercise (up to 12%) than women (up 10%), American women exercise more frequently than men (20.4 million women against 15.5 million men). "Frequent participant" is defined as an adult age 25 or older and active in an activity (aerobic exercise, bicycling, callisthenics, exercising with equipment, exercise walking, running and swimming) at least twice a week.

Taken from Australian Leisure Maga-

zine Oct/Nov 1998.

Road Rules fo Safe Swimming

by Anita Killmier

Former National Coaching Director, AUSSI Masters

he one thing I hate as an experienced swimmer is swimming in a lane of novices. Why? How do you like driving on the road with P-platers? Swimming is no different to driving and the code of etiquette in the pool directly reflects the rules of the road.

Swimmers who have trained extensively in a squad situation often swim in very crowded conditions, yet rarely have difficulty, due to the unwritten code of conduct accepted world wide.

Don't you just hate driving on the road ith people who can't obey the simplest of road rules? You know the type. They are the ones who cut in front of you, fail to give way, speed up to overtake you and then slow down once they get in front, fail to indicate or worse, sit right on your tail with little space between you. They can be cautious older drivers, inexperienced younger drivers or learners, the dreaded hat driver or even aggressive drivers who are oblivious to their wrong doing and your frustration / anger. You toot your horn angrily and gesture wildly. Some-

times the culprit will even dare to indicate that you are the wrongful party. Tempers flare and angry confrontations may occur.

What has this got to do with swimming? Everything! Consider your local pool. Lanes are often crowded with a wide variety of ability levels. You may have old, young; fast, slow; experienced and inexperienced swimmers all trying to get a decent workout in the one lane.

Whilst some pools and coaches allow for lanes of differing speeds we rarely see allowances made for experienced verses inexperienced swimmers. Faster swimmers do not necessarily swim safely, just as fast, aggressive drivers do not necessarily equate to good drivers. Experienced swimmers however, have a universal code of etiquette that is rarely taught because it is simple common sense. What amazes me is how normally sensible human beings cannot apply the same common courtesies and principles undertaken when driving, in the swimming pool(Table 1).

If you recognise yourself in any of these scenarios, follow these 10 simple tips to become a more courteous swimmer.

1. Before entering the pool find a lane that roughly equates to your swimming speed. Some pools have signs indicating 'Slow', 'Medium' and 'Fast' lanes. Unfortunately this is all relative and some lap swimmers are known to overestimate their ability.

2. Never dive in to the pool unless there is no one nearby. Your tidal wave could swamp a swimmer trying to take a breath.

3 Always give way to the swimmer coming in to the wall so they can finish or turn uninterrupted (irrespective of who is the faster swimmer). If you are standing at the wall always leave a space in the middle for any incoming swimmer to finish properly or make their turn.

4. If everyone is swimming the same program in a lane, work out a pecking order (fastest to slowest) and depart at exactly 5 or 10 second intervals. If you continually catch the person in front and are not prepared to exchange places, leave a greater gap between you. If you are going to miss a repetition always tell the person immediately behind you.

5. If you want to overtake a swimmer in front during a lap, simply tap the swimmer's toes in front (once only - any more is considered very rude) to signal your intention. Lift your head to see if it is safe to pass then speed up to overtake quickly. Always leave plenty of space between your feet and the other swimmer's hands before cutting back into the line.

Continued on page 8

DRIVER

- 1. Fails to give way.
- 2. Speeds up to overtake but slows down once in front.
- Fails to indicate when overtaking.
- 4. Tailgates.
- 5. Cuts in front of you.

SWIMMER

- 1. Pushes off immediately in front of you just as you are about to make your turn, even when it is obvious that you are a faster swimmer.
- 2. Often the macho guys who can't handle anyone faster. They swim flat out to prove their superiority and then are so exhausted they can't maintain the pace. You are then forced to swim past them again. Sometimes these annoying types are so egotistical they won't let you pass.
 - In a squad situation they always go first, dropping in and out of the line to rest so they can push in front again. They always win the warm-up but rarely train properly. They have one speed fast- and 'pacing' is not in their vocabulary.
- 3. Swims over the top of you.
- 4. Drafts behind you the whole way. This puts added pressure on you. The faster you swim to try to get some distance between you, the faster they go to keep on your toes. What should be a set swum with a comfortable heart rate ends up being a game of 'chasey'. You both end up being 'lactated out'. Often this swimmer will not leave the proper 5 second space between you in a desperate attempt to catch up early. Of course you and I know they are only cheating themselves, but really!
 5. Jumps directly in front of you as you push off, forcing you to 'prop and stop'.

Table 1



Pan Pacific Masters Swimming Championships Perth - 16-23 October 1999

At the Pan Pacific Masters Swimming Championship in Maui, Hawaii last year, Australia was invited to host the event in 1999.

After a protaracted study of bids from Townsville (Qld) and Perth (WA), the National Board has awarded the meet to AUSSI WA for it to be held in the Challenge Stadium in Perth - home of the recent FINA World Swimming Championships.

Details are still being worked out and the other disciplines (water polo, diving and synchronised swimming) will be invited to be part of it too.

Road Rules for Safe Swimming cont'd from page 7

The swimmer who is being overtaken should not stop, but swim as close to the lane rope as possible and slow down slightly. If they feel the tap on their toes close to the end of the pool, they should swim in to the wall and stop (out of the way!) long enough for the faster swimmer to turn and go ahead.

Never draft on the swimmer in front without their consent and always avoid brushing the toes of the person in front un-

less overtaking.

6. Always swim as close as possible to the lane rope. In my experience those who breathe to the right - in a lane swimming clockwise - always tend to swim in the middle of the lane, which can cause potential danger for anyone trying to overtake. These swimmers must make a conscious effort to swim well to the left of the black line.

Swimmers who swing their arms wide in their stroke also tend to swim in the middle of the lane to avoid hitting the lane rope. They should be taught correct biomechanics to recover the hand above the water in a straight line close to the body, and with the elbow carried high.

Always swim with your eyes looking forward. Looking straight beneath you at the black line means you won't see to avoid an accident. It also sets your head position too

low thereby increasing resistance.

7. The fable of the Tortoise and the Hare teaches us an important lesson about pacing. In other words slow swimming is often more important than swimming fast. In order to train properly it is always better to swim more easily at the start of a session so that you have plenty left at the finish. Swimming consistently throughout an entire set will also avoid disrupting the swimmer immediately in front and behind you.

Besides, remember that jerk on the road who kept speeding up and passing you, only to get caught at the next set of lights? Not only did you end up getting there ahead of him, but you also drove more economically

and saved on fuel.

- 8. Swimmers doing a stroke other than freestyle should always swim evasively. In other words it is up to you to modify your stroke to avoid hitting or kicking another swimmer.
- 9. When making a turn, aim to push off in the middle of the wall.

10. If you have to spit please do it into the gutter, rather than pollute the water for everyone else. Water that flows into the gutter goes directly into the filter for cleaning.

Finally, a certain amount of jostling in lanes is inevitable. No one likes to be yelled at when a gentle word will do! Courtesy is catching and an occasional "thank you" to-day goes a long way towards a harmonious tomorrow.

Happy swimming and remember your road rules for a safer, stress free workout.

Reprinted with permission from The Masters Athlete, Issue 6, April 1996.

Scientific Stuff

Cardiac Responses and Performance during Sprint Swimming at Three Water Temperatures

The physiological effects of air temperature are well understood for activities such as running, but far less is know about the influence of water temperature on sprint swimming. To address this issue, researchers selected cardiovascular variables in 15 young male sprint swimmers (mean age 17.0 +/- 0.9 years) during 100 metre swims at maximal effort under three water temperatures (20, 26 and 30 degrees C). Blood pressure was measured, before and soon after each swim. Heart rate was also assessed throughout each effort. With the lowest water temperature (20degrees C) heart rate decreased, while systolic and diastolic blood pressure increased significantly as compared with the warmer conditions. The lowest water temperature also resulted in higher sprinting times and slower swimming velocity. It is concluded that cooler water temperatures constrain sprint swimming performance at maximal effort and compromise cardiac responses.

Alexious S. & Deligiannis A. (1997) Medical Science Research 25(6): 377-379,

1997 Jun.

Older Adults and Women Exercise More

On the eve of 1999 International Year of Older Persons, targeting older adults and women could prove to be fruitful for active leisure providers if Australia follows US trends. According to a study conducted by the National Sporting goods Association, Americans 75 and older increased their participation in seven fitness activities by 27%, followed by the 55 to 64 age group who showed a 17% increase. Meanwhile the 25 to 34 age group showed a decrease of 4%.

In addition, although men showed a higher growth rate in frequent exercise (up to 12%) than women (up 10%), American women exercise more frequently than men (20.4 million women against 15.5 million men). "Frequent participant" is defined as an adult age 25 or older and active in an activity (aerobic exercise, bicycling, callisthenics, exercising with equipment, exercise walking, running and swimming) at least twice a week.

Taken from Australian Leisure Magazine Oct/Nov 1998.

"Why they call a fellow that keeps losing all the time a 'Good Sport' gets me."

CHARLES E. HUGHES (1862-1948) GOVERNOR OF NEW YORK

Physio Facts

by Max (the Master) Kavanagh

Coaches see a lot of different shapes and sizes in Masters swimmers. One common feature is rounding of the thoracic spine (kyphosis). From side on we should have a gently curving spine, arched forward at the neck and lower back (lordosis), and backward in the middle. Increasing kyphosis leads to problems as I explained last issue.

How do we stop the hunching?

There is a lot we can do in the pool but remember we spend more time out than in.

Posture

Masters coaches can emphasise the need to avoid slouching by using lumbar supports and good quality seating.

bar supports and good quality seating.

In the pool simple stretches can be incorporated between brackets. This gives coaches the opportunity to identify those 'stiffies' and it's better to do them when swimmers are warmed up.

To stretch the thoracic spine it's best to clasp hands behind your neck, and with elbows out, gently rotate, tilt sideways and arch backwards (not forwards). Then for the neck, keeping your head level, stretch backwards allowing the thoracic spine to arch in a 'chin tuck'.

A few of these for 10 seconds or so is a start and swimmers should be encouraged to do these regularly during the day to maintain and improve range.

Another cause of thoracic rounding is strength imbalance, which we can deal with next time.

Move well, stay well. Max Kavanagh.

For a Safer Swim

At a swim meet, certain rules are absolutely essential to your safety and the safety of those around you. Don't ever dive into the warm-up lanes. Diving is only permitted in the designated sprint lane. Aside from being extremely dangerous to yourself and other swimmers, diving into one of the other lanes is illegal and makes you eligible for disqualification from the meet.

It is also unwise to jump over the heads of the other swimmers to get into the warm-up lane. It is possible to paralyze a swimmer by jumping or diving accidentally on their back. Take extra precautions at busy meets.

Taken from an article and reprinted with permission from Swim Magazine

Rule: MSW 3.9 The Warm up must be supervised.

Swim Like a Fish

by Daniel Drollette

ennadi Touretski , (Michael Klim's and Alexander Popov's coach), a colourful and sometimes controversial character, studies the motion of fish and writes physics equations on the whiteboard of his poolside office to explain the principles of hydrodynamics. His brand of science-based training has done much to promote the idea that it is not raw power that makes champion swimmers, but Vficiency. Klim and Popov are caught to behave like fish, to "feel" the water and glide through

Magazines and newspapers hail Touretski as the man who transformed topechelon swimming in Australia. But amid all the hoopla, the question remains: how do Touretski and his swimmers do it?

The answers, say Touretski as he paces the poolside, lie partly in genetics and partly in technique. Elite swimmers tend to be born with certain advantages, such as superefficient metabolisms. Olympic swimmers also tend to be tall and longlimbed. When seen on land, Touretski's swimmers are as long and lanky as basketball players. Klim is 1.91metres tall (6'3"), while Popov is 1.97 metres (6'6"). The pair are designed for swimming. Or as Touretski told them: "You have some-thing given to you by God. You must deop it." Fair enough. But how?

> "SUPER SLOW SWIMMING ALSO FORCES SWIMMERS TO CONCENTRATE ON EXTENDING THEIR ARMS A FAR AS POSSIBLE, TO GET MAXIMUM RANGE ON EACH STROKE."

There are two ways to swim faster, say Touretski: increase the force that swimmers use to propel themselves through the water or decrease water resistance. Both approaches come down to technique, but he thinks the second is by far the best. To propel yourself through the water faster you might, for example, increase your stroke rate. But there's a problem here, Touretski says. You'd soon run out of steam. In other words, doubling the speed at which you move ;your arms through the water takes eight times as much energy (energy consumption in water increases as the cube of the stroking rate).

What's more, increasing stroke rate inevitably means taking shorter strokes, which is at odds with most animals behave. When they want to move faster, they increase the distance covered with each movement. Touretski believes swimmers should do what animals do, stretching as far forward as possible to get the longest pull with each stroke.

So if increasing stroke rate isn't the answer, what about pulling harder and bulldozing through the water? Until the 1980s, swimmers and their coaches focused on power. They took inspiration from mechanical models such as propellers and paddle wheels. According to renowned coach Cecil Colwin, author of Swimming into the 21st Century, the science of biomechanics "has been incorrectly focused on emulating the actions of mechanical propellers instead of ... mechanisms move akin to natural flight and fish propulsion", he wrote.

But the real killer for competitive swimmers is a third type of resistance that arises at the interface between the air and water wave drag. Physically speaking, swimmers force a mass of water in front of them to rise up against gravity. This not only robs swimmers of energy, but it has a disproportionately greater effect the faster they go. And it gets worse if a swimmer makes jerky or uneven movements, either bouncing in the water or from moving side to side because this wastes still more energy making waves. Because of this, Touretski believes that trying to increase speed by propelling yourself harder through the water is pointless beyond a certain point. "More propulsive force will only produce higher waves, not higher velocities," he says.

To avoid wave drag, Touretski urges swimmers to eliminate jerkiness in their

To achieve a reduced resistance technique, Touretski's swimmers are trained to improve their balance, locomotion and "feel" of the water.

Touretski's "superslow swimming" method. Balance becomes imperative. "People are more wobbly when moving very slowly and they have to constantly shift weight to get their balance right," he says. The same applies in the pool, and when swimmers can travel smoothly at a very slow speed, they can move more smoothly at high

Superslow swimming also forces swimmers to concentrate on extending their arms as far as possible, to get maximum range on each stroke. And it improves a swimmer's ability to relax at higher speed. When you absolutely know that your hands and feet will be in the right place at the right time, there are fewer frantic actions and less wasted energy during a race.

Training at slow speed also helps the swimmer hone the all-important infuitive "feel" of the water to anticipate, control and manipulate its flow. To a swimmer, "feel" lets you know when you're properly caught the water with your palm and pulled your body forward with minimal resistance.

> I'M FIGHTING FOR BEAUTIFUL TECHNIQUE," HE SAYS. "BEAUTY AND PERFECTION ARE QUITE CLOSE."

Touretski's methods are intended to optimise what he calls the "three Rs": stroke range, relaxation and rhythm. Rhythm is important for reducing jerkiness in the water. When a freestyle swimmer's hand digs into the water his or her body speeds up, but when it is withdrawn the body slows down. Like a one-cylinder engine, this results in uneven propulsion. The larger the changes, the more energy wasted.

Touretski hopes to improve his swimmers' technique still further. "I think Michael (Klim) will look better over time. He's still learning, still growing. I'm fighting for beautiful technique," he says. "Beauty and perfection are quite close."

This article was taken from the 'News Scientist". The story above has been severely abridged, so if you want the full story, look for the 'New Scientist' 1 Aug 1998, No 2145, pages 36-39.

The Buffalo Theory

A herd of buffalo can move only as fast as the slowest buffalo, and when the herd is hunted, it is the slowest and weakest ones at the back that are killed first. This natural selection is good for the herd as a whole, because the general speed and health of the whole group keeps improving by the regular killing of the weakest members.

In much the same way the human brain can only operate as fast as the slowest brain cells. Excessive intake of alcohol, we all know, kills brain cells, but naturally it attacks the slowest and weakest brain cells first. In this way, regular consumption of beer eliminates the weaker brain cells, making the brain a faster and efficient machine. That's why you always feel smarter after a few beers.

What Price the Coach

by Sue Needham L1 Masters Coach

recall way back in 1979 when I joined Adelaide Masters at Norwood Indoor Swimming pool (affectionately nicknamed "the swamp") there was a wonderwoman coach called Josie Samson.

Josie was always there motivating, coaxing and cajoling the whole squad of up to 50 swimmers to perform to their best. Josie swam world record times but trained elsewhere including her won 12.5m backyard pool.

Josie was a valued volunteer, and never paid for her coaching efforts. However, like all coaches she did reap rewards in the form of swimmers' achieving their own goals.

Times have changed dramatically, and Adelaide Masters has a paid coach on deck at each training session. This change has come with the growth of AUSSI and the increase in responsibilities and expectations placed upon our AUSSI coaches. During my years of attending National events my casual enquiry has revealed that many club coaches are paid, either contract or employee. I've

wondered if there is any connection between the performance of the individual and the price of the coach. <u>That's a hard one</u> to measure!

I have been a club volunteer coach for almost ten years (ceased in October '97 due to pool management conflict) and my husband Graham a similar pattern, though ceasing coaching in 1998.

In the last few years the squad ensured that coaching did not cost us financially by providing season passes and some petrol money. We have both commenced swimming again, together, and enjoy the added time away from the pool/coach commitments.

All this preamble brings me to a discussion point

What Price the Coach?

Each committee member is a volunteer, so why not the coach?

My (unashamedly biased) opinion fol-

The dedicated coaches' commitment is vastly different to every other committee member in that he/she must:

1. Give up his/her own club squad swimming, often to his/her detriment in

performance but always in sacrifice of his/ her time. No club coach can effectively coach from within the pool!

2. Plan and attend every session, which means record keeping and planning, and of course attendance poolside three or four sessions a week. On a cool, damp winter's morning when some squad members may sleep inthe coach is always there. Where is the average committee member then? He/she can choose to stay away, in their cosy bed reading the morning paper.

 Maintain and update knowledge, attend courses and update first aid certificates. Time consuming, challenging and fun and ESSENTIAL.

I'm now club secretary of Marooc Water Dragons and delight in undertaking those secretarial duties at erratic hours when necessary. Graham is working as a part time swim teach/coach.

Sue Needham contirubutes many articles to various swim newsletters. I'd wish to acknowledge the article above and 'Turns' which appeared in Volume 10, Number 4, Dec 98, as another of Sue's contributions.

The Importance of Drills

Why we do them?

by Anita Killmier (Former National Coaching Director, AUSSI Masters

wimming efficiently is determined by maximising propulsion and eliminating resistance. Of course we can never eliminate resistance completely, but we can minimise it considerably.

Estimates vary, but one author claims that stroke efficiency in elite swimmers contributes as much as 70% to a performance, while only 30% is the result of fitness and power. Conversely, only about 10% of the poorly-skilled swimmer's performance may be attributed to fitness, the remainder being determined by efficient or inefficient technique.

Two separate studies in the U.S.A. using computer analysis of world class swimmers have proven that the fastest swimmers use the least number of strokes.

Another study by famous USA researcher and masters swimmer Dr. David Costill tested swimmers on strength and endurance. He found that many swimmers who tested exceptionally well in the two areas were only average swimmers, while some individuals who were only average in strength and endurance were outstanding swimmers.

It therefore appears that good technique is the most important factor in swimming fast, yet in my experience, most master's swimmers spend most of their time trying to swim further and faster in training, with little or no time spent on drills and skills.

What would happen if we turned the tables around and devoted 70% of our training time to technique, and only 30% to increasing our speed? This is exactly how most of our top swimmers are now training.

Gennardi Tourestsky, coach of Alexander Popov (currently the world's fastest man over 100 m freestyle), claims that Popov swims up to 120 km per week (depending on the phase of the season). However, most of this is done with the heart rate less than 150BPM with the emphasis on technique.

Popov has an exceptionally long stroke that looks relaxed and effortless even when he is at maximum speed. He also seems to move his arms slower (stroke rate) relative to others around him. With each arm pull he travels further, thereby taking less strokes per lap than many slower swimmers. Coaches refer to this as having good Distance Per Stroke (DPS).

Let's look at this from a different perspective. Imagine Roger takes 48 strokes to swim 50 m while Peter takes only 40. Over a 1500m

race, Roger will take 1440 arm pulls compared to Peter's 1200, a difference of 220 strokes. To take this number of strokes to keep up with Peter, Roger will have move his arms faster, thus increasing his energy output.

It is not hard to see that the efficient stroker will expend less energy fighting the water and be able to put more energy into propulsion

propulsion.

Water is many times more resistive than air so before we can maximise propulsion we must first learn to minimise resistance.

Good swimmers have a heightened sensitivity to the subtleties of water. We call this skill "Kinaesthetic feel" for the water, which is defined as "the sensation by which body position, weight, muscle tension and movement are perceived". By the time swimmers have reached elite levels they have spent thousands of hours and kilometres refining their strokes through drill work.

Drills are any activity designed to heighten the awareness of a swimmer by isolating part of a movement so that it can be improved.

Continued on page 12

AUSSI RESOURCE CENTRE

A great way to get your club together for a social night/fundraiser is to have a video night. Clubs who may not be able to swim all year round could use this to keep some contiinuity in their lay off period.

Items are available for the following hiring charges:

 1 Video
 1 Week \$ 5.00
 2 Weeks \$8.00

 2 Videos
 1 Week \$ 8.00
 2 Weeks \$12.00

 3 Video
 1 Week \$10.00
 2 Weeks\$15.00

A bill will be forwarded to you with the goods (plus postage) and payment must be sent with the items, on their return.

Videos

- Mark Tonelli Gold Medal Series Best for novices in that it
 is simplistic, non-the-less it is very well put together with
 good camera work and footage.
- AUSSI Coaching Seminar with Kirk Marks 40 minutes of theory and practical showing <u>real</u> AUSSI swimmers of all shapes and abilities.
- Swim Easy with John Konrads. 45 minutes. An in-depth analysis of freestyle the John Konrads way. Excellent visual images.
- Swimming Breaststroke. 19 minutes. Superb analysis of the strokes of Adrian Morehouse and Nick Gillingham, plus 5 minutes of Sam Riley.
- The Athletic Institute Swimming Series Covers all strokes, starts and turns with progressive skills. A bit dated but excellent under water shots of good basic techniques. Well worth a look.
- AUSSI Workshop Tailoring a programme plus booklet.
 This worshop held in Tasmania features Anita Killmier.
- Swimming Fastest III John Trembley. A video and book combination. A must for all coaches, teachers and swimmers.
- "Swim Smarter, Swim Faster." I & II. Richard Quick and Skip Kenny of the Stanford University take you through nearly two hours of stroke drills, techniques plus Starts, Turns and Finishes.
- ASCA Conference Masters Stream Adelaide 1992.
- Masters Stroke Techniques. A biomechanical analysis of the four strokes by John Leonard of ASCA, with demonstrations of drills by US Masters swimmers. 50 minutes.
- Your backyard swimming pool is your home fitness centre

 as the name suggests, gives ideas to utilise your pool to full
 advantage.
- Strength Training This 30 minutes video provides a comprehensive update on the methods and principles of strength training, i.e. Body Building, Isometrics,

Maximal Weights, Eccentric exercises.

Excellent for swimmers and coaches about to embark on a strength programme.

- Stretching Bob Anderson. A really great selection of exercises demonstrating correct technique.
- Food for Sport featuring Karen Inge. Very good!
- Sunrice High Performance Eating Strategies, plus booklet.
 let. A good video made better by the booklet.
- Every Second Counts Effective Time Management in Sports
 Training. Whilst this video is not specific to swimming it
 gives many good examples of how time is wasted in coaching. A good tool for staff workshops or self evaluation.

- Visualisation Focusing Techniques and mental rehearsals are used extensively by all top athletes to enhance performance. This video gives a comprehensive look at the use of visualisation in sport through various case studies.
- Media Matters plus booklet this is hired to you as a kit and is
 designed for individuals and voluntary groups involved in promoting fitness and healthy lifestyles in the community. It can
 be used to publicise and attract members, hence is ideal for
 AUSSI Clubs.
- Exercise beats Arthritis A unique series of exercises set to music, designed to keep joints mobile.
- Give it a Go! Coaching Athletes with disabilities

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Drills continued from page10

The more drills you know and can practise the better off you will be, but remember that only "perfect practise makes perfect". Enter the coach!

A good coach with an eye for detection of errors and correction of technique will set appropriate drills and oversee that they are performed correctly. It is common knowledge that what swimmers (even good swimmers) think they are doing, and what they are actually doing, are often completely different. Hence the need to have someone constantly monitoring you and giving feedback.

Drills need not be hard, can often add a bit of fun to a workout, and certainly add lots of variety. Learning other strokes will also help develop "feel" for your main stroke, thus serving a similar role.

Yet many Triathletes, open water /distance swimmers and a vast percentage of master's swimmers steadfastly ignore drills. Reasons given are many and varied but they include:

* "I already know how to do them." Yeah right! Should read as "I may know what they are, but I can't do them well enough."

 "It's too late to change my technique. I'll never accept that one! With Master's swimming potentially being a lifelong sport, it's never too late to start. Besides accepting new challenges in later life is one of the great-

est contributing factors to a healthy old age.

* "I'm not interested in changing my technique, I just swim for fitness." I have

never met anyone who puts in time at something that doesn't want to see some sort of improvement. Besides doesn't it get frustrat-

ing watching everyone pass you by?

* "It's too hard to change." Classic cop out! Read as "couldn't be bothered making the effort", because that's precisely what it will take. Difficult yes, particularly after years of swimming, but not impossible with a bit of extra and consistent work.

"I want to maximise my training time. I haven't got time for all that stuff." Člassic misconception and I hope by now you are starting to change your mind. Greatest improvements in speed will be made through correcting faults rather than training harder, further or faster. These types of swimmers don't usually last long either. They invariably don't know how to swim slowly and often burn out through overtraining.

Drills can be done warming up and warming down, can be swum between sets for recovery, and may be used as a main set for a great cardiovascular workout. Experience has taught me that drills are disliked in the main because the legs must work harder in order to perform them correctly. In other words swimmers who are poor kickers are forced to kick harder. Drills therefore are a great way to strengthen the legs. (Alexander Popov can kick 50m in under 30 seconds!) Flippers will go a long way to alleviate this problem, enabling you to relax and focus on feeling the correct movement instead of struggling to stay afloat.

Here is one drill that you can try on any stroke.

Swim one lap of the pool and count how many strokes you take (Stroke Count or SC) On the next lap, reduce this as much as possible. Now do a set of 5 x 200s (long course) or 10 x 100s (short course). Each time you begin a repeat take your normal number of strokes and reduce this by one stroke each successive lap. Each repeat will therefore be swum as SC, SC minus 1, SC-2, SC -3. Once you've got the hang of this try doing all in SC -3 and then, try to descend your time. Now that's a workout!!!

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Dates to Remember

16 - 23 October 1999 Pan Pacific Masters Swim Champ. Perth, Western Australia

> 25 Sept - 3 Oct 1999 Australian Msters Games Adelaide, S.A.

March/April 2000 AUSSI National Swim Gladstone, Queensland

27 July - 8 August 2000 FINA World Masters Swimming Championships Munich, Germany

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