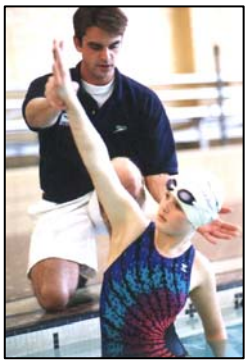
Fluid Mechanics

Presents

The Swimming Machine
TQ200 Technique Workbook

Version 1.3



Getting the most out of your TQ200 Technique Workbook

To be a contender in the world of competitive swimming you need high speed ideas, clear communication and to rapidly comprehend and apply effective principles.

The TQ200 Technique Workbook employs a user friendly systematic solution called “Vision Works” to help you understand swimming from a new perspective.

This booklet will increase your understanding of your TQ200 Technique Workbook to help you get the maximum benefit.

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The **Reference Source**

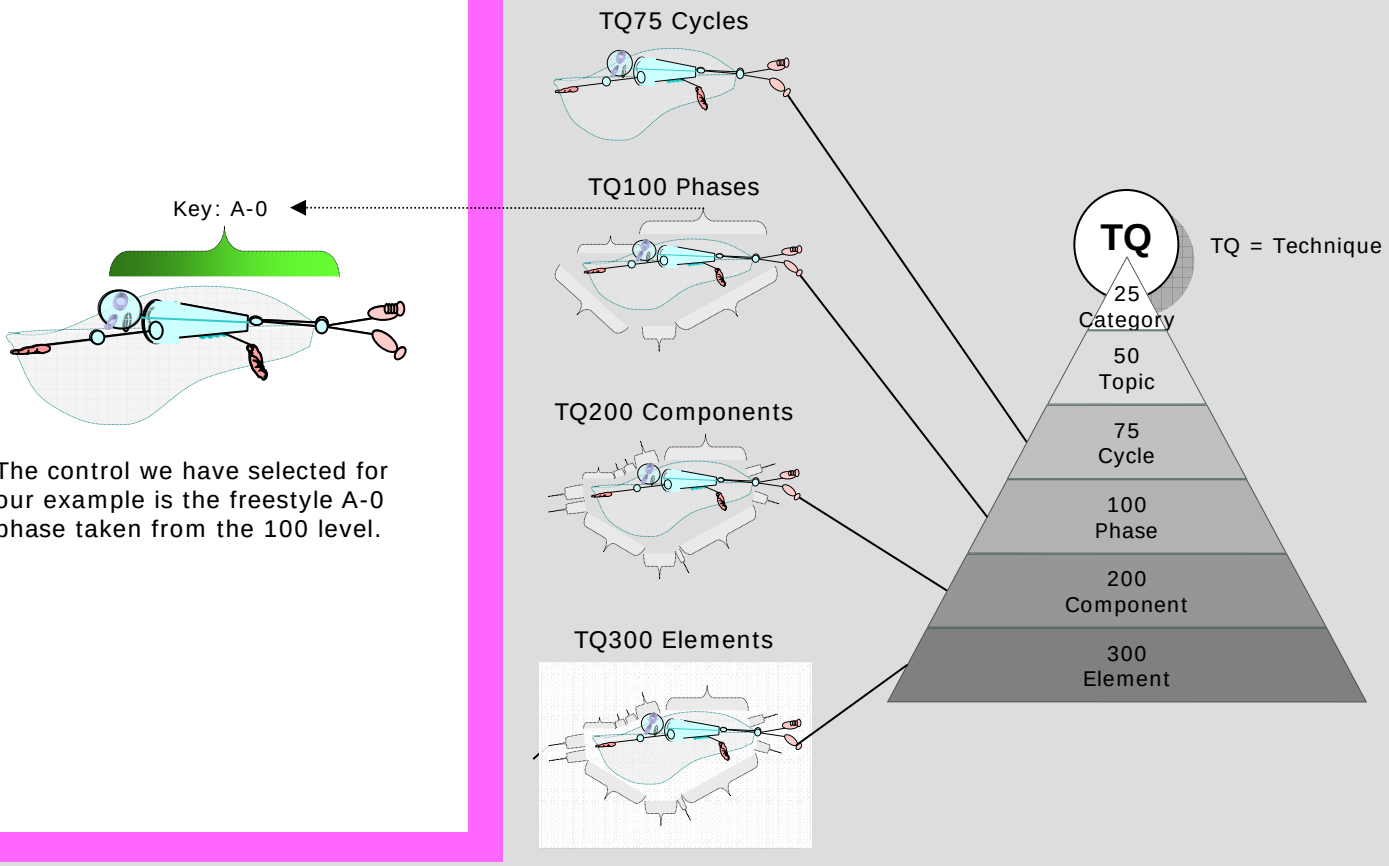
for competitive swimmers, coaches, teams, parents and the professionals who advise them ... since 1987

This booklet will help you understand how to use the “Vision Works” system to:

1.Communicate technique
2.Comprehend technique
3.Apply technique

Vision Works

The Vision Works system breaks a topic into levels to determine the degree of detail that is being discussed. Each level has a unique name for its controls as shown in the pyramid below.



The control we have selected for our example is the freestyle A-0 phase taken from the 100 level.

The Control’s Table of Properties

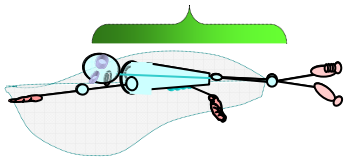
The “Table of Properties” is used to thoroughly understand each control. This table is broken into 3 major sections.

Communication (Structure)						Comprehension (Integration)								
-1- Key	-2- Name	-3- Common Terminology	Definition			-7- Environment (Hydro Dynamics)	-8- Purpose (Force)					Synergy (Frequency/Timing)			
			-4- Visual	-5- Verbal	-6- Physical		Purple	Green	Yellow	Pink	Blue	-9- Arm	-10- Head	-11- Torso	-12- Leg
A-0	Above Surface Recovery	Out of the water		< the arm attempts to exit the water > just before the hand enters the water.	Double-take*	The arm exits the tunnel of water outlet, passing thru surface tension into the tunnel of air, and stops just prior to contacting surface tension for re-entry.	3	8	2	3	-1	A-2	H-1	T-0B Silent	Dependent on frequency

Application

Drills	Fingertip Drag, Double Touch, Palm View

Communication

1. Key	2. Name	3. Common Terminology	Definition		
			4. Visual	5. Verbal	6. Physical
A-0	Above Surface Recovery	Out of the water		< the arm attempts to exit the water > just before the hand enters the water.	Perform A-0 twice per arm cycle to identify A-0 phase.

1. Key
Begin by learning the Key to the control. Controls are sequentially ordered by the Key (A-0, A-1, A-2…).

Note: Some topics do not require a specified control, therefore you will encounter topics with selected Keys that are absent.

2. Name
Next focus on the Name of the control. Although generic, the Name provides limited insight into the action of the control.

3. Common Terminology
Now relate the control to its Common Terminology. This is terminology that is typically used by the swimming community to describe a control, such as: "when your hand is out of the water."

4. Visual Definition
Review the Visual Definition provided by our cartoon character, Liquid Lou.

5. Verbal Definition
Create a Verbal Definition by converting the visual definition *accurately* into words.

6. Physical Definition
Perform a Physical Definition by converting your verbal definition *precisely* into action.

"Words are powerful tools for your mind."

Robert Kyosaki, author, "Retire Young Retire Rich"

"A picture is worth a thousand words"

Defining Controls Accurately

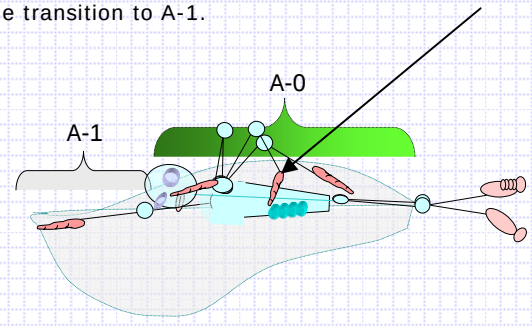
The importance of details within the illustrations and the specific location of each control is critical, and cannot be too greatly emphasized.

Consider it as though you have a stop action camera focusing on the sequential controls in each cycle, phase and component of a topic.

Notice the point at which the control begins and where it ends and then transitions to the next control. Be sure to study Liquid Lou and compare the relative location of his body parts such as his hands, elbows, head, shoulders, torso, abs, hips, knees, ankles, feet, etc.

In this diagram notice where A-0 begins, how long in duration it is held, and the transition to A-1.

Note the change in angle of the forearm.



Observe the location of the hand in relation to the elbow, head and shoulder throughout the line of movement.

Comprehension

7. Environment (Hydro Dynamics)	8. Purpose					Synergy (Frequency/Timing)			
	Purple	Green	Yellow	Pink	Blue	9. Arm	10. Head	11. Torso	12. Leg
The arm is above the surface and is preparing for A-1, the below surface recovery phase.	3	8	2	3	-1	A-2	H-1	T-0B Silent	Dependent on frequency

7. Environment

Understanding your Environment is vital to success. Environment provides the rationale for selection of effective motions relative to your surroundings". Envision the article concerning Hydro Dynamics, located in the prelude of your workbook, to clarify specific water formations and their relationship to each control.

8. Purpose

The Purpose describes the intent behind using a control by answering the question of "why motions are made". Each control is comprised of four color categories which designate a unique purpose. The colors are differentiated in your workbook by a distinguishing pattern.

9-12. Synergy

Synergy is the combination or coordination of multiple controls.

- **Frequency**
  Frequency is utilized on the 75 level to explain the ratio of cycles. For instance if you are describing a breathing frequency of every other stroke in the butterfly the ratio would be 2 arm cycles to 1 head cycle or 2-1. However, a ratio of 1 arm cycle to 2 leg cycles, 1-2, would accurately describe a 2 beat kick frequency.

- **Timing**
  Timing describes the relationship of the control to its counterparts on the 100 and 200 levels.

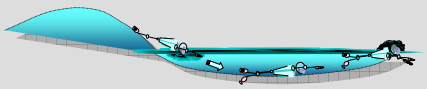
Application

Drills	Fingertip Drag, Double Touch, Palm View

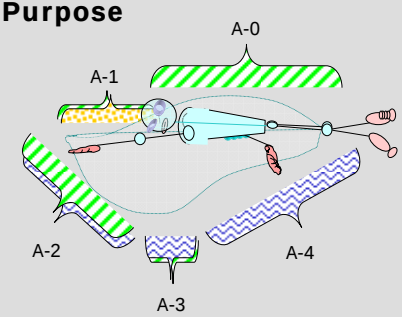
Drills

Drills are tools we use to reinforce what a swimmers already knows. In other words they are employed to reinforce controls that a swimmer understands. The repetitive nature of drills help to acclimate the swimmer to controls and build muscle memory. They should not be utilized for instruction of new ideas. Therefore it is not recommended to apply drills until the swimmer has a clear understanding of a control.

Environment

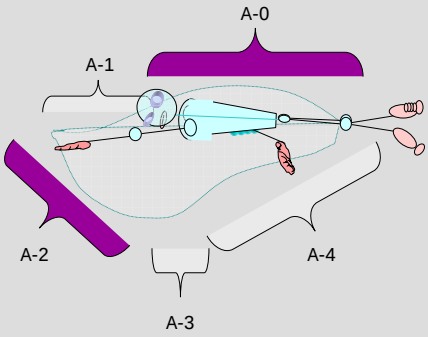


Purpose



Synergy - Timing

The diagram below is located on the 100 level. It shows the generally accepted timing in A-0 of one arm as it matches A-2 of the other arm. The syntax for this expression is A-0|A-2.



Congratulations! You are now ready to use your TQ200 Technique Workbook to effectively communicate, comprehend and apply your high speed ideas. Good luck in the pool!

If you have questions or we can be of further assistance please feel welcome to contact us!

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