

Workbook for

PSYCHOLOGICAL CONTENT FOR

USRPT

Physical and Mental Strategies for

Swimming Competitions

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A special workshop describing the factors to be controlled and maximized prior to
and during swimming races:
for

USRPTIA Webinars #4 and 5

2017

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2017

About the Presenter

Dr. Brent S. Rushall is Professor Emeritus at San Diego State University. He has published 55 books and over 450 articles, book chapters, and psychology tests, and has more than 14,000 abstracts and articles on the World Wide Web. His academic recognitions have included the designation of being the founding scholar in **Behavioral Sport Psychology** and a world authority in **Coaching Science**. He has been the keynote speaker at many world congresses for both sport and academia. In recent years, Dr. Rushall has received prestigious awards that recognize his accumulated contributions to the field of sports science.

Dr. Rushall is a four-time Olympic Team psychologist for Canada, and has represented Canada at Commonwealth Games, World Championships, and World Cup events in a number of sports. He is a member of the Olympic Club of Canada. He has consulted with many international sport teams and organizations primarily in the field of performance enhancement. His texts, manuals, and assessment tools have been translated into several languages and are used in elite athlete programs in many countries.

As a participant, Dr. Rushall played international rugby football and was a member of the first All-American rugby team. He has received national coaching appointments in the sports of swimming, rugby football, and rowing. He has been psychologist to some of the world's best athletes.

SWIMMERS COACHED

To be classified as an ELITE INTERNATIONAL coach by the American Swim Coaches Association at the start of the 1990s, Dr. Rushall had to have coached five world-ranked swimmers. Those accepted were Nancy Garapick (200 m BK WR), Graham Smith (World champion WR 200 m IM), Bill Sawchuk (WR 200 m IM), Becky Smith (200 m Fly OG silver), and Sheryl Lawrence (Macon, Georgia, 100-yard Fly). During his tenure with the Canadian national teams in the 1970's as psychologist, Canada rose to be ranked second in the world behind the USA. Previously, he had coaching/staff positions with Indiana University NCAA National Champion teams (1968 and 1969) with Olympic Gold Medalists Charlie Hickox and Don McKenzie, Canadian National Teams (1975-1981), and USA national teams (co-opted in 1968 and official in the early 1990's). Estimates of swimmers are the number of national record holders (~40), Olympic medalists (~20), and national team members (~100+). In those estimates are the Indiana swimmers (1965-1969) who were World and Olympic Champions, medalists, and record-holders. As well are the four 1964 Olympians from Ryde, Australia (including 220 y BR WR Marguerite Ruygrok and OG Silver Medalist Jan Murphy), and eventual WR holders John Bennett and Karen Moras, and CG Champion Ron Jackson. More locally in Australia, was participation with FAI Carlile and Paul Hardman at Narrabeen in the first half of the 1990s. Swimmers included World Champion Paul Kent, Robert Abernethy - the first Australian to break 22 seconds for 50 m, and national representatives Jo Griggs, Brooke Ayre, Richard Upton, and Melanie Dodds, and the national status of the FAI Carlile team during those years. There are other Olympic and World Champions with whom Dr. Rushall has consulted through Sports Science Associates but for privacy reasons, their names cannot be mentioned unless they do so first. Finally, Jan Cameron of New Zealand, a Ryde 1964 Olympian and Silver Medalist, was also one of Dr. Rushall's graduate students at Lakehead University. From 1993 until 1995, Dr. Rushall served as psychologist for Swimming USA's national teams. Since 2000, Dr. Rushall has had only one stint with coaching a swimming team full time -- nine months as volunteer-advisory coach with the University of San Diego Women's Swim Team. In that short time, the USD team improved to win the conference championship, won more races at the championships than all the other 30+ schools in the conference combined, swept five events (first-third) while no other school swept any event, had every swimmer score points, and the total point score achieved was a record that still stands today. The USD team has not won its conference or performed to that level again.

In recent years, Dr. Rushall has served as a consultant to a number of international swimming organizations and elite clubs. He continues his association with the late Forbes and Ursula Carlile's organization. Most recently, Dr. Rushall initiated the formation of the Ultra-short Race-pace Training International Association (USRPTIA).

Dr. Rushall's swimming coaching certifications have been Elite International (American Swimming Coaches Association), Level III (Swimming Canada), Level 3 (Australian Swimming Coaches and Teachers Association), and Gold Level (USRPT International Association).

DEVELOPING SUCCESSFUL PRE-RACE FOCUSING STRATEGIES IN SWIMMING

BASIC ASSUMPTIONS OF THE TRAINED STATE

1. A fully trained state has been achieved prior to the commencement of the competitive phase of training.
 - no attempts will be made to gain further advantages by improving physical conditioning.
2. All technical learning will have ceased at least one month prior to the important competition.
 - only technical and tactical refinements will be contemplated.
3. At least one, and preferably more, competitions has been experienced as a "dress rehearsal" for what will be done in the pre-competition and competition phases of a race.
4. Nothing new or special will be required of swimmers at the target important competition.
 - such competitions are to be treated as the "final examination" for the swimmer to execute what has been planned, trained for, and practiced.
5. The focus of the final emphasis of training (at least two weeks) is psychological preparation, that is, the *stuff* of this presentation.
6. Allow some recovery time from travel fatigue.
7. The underlying philosophy of this approach is:
 - i. to minimize uncertainty in swimmers with regard to what is to be done in a race (familiarity and preparedness produce confidence);
 - ii. to allow the only stress that occurs to be one of adapting to the new environment;
 - iii. allow the swimmers to feel totally in control of the pre-competition activities; and
 - iv. the focus on psychological development and coping will consume the attention of swimmers in a constructive and beneficial manner so they will not be distracted by negative thinking, doubts, anxiety, or a loss of confidence.

INVOLVEMENT IN NEW SURROUNDINGS

When people are made to be active and involved in new, unfamiliar surroundings, they are better able to solve problems and adapt.

1. Structure immediate investigative and awareness activities.
 - go to the performance arena
 - then investigate the living environment and the facilities
2. It is better to be too extensive than too brief.
3. Aim to produce a state where athletes know the resources available and that they can handle personal problems.
4. Have someone perform advance preparations by attending the site beforehand.
 - have some idea of what is of concern to the athletes (e.g., living conditions, competition sites, control protocol at the competitions, equipment storage, security, general activity areas, laundry, medical, communications, etc.)
 - produce orientation materials (e.g., maps, schedule of competitions, activities, formal meetings and gatherings, etc.)
5. For jet-lag and travel fatigue plan special arrangements (see Rushall, B. S., & Pyke, F. S. (1991). *Training for sports and fitness*. Melbourne: Macmillan Australia).

GENERAL ACTIVITIES AT THE COMPETITION SITE

It is assumed that adequate preparations have occurred prior to traveling to the competition site. Everything is planned to reduce uncertainty and unexpected distractions.

At the Competition Site

1. Relaxation or Standard Mental Activity: **CONTROLLED STARTING POINT**

2. Warm-up: **FACILITATE NEUROMUSCULAR PATTERNS, INCREASE CORE TEMPERATURE, FACILITATE FOCUSING**

Physical warm-up:

- i. General metabolic
 - Aerobic

 - Stretching

- ii. Specific metabolic

- iii. Specific neuromuscular

Keep warm and active

FOCUSING FOR RACES

RACE BUILD-UP ROUTINE: Peaking The Readiness State

Stretch

Keep active

Do not be distracted

Isolate from others

Concentrate on task

Performance enhancement imagery

Gradually neglect distant segments

Positive self-talk

Physical pump-up

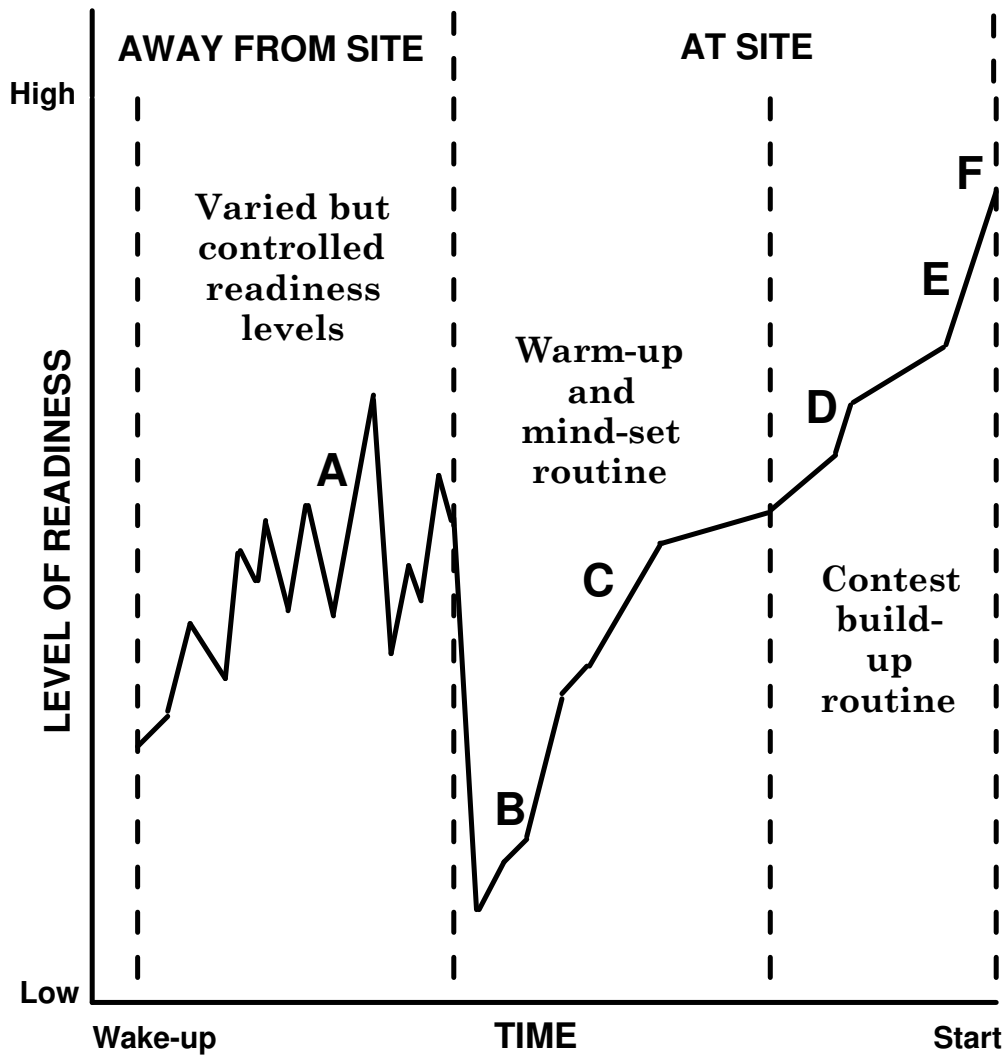
Emotional pump-up

Focus on start with maximum intensity

Preparation Concerns: PHYSICAL AROUSAL, MENTAL ACTIVITY, AND SELF-EFFICACY

- a. Emotional control to peak as start approaches.
- b. Thought control to be on task and preparations.
- c. Narrow focus of thought control with no distractions.
- d. Time the highest energy readiness with the narrowest focus for the start.
- e. Always maintain deliberate control of emotions and focus.

THE RELATIONSHIP OF THE LEVEL OF COMPETITION READINESS TO THE PRE-COMPETITION PHASE TIMING



An illustration of the relationship between pre-race readiness and the phases of the race preparation period. **A.** A high fluctuation in readiness levels is tolerated. **B.** Readiness is reduced to a defined level. **C.** Readiness gradually increases through controlled and deliberate activities. **D.** Readiness accelerates as a race build-up routine is performed. **E.** In the latter stage of the race build-up routine readiness increases dramatically as a result of emotional and physical pump-up routines. **F.** The highest appropriate level of readiness is achieved at the start of the race.

STRATEGY PLANNING WORKSHEET

| Primary Behaviors | Coping Behaviors | Outcomes |
|---|--|-------------------------------|
| Warm-up and Mind-set Routine | | |
| <i>Place equipment in one location; find bathroom; earphones; isolate</i> | <i>Get away where will not be bothered</i> | <i>Isolate; do own thing</i> |
| <i>Take water bottle and strategy sheets</i> | <i>Drink often; say strategy out loud</i> | <i>Hydrate and review</i> |
| <i>Lie with legs raised; read positive imagery sheet</i> | <i>Recite imagery sheet items</i> | <i>Relaxed and positive</i> |
| <i>Easy jog while thinking positive</i> | <i>Increase intensity if difficult</i> | <i>First warm-up</i> |
| <i>Do stretching with positive thinking; pick sections of race-strategy</i> | <i>Continue with ballistic stretches</i> | <i>Loose and confident</i> |
| <i>Swim distance: 60 - 70 - 80% effort</i> | <i>Continue as much as needed</i> | <i>Feel good long stroke</i> |
| <i>Swim surges with power</i> | <i>Continue for feel of water</i> | <i>Feel power</i> |
| <i>Review strategy sections: appropriate for warm-up intensity</i> | <i>Continue until gain concentration</i> | <i>Focus on race-strategy</i> |
| <i>Get out when satisfied with stroke feel very good and confident</i> | <i>Continue for rhythm and length</i> | <i>Be confident</i> |
| <i>Check racing equipment</i> | <i>Use other set if necessary</i> | <i>Best gear</i> |
| <i>Positive imagery section as soon as put on racing suit</i> | <i>Repeat other sections</i> | <i>My day</i> |
| <i>Walk-stretch-jog in team warm-up suit; performance enhancement imagery on as many segments as possible</i> | <i>Read strategy; increase intensity</i> | <i>Use up time; focused</i> |
| <i>Watch time; check start time</i> | <i>Check race in progress</i> | <i>Progress?</i> |
| Delay routine: <i>repeat imagery, jog and stretch swimming joints, plenty of recovery</i> | <i>Add more violent stretching</i> | <i>Technical excellence</i> |
| Advance routine: <i>to latter stages of race build-up routine; imagery looking at pool sections</i> | <i>Talk self through it</i> | <i>Intensify; focus</i> |

A sample **pre-race strategy** for **race-site mind-set** and **warm-up activities** prior to the implementation of a race build-up routine.

STRATEGY PLANNING WORKSHEET

| Primary Behaviors | Coping Behaviors | Outcomes |
|---|--|--|
| <p><i>Race Build-up Routine</i> <i>Stretch 10 sites and movements; dress warm</i></p> <p><i>Positive self-talk; drink</i> <i>Go to warm-up pool</i> <i>"Excuse me - later" for disruption</i></p> <p><i>Swim 80-90%</i> <i>Burst swimming capturing stroke, length, and rhythm</i> <i>Bursts with strategy control</i> <i>Positive self-talk; image aggressive swimming with much energy</i> <i>Get out when mind and body both are together</i> <i>Dress and drink; active</i> <i>Emotional pump-up; hate and kill the pool</i> <i>Physical pump-up; bigger movements; stretch in race rhythm</i> <i>Focus on start; leg power and speed; streamlined</i> <i>Walk to start; image segments; extra acts</i> <i>Blocks; image; physical and mental pumps; only look at the lane and walls</i> <i>To race strategy</i></p> | <p><i>Bounding and rolls</i> <i>Positive imagery</i> <i>Least crowded lane</i> <i>Turn and jog/swim away</i> <i>Occasional burst with length</i> <i>Ask coach to time sections</i> <i>Talk strategy while swimming</i> <i>Make body be ready</i> <i>Continue cycling length and rhythm</i> <i>Keep self-talk going</i> <i>Fearless and on-the-edge</i> <i>Act out first length</i> <i>Practice posture and reaction</i> <i>Physical and mental pump</i> <i>Feel everything</i></p> | <p><i>Loose and warm</i> <i>Feel great</i> <i>Isolate</i> <i>No interruptions</i> <i>Feel ready</i> <i>Feel stroke</i> <i>Focused</i> <i>Terrific feel</i> <i>Ready to go</i> <i>Final stage</i> <i>Peaking</i> <i>Powerful</i> <i>First segment</i> <i>On the edge</i> <i>In control, ready</i></p> |

A sample **pre-race strategy** for a **race build-up routine**.

PLANNING PRE-RACE STRATEGY ACTIVITIES

- Only behaviors (mental and physical) done before a race although swimmers must be able to recall/recite their race strategies.
- OUTCOMES and COPING BEHAVIORS are very important.
- Write strategies in pencil. It is likely they will have to be re-written several times when changes are made and better activities are inserted.
- Change as better activities, actions, and contents are discovered.
- Will need copies of the prepared strategy.
- Strategies are to accompany swimmers to their competitions.
- At competitions are read or referenced to maintain focus.
- Learn and follow the script exactly so that a swimmer is totally certain of what to do.

This is the end of Webinar #4 Part I

THIS IS THE START OF Webinar #5 Part II

Review main points of Webinar Part I

DEVELOPING SUCCESSFUL RACE STRATEGIES

THE CONTENT OF RACE STRATEGIES

1. Segmenting the Performance: **MAINTAIN BETTER CONCENTRATION AND FOCUS**

- Divide into discrete units
- Very individual
- Attentional focus: sequential achievement of goals
- Units of rehearsal, practice, goal-setting, and focus

2. Task-relevant Content: **MAINTAIN FORM AND EFFICIENCY**

- technical and tactical aspects of performance
- two thirds of competition thinking
- specific not general (must cause performance to change)
- each activity should have a specific outcome
- variety of expression
- perform better not harder
- fatigued and non-fatigued state differences

EXAMPLES OF RACE SEGMENTATIONS

A 200-METERS BACKSTROKE RACE SEGMENTED BY SKILL DEMAND

| Segment | Skill features | Distance |
|---------|---|----------|
| 1 | Start, underwater kick, and surfacing | 15 m |
| 2 | Speed, pace, and stroke length | 30 m |
| 3 | Turn, underwater kick, and surfacing | 20 m |
| 4 | Direct push, stable body, and streamline | 30 m |
| 5 | Turn, underwater kick, and surfacing | 20 m |
| 6 | Rate, hip position, body-hip roll, push back | 30 m |
| 7 | Turn, underwater kick, and surfacing | 15 m |
| 8 | Even stroking, early push, kick evenly, and streamline | 20 m |
| 9 | Finish: head back and underwater, wide entry, look for wall over top, and touch under water | 20 m |

AN 800-METERS CRAWL STROKE RACE SEGMENTED BY DISTANCE

| Segment | Distance | Segment | Distance |
|---------|----------|---------|----------|
| 1 | 50 m | 6 | 50 m |
| 2 | 150 m | 7 | 50 m |
| 3 | 200 m | 8 | 50 m |
| 4 | 100 m | 9 | 30 m |
| 5 | 100 m | 10 | 20 m |

TASK-RELEVANT THOUGHT CONTENT WORKSHEET

Those features of technique, tactics, and control that are important for the race should be listed on this sheet. For each item, list one different approach to thinking about the content.

| Task-relevant Content | Alternative Form of Thinking |
|---|--|
| <i>Fix hand in water to push back</i> | <i>Use forearm and upper arm to support the fixation point</i> |
| <i>Long reach over the water before entering</i> | <i>Finger tips enter first by reaching up and out</i> |
| <i>Head rolls to side</i> | <i>Keep ear and eye down</i> |
| <i>Immediately apply pressure backward on entry</i> | <i>Bend arm as soon as contact water surface</i> |
| <i>Breathe outside the effort phase</i> | <i>Breathe as hand exits the water</i> |
| <i>Symmetrical body and hip roll</i> | <i>Have elbows recover to the same height on both sides</i> |
| <i>Align upper arms with shoulder roll</i> | <i>Upper arm at least 45°</i> |
| <i>Good elbow bend under water</i> | <i>Move arm as a unit to apply force directly backward</i> |
| <i>Low hand recovery</i> | <i>Point/hang fingers down as carried forward</i> |
| <i>Keep head down and bottom up</i> | <i>Kick so that heels just break the surface</i> |

A completed **Task-relevant Thought Content Worksheet** for an outstanding college swimmer.

3. Mood Words: **SET MOOD AND CHARACTER OF PERFORMANCE**

- used to embellish task-relevant thinking
- primitive words with movement or emotional counterpart
- when said should elicit the appropriate bodily state
- must include appropriate expression and emotionality
- new sport language

4. Positive Self-statements and Self-talk: **MAINTAIN APPLICATION EFFORT AND EFFICIENCY**

- self-talk mentally or out loud
- spread all through performance
- four roles

5. Coping Behaviors: **MAINTAIN CONTROL IN ADVERSITY**

- what to do if primary strategy does not work (a secondary strategy)
- possible problems:
 - loss of control
 - distractions
 - delays
 - tension
 - miss or errors

ACTIVITY MOOD WORDS - SUGGESTED SYNONYMS FOR SWIMMING PERFORMANCE CAPACITIES.

| | |
|-----------------|---|
| Strength | crush, squash, violent, solid, crunch, intense, muscle, haul, might, force, drive, grind, drag, press, push, lean |
| Power | might, force, heave, impel, smash, snap, rip, blast, boom, bang, thump, thrust, explode, hoist, crumble |
| Speed | fast, lunge, thrust, jab, rap, smack, brief, flick, whip, fling, pop, dash, quick |
| Agility | nimble, move, dance, prance, brisk, alert, quick, shuffle, agile |
| Balance | block, dead, solid, firm, rooted, anchored, set, rigid, hard |

EXAMPLES OF POSITIVE SELF-STATEMENTS THAT MAY BE USED AS PART OF THE THOUGHT CONTENT OF A RACE STRATEGY.

Self-encouragement

- "You are doing great"
- "Keep achieving those goals"
- "This is the opportunity to dominate"

Effort Control

- "It may hurt but concentrate on flowing movements"
- "You have prepared for this so execute your strategy"
- "Others are hurting just as much but they do not have a strategy"

Segment Goals

- "The pace was dead-on. Maintain your stroke"
- "Your split is just what you wanted"
- "That segment improved your race time"

Positive Self-talk

- "Great work"
 - "This will be even better than planned"
 - "This feels great. You really are holding that water"
-
-

6. Psychological Intensification: **MAINTAIN CONCENTRATION CONTROL AND FOCUS**

- aim to guard against complacency, loss of control, dead spots

Theory: focused brain activity serving attentional, emotional, and memory recall functions will control sensory input.

Options:

Thinking faster

Changing content

Thinking harder

Picturing

Muttering

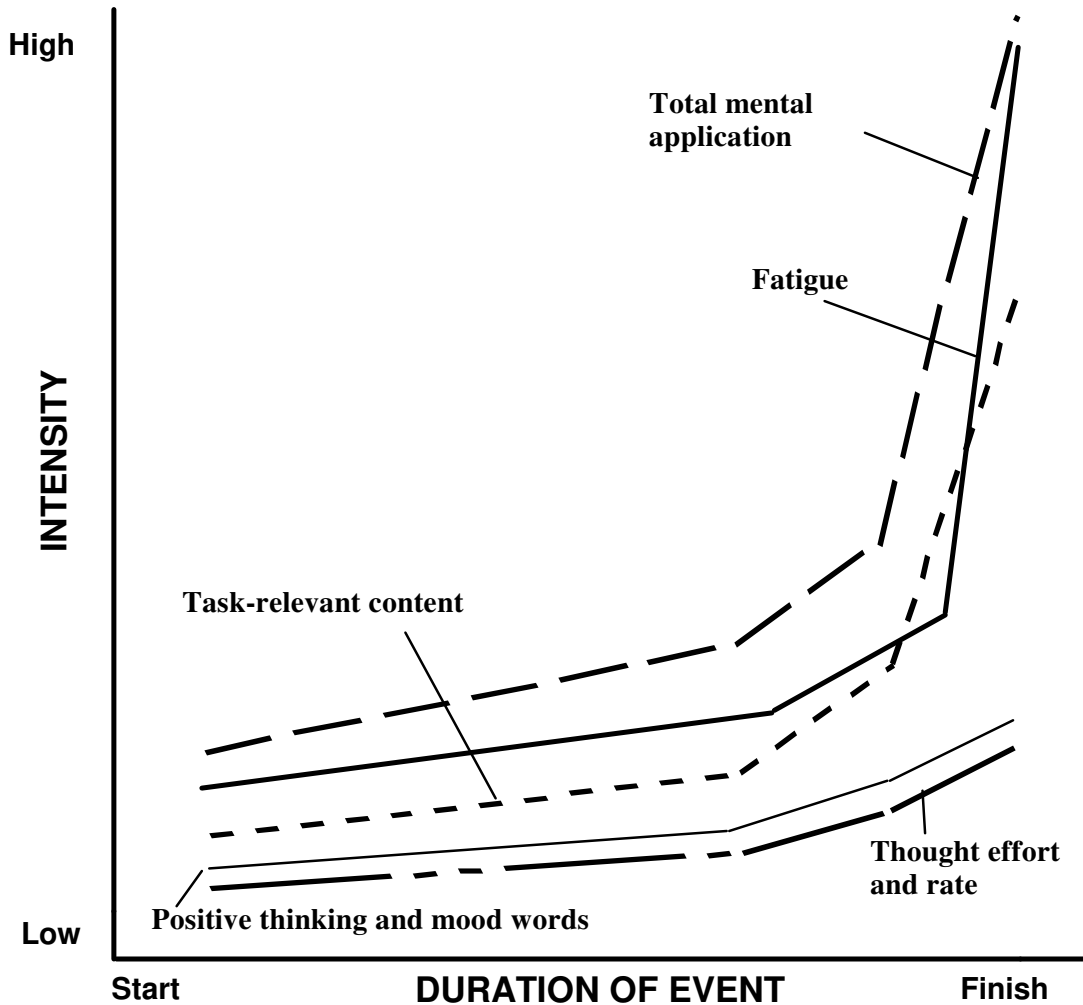
Combinations

- not related to effort

7. The Start: **INITIATE PERFORMANCE PROPERLY**

- final focus of pre-competition activity
- cognitively and physically different to other performance phases
- no need for settling-in phase if content build-up routine executed correctly

THE CONCEPT OF INTENSIFICATION



A simplified model of the psychological intensification concept, its components, and their relationships to an hypothetical fatigue curve. As fatigue increases so should the mental application components of task-relevant content, positive self-talk, mood words, and effort of thought control. Changes in intensity of mental application should always precede elevations in fatigue.

8. Debriefing: **LEARN FROM THE PERFORMANCE**

- immediately after performance
- contingent feedback most important for altering behavior
- standard procedures and forms

THE GOAL OF COMPETING IS THE PERFECT EXECUTION OF A STRATEGY

Winning is not important but performing one's best is!

Any competitive performance must be the best that can be produced. This will maximize the learning value of a race and will develop the consistent attribution of races being maximum efforts for goal attainment by using existing resources.

A heat that is less than one's best has drawbacks.

- i. Not much of value can be practiced and transferred into the semi-final or final.
- ii. It is a practice of doing less than one's best. It makes it easier to do less than one's best on other occasions, that is, it practices quitting and going easy as well as making it easier to give up in difficult competitive circumstances.
- iii. The vast change in expectations and appraisals between "*easy*" heats and "*hard*" finals does not allow adequate preparation. The "*easy*" heat does not rehearse and prepare the necessary ingredients for a maximum final performance.

If one "*saves*" in a heat then there is not much that can be transferred to the final. It becomes a completely new event. Thus, at the final there is a greater degree of uncertainty, which produces the possibility of anxiety occurring.

A heat should be an honest effort to achieve excellence. If the swimmer has trained well and sufficiently, and has the right diet, recovery between hard heats and finals should be total.

The procedure is to take the best aspects of what was done in an "*honest*" heat, correct any imperfections, and then produce the best heat aspects plus the improvements to produce an even better performance in the final.

There can be no substitution for practicing the best that one can do for learning purposes and preparing for the next performance.

6. RECOVERY AT COMPETITIONS

1. Swim continuously for 10 minutes at a rhythmical pace (equivalent to that to be used for a 3,000 m swim).
2. Replenish fluids and carbohydrates with food or drink.
3. Follow the swim down with a warm to hot shower.
4. Dress warmly and comfortably.
5. Lie down with feet elevated or up against a wall.
6. Go to a quiet area where some self-analysis of the previous swim can be undertaken. Record your impressions at this time in a log-book/journal.
7. Alternate five 10-minute periods of reclined inactivity with rhythmical activity such as walking while doing easy stretching exercises.
8. Periodically while reclined do stretching exercises.
9. Establish a time when you will start to think about and commence preparing for the next race.

AVOID

- Activities that are boisterous or likely to cause emotional outbursts.
- Getting cold.
- Remaining inactive for any extended period (>10 minutes) except in the case where some sleep might be needed.
- Participating in physical activities not associated with swimming.
- Doing too much warm-up.
- Doing too much of one thing in a warm-up.
- Attempting to do things in a warm-up that cannot be performed satisfactorily (e.g., crowded lane that prevents timed 25s).
- Persons who have had a bad swim, are talking negatively or complaining, or being with people who might be confrontational.

Concluding Remarks

Concluding directions

- Educate the swimmers about what they should do;
- Then have them write what they will do;
- Correct what they write;
- Practice the pre-race strategy at least once or twice per week.
- Educate the swimmers about race thinking;
- Have them prepare what they will think of;
- Practice the race-specific thought content during race-specific USRPT sets;
- Put the pre-race and race content to the test in a meet.
- A different race strategy for each race.
 - Much will be similar between races but segmenting will be different.
 - Pay particular attention to segment goal setting.
- Strategy practices should be twice per week.

Strategy content and technique work constitute most of the mental content of practices, that is, USRPT sets.

DIET AT COMPETITIONS

[From the *Swimming Science Journal*, *Swimming Science Bulletin* #7;
<http://rohan.sdsu.edu/dept/coachsci/swimming/>]

NSW ACADEMY OF SPORT NUTRITION GUIDELINES: PREPARATION AND RECOVERY FOR COMPETITION

Helen O'Connor, Sports Dietitian, NSW Academy of Sport

[Reprinted with the kind permission of the author from the *New South Wales Swimmer*,
13(4), 24-25, 1996.]

THE WEEK LEADING UP TO THE EVENT

- Ensure a high-carbohydrate eating plan.
- Include more rice and pasta: they have more carbohydrate than potato.
- Include nutritious carbohydrate-based between-meal snacks (see list below).
- As your training will be tapered pre-event, you won't need to eat more!
- Eating the right balance of increased carbohydrate and less fat is the key.

THE PRE-EVENT MEAL

- Eat this meal about 2-3 hours before competition warm-up.
- This meal should top-up your blood sugar levels after the night's rest.
- The meal does not have to be large, but should fill you up for the next few hours.
- High-carbohydrate foods are the best options: e.g., bread, cereals, fruit, pasta, rice, etc.
- Ensure that the meal is low fat; this speeds up digestion.
- Eat breakfast before you get to the pool, this leaves time for the carbohydrate fuel to get in!
- Have a drink to optimize hydration: try sports drink, juice, or a liquid meal.
- Avoid the caffeine in cola drinks, coffee, chocolate, and tea - it is dehydrating.
- If you feel too nervous to eat, try a liquid meal (see later in this article).
- Practice with your pre-event meal prior to nationals to fine tune this eating strategy.

AFTER THE WARM-UP - RECOVER FOR THE HEATS

- After the warm-up, replace fluids immediately (leave your drink bottle at pool side).
- Sports drinks are optimal as they replace fluids and carbohydrate simultaneously.
- If there is less than 1 hour between races, just keep to fluid replacement.
- If there is more than 1 hour between the warm-up and your first heat, try to eat a little.
- See the "*top-up between event*" ideas later in this article.
- The best approach is to eat a little and often during the day.
- Seize the opportunity to eat a little "top-up" when you can.
- Eating and drinking a little and often will help to keep you "firing" all day.
- Eating too much at once can make you feel heavy and lethargic.
- Little top-ups are best - they also prevent you getting really hungry.

DRINKING AND EATING BETWEEN EVENTS

- Try to eat in longer breaks (longer than 1 hour between races).
- In shorter breaks, use a sports drink or water to replace fluids.
- The indoor pool environment is humid and dehydrating.
- Adequate fluids are essential all day to keep your blood and energy pumping.
- If there is a longer break (a few hours) through the day, use it to eat a bit more.
- Take your own high performance foods and drinks with you (don't rely on the canteen).
- A cold pack and thermos helps to keep foods and drinks fresh and pleasant.
- Record your food and fluid intake to keep count of when you last ate and drank.
- To monitor hydration check that your urine output is regular and "looks clear."
- Monitoring body-weight change over the day is another way to check hydration.

RECOVERY AFTER A HARD DAY'S COMPETITION

- Have something to drink and eat immediately after your last swim.
- Avoid the "fast food" chains on the way home - their high fat foods will delay recovery.
- Have some high-carbohydrate food prepared so you can eat as soon as you arrive home.
- If possible take a thermos with a meal inside so you can eat even earlier.
- Check your body weight to ensure you are re-hydrated.

TOP-UP SNACKS BETWEEN EVENTS (breaks of 1-2 hours)

- Snack fruits (small cans of fruit) or canned baby fruits.
- Bananas.
- Fruit that is peeled and cut up (easier to eat this way).
- Plain bread rolls (white bread may be less heavy) - try pita bread!
- Fruit buns (e.g., hot cross buns) or raisin bread.
- Plain or fruit scones.
- Home-made low-fat fruit muffins.
- Pikelets (packet variety okay).
- Rice cakes (you can top them with honey, jam, or banana).
- Boiled or milky or creamed rice (use reduced-fat milk).
- Rice pudding or bread pudding (use reduced-fat milk).
- Instant noodles (varieties that do not contain oil or the flavor sachet).
- Jam or honey sandwiches.
- Plain boiled pasta with a little tomato sauce.
- Low-fat breakfast or plain muesli bar.
- Fruit fingers (see baby food selection at supermarket).
- Plain crackers (not high-fat types).
- "Petit Miam" yogurts.
- Small amount of reduced-fat yogurts.
- Carbo gels (ask at sport stores).
- Power bars (try gyms or sport stores).

[**Note:** Choose smaller amounts if you only have just over 1 hour. In longer breaks you can afford to eat a little more. Items in bold might be better for middle length breaks as they are smaller and perhaps easier to digest.]

IF YOU PREFER TO USE LIQUID MEALS TRY

- Sustagen Sport (made with water or skim milk).
- Exceed Sports Meal.
- Sports drink (e.g., fluid-replacement kind).
- High-carbo drink (e.g., lucozade).
- Your own fruit smoothie made with reduced-fat milk.

BEST FLUID REPLACES OVER THE DAY

- Sports drink (contain carbohydrate to boost energy as well).
- Water

IN LONGER BREAKS OR AFTER THE COMPETITION

- Sandwiches with low-fat fillings (avoid butter and too much salad).
- Pasta or rice with tomato pasta sauce (a little chicken or very lean meat in sauce is okay).

REMEMBER - Practice with these strategies prior to the championships to fine-tune your eating for competition. Everyone is different and various combinations of the above tailored to your individual needs will work best.

Bon Appetite!

Helen O'Connor (Sports Dietitian)

REFERENCES

- Rushall, B. S. (2003). *Mental skills training for sports*. Sports Science Associates, 4225 Orchard Drive, Spring Valley, California 91977. This is an e-book. [<http://members.cox.net/brushall/mskills/index.htm>].
- Rushall, B. S. (1995). *Personal best: a swimmer's handbook for racing excellence*. Sports Science Associates, 4225 Orchard Drive, Spring Valley, California 91977. This is an e-book. [<http://members.cox.net/brushall/personal/index.htm>].
- Rushall, B. S. (2016). Sprint-USRPT: Training for 50-m races. *Swimming Science Bulletin*, 56. [<http://coachsci.sdsu.edu/swim/bullets/56USRPT50m.pdf>]

Example : A strategy for a 100-meters crawl stroke race.

STRATEGY PLANNING SHEET

| Primary Behaviors | Coping Behaviors | Outcomes |
|---|--|--|
| <p><i>AT BLOCKS</i></p> <p><i>"Fast, fast, fast" - kill that water</i></p> <p><i>Look at dive hole</i></p> <p><i>Feel the water on forearms</i></p> <p><i>Jump, stretch, and kill</i></p> | <p><i>Whirl arms as fast as possible</i></p> <p><i>Big leg drive to get out</i></p> <p><i>Lock arms in the water</i></p> <p><i>Violently active</i></p> | <p><i>Feel very quick</i></p> <p><i>Focus on dive</i></p> <p><i>Main focus</i></p> <p><i>Powered-up</i></p> |
| <p><i>GOALS: Fired up - just under control</i></p> <p><i>THE DIVE</i></p> <p><i>"Explode" long and out</i></p> <p><i>Maximize streamline - tight arms and toes</i></p> <p><i>Kick for doubles super fast speed</i></p> <p><i>Pull to surface - mighty heave</i></p> <p><i>GOALS: Go far, come up swimming fast</i></p> | <p><i>Focus on the water</i></p> <p><i>Reach for the pool end</i></p> <p><i>Spear into the water</i></p> <p><i>Drive forward with kicks</i></p> <p><i>Look for surface</i></p> | <p><i>Dive distance</i></p> <p><i>Streamline</i></p> <p><i>Keep dive speed</i></p> <p><i>Burst to surface</i></p> <p><i>Streamline</i></p> |

STRATEGY PLANNING SHEET

| Primary Behaviors | Coping Behaviors | Outcomes |
|--|--|--|
| <p>SWIM 35 METERS</p> <p><i>Lock those arms; balanced power</i></p> <p><i>"Crunch, crunch, push, push"</i></p> <p><i>Smooth and relentless length</i> <i>speed long</i></p> <p><i>Head down, butt up, firm</i></p> <p><i>Keep rate going, early grab</i></p> <p>GOALS: <i>Streamlined and fast</i></p> | <p><i>See arms doing the same</i></p> <p><i>Long stroke</i></p> <p><i>Immediately press back</i></p> | <p><i>Balanced and fast</i></p> <p><i>Length</i></p> <p><i>Constant balance</i></p> <p><i>Keep flat and streamline</i></p> <p><i>Speed</i></p> <p><i>Propelling efficiency</i></p> |
| <p>TURN</p> <p><i>Rate and kick like crazy</i></p> <p><i>Rotate, look to end</i></p> <p><i>Drive off wall in shortest time possible</i></p> <p><i>Deep, streamline, 10 double-kicks</i></p> <p><i>Pull to surface as if last stroke</i></p> <p>GOALS: <i>Fastest turn, gain on others</i></p> | <p><i>Power to the wall</i></p> <p><i>Spin over</i></p> <p><i>Blast</i></p> <p><i>Very fast kicks</i></p> <p><i>Look for surface</i></p> | <p><i>Speed up</i></p> <p><i>Rotate</i></p> <p><i>Explode</i></p> <p><i>Keep speed</i></p> <p><i>Come up swimming</i></p> <p><i>Keep speed</i></p> |

STRATEGY PLANNING SHEET

| Primary Behaviors | Coping Behaviors | Outcomes |
|--|---|--|
| <p>SWIM 35 METERS</p> <p><i>Lock forearms, bilateral breathe</i> <i>Accelerate arm pulls</i> <i>Go for length for 4, rate for 4</i> <i>Clear mind, shout out your words</i> <i>Explode from contact, back push</i></p> <p>GOALS: <i>Make a move, speed through technique</i></p> <p>10 METERS FINISH</p> <p><i>Suck in a big one then head down</i> <i>Explode arms directly backward</i> <i>Propeller stroke, "whirl,"</i></p> <p><i>Reach finger tips, roll on side</i></p> <p>GOALS: <i>Not one stroke left, fastest finish</i></p> <p><i>Come up for air: How did it feel?</i> <i>Now look for time</i></p> <p>GOALS: <i>Best execution possible, everything done as planned</i></p> | <p><i>Head down, swim blind</i> <i>Drive forearms back</i> <i>"Whirl, whirl, drive, drive"</i> <i>Get excited</i> <i>Up a notch</i></p> <p><i>Streamline</i> <i>Drive long back</i> <i>"Rate, rate, rate"</i></p> <p><i>Bang the finish pad</i></p> | <p><i>Swim flat</i> <i>Speed</i> <i>Speed</i> <i>Intensify</i> <i>Prepare for finish</i></p> <p><i>Initiate</i> <i>Length</i> <i>Faster underwater</i> <i>Reach</i></p> |

STRATEGY PLANNING SHEET

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| Primary Behaviors | Coping Behaviors | Outcomes |
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