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**Is It Possible To Teach
Breaststroke/Survival Kick
To Swimmers At A Young Age**

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1. THE HISTORY OF BREASTSTROKE

Breaststroke is often used as a slow strengthening stroke for long distance swimming, or, swimming in open water or waves. Breaststroke has roots traceable to biblical times. In 1977, Ohio State Doctoral Dissertation Titles: The History of Developmental Mens Intercollegiate Swimming to USA from 1897 – 1970, D F Robertson stated that swimming some form of breaststroke was used by the Hebrews, this may be inferred from the following passage from Isiah in the Bible as follows, “And swimmeth spreadeth forth his hands to swim”. (4th April 2011).

The history of breaststroke goes back as far to the Stone Ages, as for example, pictures in the Cave of Swimmers near Wadi Sora in the South Western part of Egypt near Lybia. The leg action of the breaststroke may have originated by imitating the swimming action. Depictions of a variant of breaststroke are found in Babylonian bas-reliefs and Assyrian wall drawings.

In 1538, Nicholas Wyaman, a German Professor of Languages wrote the first swimming book titled, Colymbetes. His goal was not to promote exercise, but rather to reduce the dangers of drowning, none the less the book contained a good methodical approach to learning breaststroke. In 1696, the French author Melchisedech Thevenot wrote The Art of Swimming, describing a breaststroke very similar to the modern breaststroke performed today. Benjamin Franklin even read the book, and this helped popularize the techniques, including the use of swimming aids such as, air filled cow bladders, reed bundles and cork belts.

In the pre Olympic era, competitive swimming in Europe started around 1800, mostly using breaststroke. A water shed event was a swimming event in 1844, in London, notable for the participation of some Native Americans. The British used racing breaststroke until 1873.

The Cave of Swimmers

Key Dates

The paintings in the Cave of Swimmers are thought to have been created as long as 10,000 years ago, during the last Ice Age. It was located in 1932.

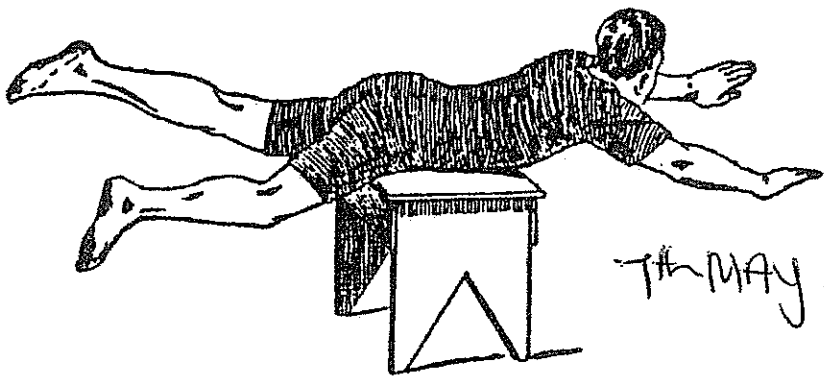


Figure 1.1 In the 19th century, breaststroke drills were weird and wonderful. From Dalton 1899.

Such discussions on the most efficient use of the legs in the breaststroke kick marked the beginning of technical thinking and a growing interest in improving propulsion. Understanding the positive effect that could be achieved by a slight change of technique was (and is) significant; this ability later was to prove an important characteristic of a capable coach.

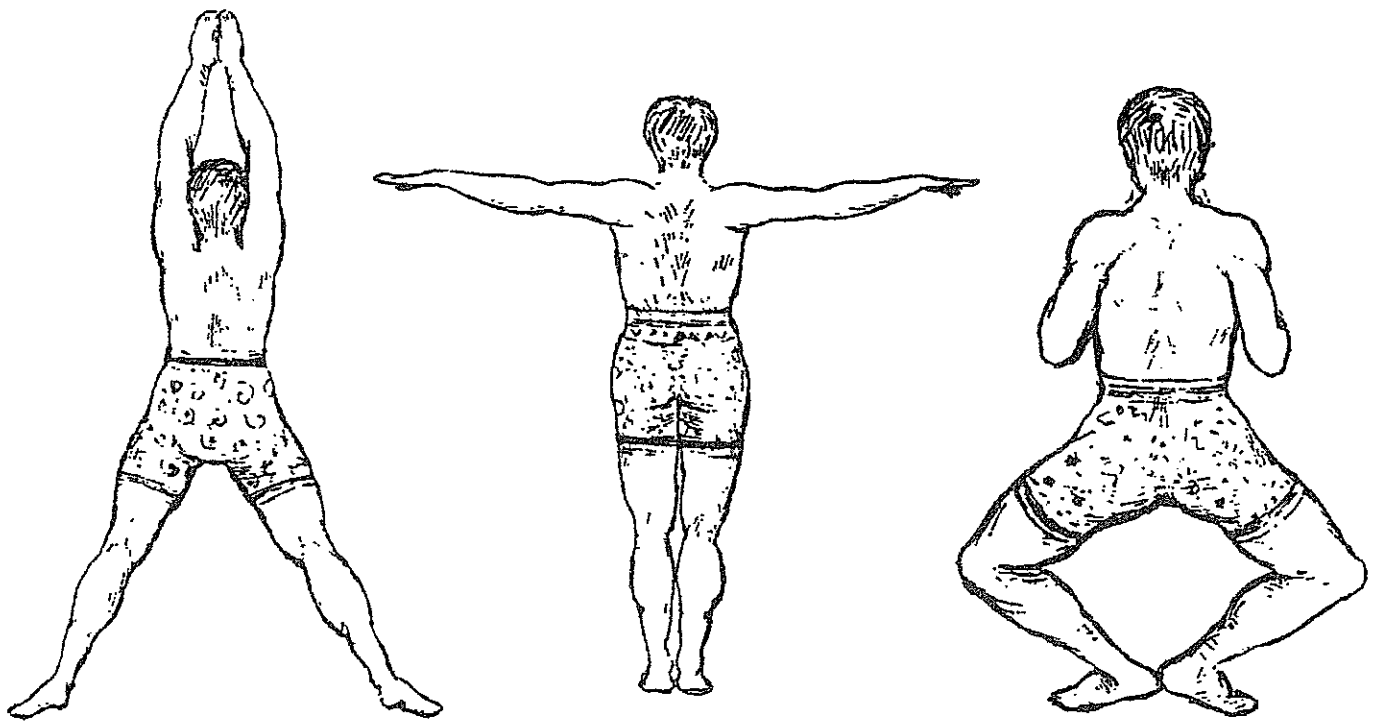


Figure 1.2 The wedge kick style of breaststroke used in the 19th century. From Wilson 1883.

Charles Steedman (1867) was probably the first to caution against drawing the knees forward under the body when swimming breaststroke (figure 1.3). He said that this negative or retarding action caused resistance and retarded the progress of the swimmer. He said that by "bending the knees laterally, rather than under the body the draught of the latter is decreased, or, in other words, the whole of the body remains nearer the surface of the water, and consequently the resistance to its progress is much less" (p. 93).

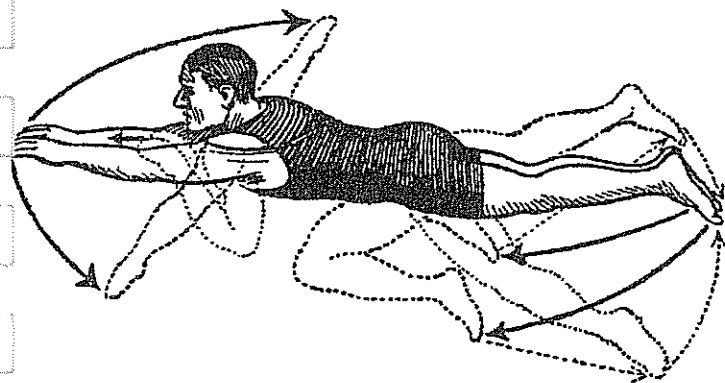
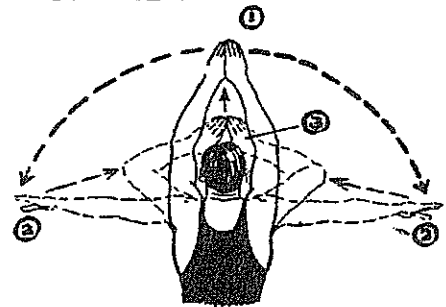


Figure 1.3 Breaststroke in the 19th century. Pulling with straight arms and drawing the knees under the body were common faults. From Sachs 1912.

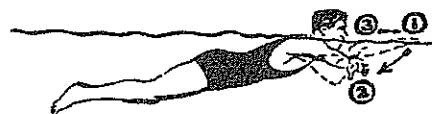
William Wilson (1883) said that "another mistaken idea is that the propelling part of the kick is obtained from the soles of the feet; these mis-

takes to a great extent account for the too often unsuccessful efforts made by those who wish to teach themselves." Wilson said that the major propulsion should be obtained from the leg kick because it is "easier to push the body forward than to pull it through or along. The legs are stronger than the arms, therefore it is economical to obtain all the power possible from the lower limbs" (p. 35). He added that learners tended to use the arms with all the power possible, and thus pulled the body along (figure 1.4).

TOP VIEW



ARM ACTION
OF BREAST STROKE



SIDE VIEW

Figure 1.4 Breaststroke arm action in the 1920s. From Bachrach 1924.

In 1875, Captain Matthew Webb was the first man to swim the English Channel between England and France. The technique he used was breaststroke, and swam 21.26 miles, 31.21 kilometers in 21 hours and 45 minutes.

The Summer Olympics of 1904, in St Louis, were the first Olympics that featured a separated breaststroke competition over a distance of 440 yards, 402 meters. These games differentiated breaststroke, backstroke and freestyle. Later in Europe in the Middle Ages swimming became unpopular because people believed the water helped spread the Plague, and other common epidemics. When people swam they preferred a form of breaststroke that kept their faces out of the water. Not until the second half of the century was the prejudice against swimming largely overcome.

In the 16th Century the breaststroke was performed with the head held up high, and, completely out of the water. Instead of using a frog kick, propulsion was applied with insteps not the soles of the feet. In the 19th Century breaststroke swimmers adopted a frog kick in which the ankles were dorsi-flexed, and propulsion was developed by pressing the soles of the feet against the water. (4th April 2011)

Breaststroke became a separate event in the Olympics when crawl was so much quicker. Breaststroke was swum in the traditional manner on the breast with the hands projected directly out in front of the face, and with the hands pulled wide and around. In 1930, some swimmers discovered that there was nothing in the rules to prevent them digging into the water with a double overhead arm stroke, this was the first and most controversial change to racing breaststroke.

"No one can swim the Channel," said the experts, but to Captain Webb the impossible only took a little longer!

FIRST TO SWIM THE CHANNEL

ON the 24th August, 1875, a small crowd gathered at Dover, to see Captain Matthew Webb begin an attempt to swim from England to France, a feat thought to be impossible.



I TELL YOU DOCTOR WILLOUGHBY, THIS IDEA OF SWIMMING THE CHANNEL IS QUITE ABSURD. THE HUMAN BODY CANNOT STAND THE STRAIN!

LATER.

THE CAPTAIN IS SWIMMING STRONGLY.

AYE, LAD, BUT HE'S GOT A LONG, LONG WAY TO GO.

THE HOT SOUP IS PUTTING NEW LIFE INTO ME.

AYE, CAPTAIN AN' THERE'S PIPING HOT COFFEE TO FOLLOW. WITH LUCK, WE'LL SIGHT LAND TOMORROW.

QUITE, PROFESSOR! THE HUMAN FRAME IS NOT CONSTRUCTED FOR SUCH A FEAT!

A JELLYFISH! AAH! I'VE BEEN STUNG!

WEBB IGNORED THE PAIN OF THE STING AND SWAM ON.

THE CAPTAIN IS TIRING. ANOTHER CHAP SWIMMING ALONGSIDE WILL ENCOURAGE HIM.

NO SIGN OF LAND, YET! BETTER GET READY!

LAND AHEAD!

JUST AS WELL, I DON'T THINK I CAN LAST OUT MUCH LONGER!

The weather worsened, but Webb stubbornly plodded on. Encouraged by the shelter of a small boat which put out from Calais, Webb made his last great effort and, finally, at 10.40 a.m., he tottered ashore—the first man to swim the Channel.

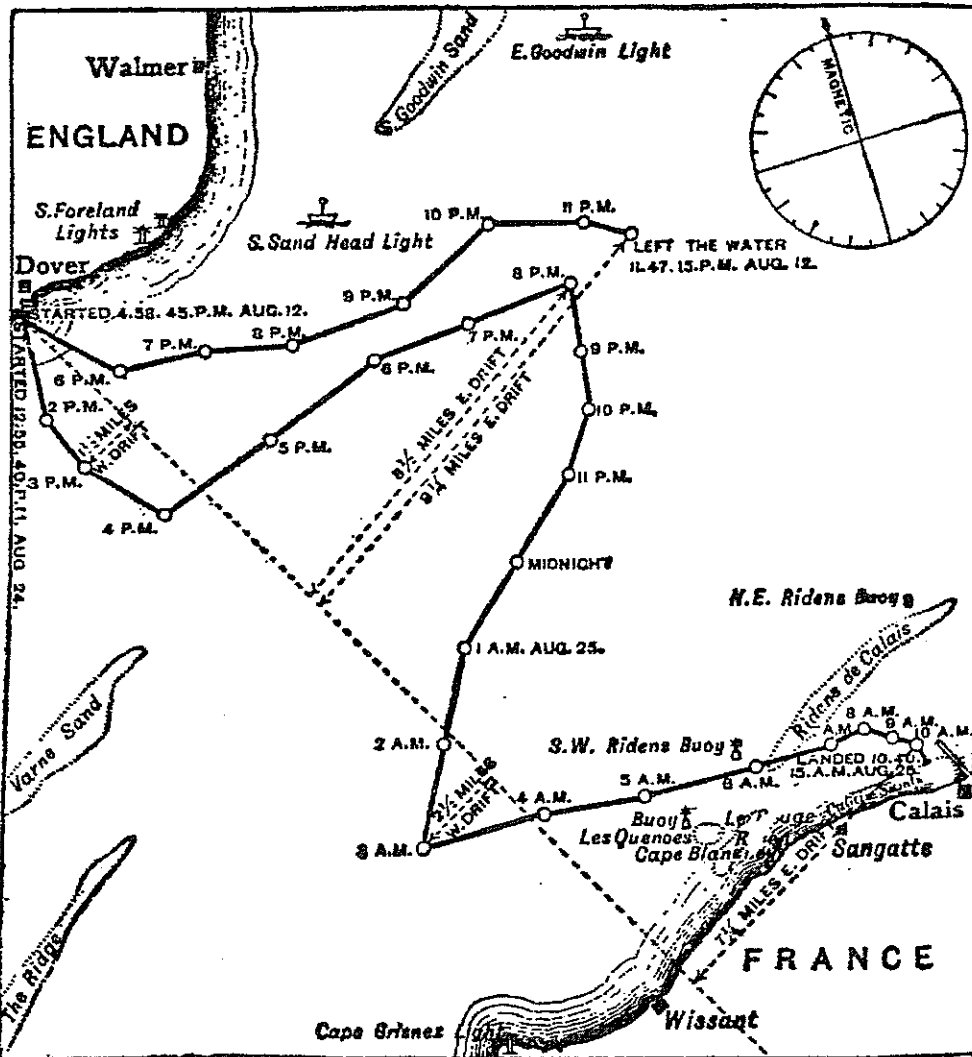
The doctors had said it was impossible, but Captain Webb had done the historic crossing in 21 hours 40 minutes of dogged battle against the waves.

Captain Matthew Webb

A swimming history wouldn't be complete without mention of the legendary Webb.

Captain Webb was the first person to swim the English Channel and this was arguably the most outstanding swimming achievement ever. Born in 1848, Webb earned his place in history when he stepped onto the beach at Calais on 25 August 1875 after 21 hours and

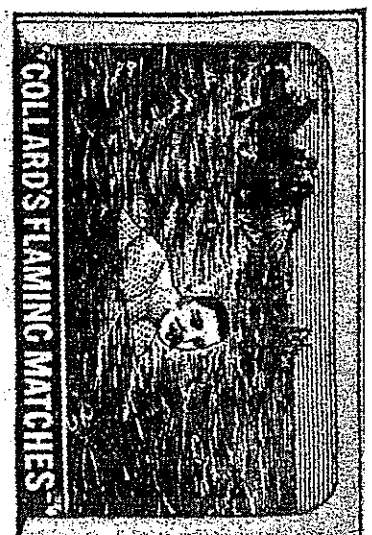
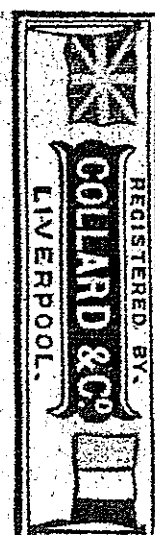
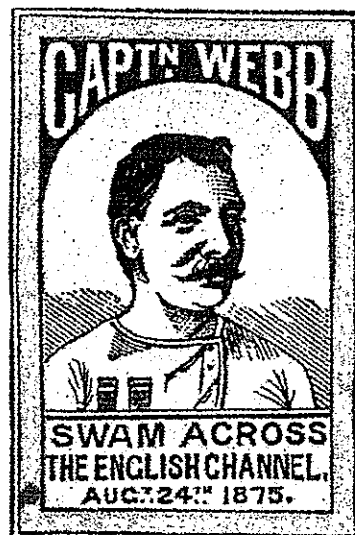
45 minutes. It wasn't until 1923 that this feat was achieved again. Webb left from Admiralty Pier in Dover at 12.55 on 24 August, 3¼ hours before high water on a 15 foot 10 inch tide. Webb actually swam 39½ miles because of the tides and averaged twenty arm cycles a minute on breaststroke.



Webb's route compared to the shortest point between England and France (see dotted line). The incomplete line shows a previously unsuccessful attempt. (Map appeared in 'Field' and was reproduced in the 'Badminton Book of Swimming', 1894.)

Webb's achievement made him nationally famous and his feat was commemorated in 'The Hornet' boys' comic.

... and on the matchbox beneath. (Reproduced from 'Captain Webb' by Margaret Jarvis, David & Charles.)



There have been arguments on whether a swimmer ducking his head into his own bow wave is swimming under water, and how perfect the arm and leg movement should be, and whether the arms can be thrown out the water in recovery.

The Coach of Iowa University USA, Dave Armbruster, experimented with both arms recovering overwater simultaneously, or, butterfly arms as we recognize it today. One of his swimmers, Jack Seige, moved from swimming with butterfly arms and breaststroke legs to dolphin legs. Breaststroke competitors stuck to either traditional breaststroke, or, butterfly arms and breaststroke legs. The latter was so successful, that swimmers employing this stroke continued to dominate the competition. Eventually something had to be done after the Helsinki Olympics, butterfly and breaststroke were separated as racing strokes. 1956 saw the first Olympic butterfly race.

Meanwhile breaststroke competitors exploited another loop hole in the rules, as the Japanese in particular, swam for long distances under water. Obviously this distorted the rules, as it was much quicker to swim under water. Breaststroke became known as the 'silent stroke' as a result. In 1956, the rules were changed so that only one arm pull and one leg pull were permitted at the start of each length, so underwater swimming faded away.

Breaststroke underwent another change when Dr James Councilman and his pupil, Chet Jastremski, developed a wholesale rejig of the strokes timing. Jastremski took the breath after the beginning of the arm pull, instead of the beginning of the head lift. This non glide high revving stroke required the shoulders to keep low on the surface and the leg kick to be much narrower in its circular and backwards projection.

Woman's breaststroke since the 1970s has been increasingly dominated by the Russians; the Americans have remained a force in men's swimming, but their success has been intercepted by various European countries.

For a time breaststroke was swum quite flat, and on the surface, and then in the 1970's it was swum with more rise and fall. The British traditional method of breaststroke continued to dominate at the Olympics, as shown further on with medals, but all of them having completely different variations of the stroke, so it has made it difficult to identify a British style of breaststroke. (7th May 2011)

While the British raced using breaststroke, Native Americans swam a variant front crawl which was used by America, West Africa and some Pacific Islands for generations. The Americans easily beat the British; Flying Gull won the medal, second to another, Tobacco. Their stroke was described as making a motion with the arms like a windmill, and kicking the legs up and down. This produced a considerable amount of splashing, it was deemed barbaric and un-European to the British gentlemen who preferred to keep their heads above the water. Subsequently, the British continued to swim breaststroke only until 1873.

6. BASIC PSYCHOLOGICAL CONSIDERATION

Water is a wonderful medium for a family environment, and sound physical activity. Introduction to the water at an early age is a valuable basis for the formal swimming instructions taught as a child grows older. Children and adults alike should possess at least the ability of propulsion, plus other additional skill in water. This being, so that if needed, they can call upon a range of simple survival skills. For example, sculling survival kick and having the ability to rotate and switch from one ear to another.

Confidence and feeling at ease in the water is important, for, the **EARLY AQUATIC TRAINING AND PLAY** will be beneficial by developing co-ordination, and respiratory capabilities. There are four essential components:

1. **STIMULUS**
2. **RESPONSE**
3. **REINFORCEMENT**
4. **MOTIVATION**

7. **HUMAN INFANT PUBLISHED BY COLUMBIA UNIVERSITY PRESS**
1943

Apart from the swimming reflex, a newborn infant can call on other spinal cord and hindbrain reactions such as walking, or stepping reflex.

Phase A – Reflex Swimming

The newborn infant swims when submerged in the prone position. The movements involve his total musculature, and are more rhythmical than the previously described stepping movements. McGraw also noticed the *apparent* presence of the *breathing reflex*, as ingestion of water and coughing were less common in newborns than in older infants.

(However, I have not been able to find any documented evidence that this breathing reflex actually exists, other than if it is the reaction of momentarily holding the breath caused by an involuntary spasm of the epiglottis when water comes in contact with the mouth, to thus prevent the inhalation of water in the lungs). Reflex swimming appears to be on the decline already at 30 days, and has virtually disappeared at 200 days

Phase B – Disorganised Activity

After the first month, Phase B – Disorganised Activity, appears. The rhythmicity and co-ordination of the infant's early swimming reflex begins to decline, and he tends to struggle and ingest water. McGraw describes this disorganisation as a period of transition from the reflex, to a more voluntary type of movement, reflecting the neural development from sub-cortical (lower brain centre) to cortical control (high brain centre)

Phase C – Deliberate or Voluntary Movement

This phase begins at about 12 months when independent walking develops. If the infant is submerged in water at this stage, he performs swimming movements which are fairly well organized, though less automatic than the neonatal actions. These have a more voluntary quality, as if the child were aware of his predicament, and was fighting to reach the edge of the pool. The awareness of his environment and the deliberate nature of his movements, indicate that the cortex is exercising much greater control over his activity.

McGraw then asserts that as the cortex further matures, and environmental awareness expands, these deliberate movements will be abandoned, unless there is frequent exposure to aquatic activity. The presence of the described reflexes seems to indicate how deeply locomotor activities are ingrained within the human nervous system. There is no involvement of the higher brain centres in the newborn, and there does not appear to be a connection between these reflex movements, and the infant's later voluntary movements. 04 April 2011.

8. BASIC EXERCISES

Apart from foregoing exercises, a few minutes in each lesson can spent on exercises that prepare for aquatic skills such as learning to float, e.g. holding baby on back – sing twinkle/twinkle little star.

A young baby that has learned to dive and glide under water from early infancy, will have no fear having his face submerged into the water. It is essential that we understand that aquatics for under fives must take into account a child's natural development, and this together with water confidence, water exploration, and lots of fun are very important goals to strive for, than so call proper swimming strokes. A great amount of under fives do master all strokes completely. Generally these children have good co-ordination, perhaps enhanced by their early frequent exposure to aquatic experience. It is essential that the basic movements are taught first to a young child. The dog paddle stroke is a basic movement used by our forefathers for propulsion in water. Most babies have a natural kick from early infancy more like a frog kick.

9. AQUATIC READINESS

The swimming world is changing. Strokes have changed and must be individualized to the size, strength, and experience of the learner.

Practical experience and observation in Europe and Asia suggest that strokes, other than the crawl, can be learned first. New knowledge and methods are exciting, they rejuvenate and expand aquatics. As aquatic professionals become more highly trained in such specialized areas such as, infant and preschool swimming, they are able to debunk traditional misinformation. With practice, children can begin demonstrating rudimentary swimming movements in water sometime after their first birthday. Some will be able to perform earlier, but most only at a later age.

Instead of comparing childrens' movements to an adults' stroke, it is important to show how skills change progressively, and in sequence, as without motivation, learning is slow. The use of games and equipment in the aquatic environment is a good medium to increase motivation, and learning through play.

10. EFFECTIVE COMMUNICATION

Effective communication is also a vital part in teaching breaststroke to younger children and in all swimming teaching

What the Skill Is
Learners Perception

New Skill
Have they learnt it

Clear Simple Repeat

Feedback
What they Did or Not
Needs to Change

Translation
Understanding the skill
How am I going to perform the skill

How did they do it/did it

What part of the bodies do what

The importance of effective communication is important and a vital teaching skill, as it is a necessity for passing on information to children, and breaststroke certainly is classed as the most difficult stroke to put together.

Many factors affect communication including vision, glare from sun, angle and demonstrations, hearing, use of ear plugs, and acoustics.

11. PLANNED PROGRESSION

A child must be comfortable, and at ease in the water, to move with confidence. Repetition of similar activities certainly is a great advantage, as I will demonstrate later in the children I have studied.

The following chart, Gross Motor Attributes in Early Childcare, clearly shows arm development appears at the age of four. In practice, most children will fall into this pattern. Freestyle for instance, is generally not grasped until this age or older. However quite a few children, (girls in particular), that have had wide stimulation, and experience in aquatics from infancy, will demonstrate a readiness for co-ordinated skills even younger than four. It has also been found that pupils who have older siblings, will frequently model themselves on their brother or sister, and imitate their activities.

12. GROSS MOTOR ATTRIBUTES IN EARLY CHILDHOOD

Approximate Time

<u>Of Appearance</u>	<u>Selected Behaviours</u>
-----------------------------	-----------------------------------

1 Year

- Walking unaided
- A rapid 'running like' walk
- Will step off low objects

2 Years

- Walking rhythm stabilizes and becomes even
- Jumps crudely with two foot take off
- Will throw small ball 4 – 5 feet (1.2 – 1.5 metres)
- True running appears
- Can walk sideward and backward

3 Years

- Can walk a line, heel to toe, 10 feet (3 metres)
- Can hop from two to three steps, on preferred foot
- Will walk balance beam for short distances
- Can throw a ball about 10 feet (3 metres)

4 Years

- Running with good form, **leg-arm co-ordination apparent**
- Can walk a line around periphery of a circle
- Skillful jumping is apparent
- Can walk balance beam

5 Years

- Can broad jump from 2 – 3 feet (1 – 1.5 metres)
- Can hop 50 feet (15 metres) in about 11 seconds
- Can balance on one foot for 4 – 6 seconds
- Can catch large playground ball bounced to them

13. NATURAL SWIMMING REFLEXES

Most infant reflexes are outgrown after 6 months, unless they are sustained by regular active stimulation.

The first step is to recognize babies first baby reflexes. The different positions are used to stimulate strength them, and help baby to produce them as movements. The more relaxed mother or you are, and the earlier you start, the stronger the babys' reflexes are likely to be. Although it would take one year, or so, for the baby to imitate particular movement/directly month by month they would register what you do in the water, and produce a gradually more refined imitation. It is easier to swim with babies than teach them to swim.

14. AMPHIBIAN REFLEX

This is the newborns most basic reflex, and the water causes the legs and arms and torso to move in spurs, that can propel the newborn through the water for a short distance unaided. Reinforcing this reflex with practice in the pool between 4 and 8 months, helps the baby to make the transition from involuntary movement to voluntary.

15. REFLEXES AFTER AMPHIBIAN

Swim Reflexes – These are two reflexes that can be stimulated when in aquatic environment.

Laryngeal (Gag) Reflex

- Glottis and epiglottis close over preventing water from entering throat
- Replaced eventually by conscious breathing

Mammoth Dive Reflex (Remains for Life)

- Body drops heart rate
- Constricts the flow of blood for extremities
- Helps body to conserve energy when under water

16.3 KEY SWIMMING STYLES

- Visual
- Auditory
- Kinesthetic

Visual

This is using clear simple correct demonstration of where, and if child needs correction on arms, you can still show them and demonstrate, e.g, using it by sitting and showing leg action of which I do every lesson on the side, even with toddlers. Swimmers have to believe the coach is always watching, and, evaluating and making eye contact.

Auditory

This is using simple cue words – clear and simple. Good verbalization by instruction.

I try to be always concise, clear and accurate with my instruction. With the acoustics in the pool it is really important to be clear, concise and make sure the child understands even when it is time to go, by naming them by name. Often children sit by the end wall and look blank as a result of not being able to hear, or understand. They often will repeat something different or ask what “we are meant to do”. This often is a result from the instructor not being clear, and using too bigger instruction.

Kinesthetic

This is a physical style by using action – movement – touch. By touching physical objects and learning what they can do. I have demonstrated with balls or buckets to demonstrate for safety – how they float – gravity. I have even used drawing on my board to demonstrate the position of feet for breaststroke.

By using breathing and relaxation for the children, is also another form of Kinesthetics. Development of bodies of all children are different, and development of bones – joints are quite different in all children.

Some children learn by physical activity rather than listening. Learning through acting – music also – which is easily put into my lessons, as we sing when on our back, and they will remember an exercise or skill by going back to their minds to what their body was doing.

17. BREASTSTROKE IDEAS

An ideal programme from aqua babies to preschool, or younger children would be, for example, set out as below:

Little Crabs 6 -12 Months

- To give confidence in water safety
- Encourage physical and social development
- Fun/Songs/Games
- Stimulation of natural movement/manipulation of legs/arms
- Breaststroke kick as well as free kick submerging

Clownfish 12 – 24 Months

- Social development
- Fun/Songs/Games
- Manipulation of natural movement
- Jumping, submerging, kicking, blowing bubbles assisted front float

Little Snapper 25 – 36 Months

- Aquatic skills depending
- Enhance water confidence
- Social development
- Manipulation of freestyle kick/breaststroke kick
- Survival kick aid with noodles board
- Assisted back kick/float front
- Confident movement in water

Preschool Levels – 3 Years

Depending on aquatic skill, confidence and level, this is a great time to introduce breaststroke legs/survival/dry land. Using mat for continued breaststroke kick/freestyle kick/backstroke kick. Using big arms for front and depending once again on development, making it fun still with the use of songs and fun activities.

Sea Urchins – 3 Years

- Submerged
- Float front and back
- Kicking with board
- Walking stroking
- Jumping/diving/head down sitting
- Breaststroke survival aided
- Front/breaststroke continuing to develop breaststroke

Little Hoki – 3 Years Upwards (Depending on Aquatic Skills)

- Freestyle fore arms
- Streamline kick front and back
- 3 metre survival kick
- Kneeling dive
- Dolphin action
- Pick up item from bottom
- Assisted back arms
- Rotation
- Introduce breaststroke co-ordination



Learning Breastroke Kick

Little Octopus

- Freestyle introduce 2 stroke breathing
- Backstroke 10 metres
- Kicking to breath
- Butterfly 10 metres
- Crouch dive
- Breathing with board
- Swimming and breathing
- Basic breaststroke
- Increasing accurate technique

18. TEACHING BREASTSTROKE TO YOUNG CHILDREN

Young children in 4 – 6 old age bracket are capable of developing a very good fundamental, technically correct, breaststroke if power and speed are de-emphasized, and, replaced by an emphasis on being calm, and working with water. www.uswimmingschools.org.swimming world 2006.

In introductory phase we incorporate jelly fish floats – children becoming aware of their balance and position in the water.

From jellyfish float position we have the swimmers raise their heads, get a breath, and re-submerge. We encourage them to wait and let their quiet body return to the surface. Each time we let them get their breath, and return their faces to the water, and begin exhaling. The pull-push sequence is one of the most difficult concepts for young children to comprehend.

We begin with the circle aspect of the pull. The word “push” helps children to understand where their hands are going in recovery phase of the stroke. In circle push drill, they will pretend to mix cookies, or pizza dough, in a bowl. These drills can be done initially from a standing position on pool side, steps of pool, shallow water, eventually progressing to face down while floating.

To help children understand the breaststroke nature of the motion, we have them lie on the pool side on their stomach facing the water, with their shoulders a little past the edge of the side, over the water. We have them pull the water back to them. In this position they are unable to take the stroke any lower than the breast area. We let the elbow bend naturally.

We occasionally have children swim with a noodle placed under their armpits, as they try to move through the water relying on their pull-push. We do not introduce breathing aspects of the stroke until swimmers connect sequences of 2 or 3 strokes with their kick. We also emphasize a streamline with the glide, with headline with the body, during the glide phase of the stroke, as more power comes into the kick. Beginning the introduction of the breaststroke kick on the back, this helps the swimmers to keep the knees in line with the shoulders and torso, and get the sequence of the feet up to the buns, and out.

Often small children hold a small kickboard on back, and practice kick on back. Sitting on the side helps keep focus on toes pointed out, and feet flat. Emphasis on toes point out. Overtime we bring it all together pull/breath/kick/glide. As the feet come together after the kick, we become streamline during the glide. Early emphasis on being quiet in the water helps to incorporate and benefit from the efficiency of the glide.

19. SAFETY IN BREASTSTROKE

Attention should be directed of the teaching of breaststroke. Breaststroke is an important stroke to teach beginner swimmers, because of the survival values. It is also one of the 4 competitive strokes, and, has a certain quality which gives swimmers a great deal of pleasure when performing it. The value of the stroke from the survival perspective is based upon:

- The fact that the limbs recover underwater
- A rest or glide phase can be developed to conserve energy
- Head may be kept clear of the water to allow for natural breathing style
- A clear view to the front is obtained

20. BREASTSTROKE PROGRESSION IN PRESCHOOLERS

Teach the kick first

- Sitting on the side watching legs – manipulation
- Legs are long together
- Legs bend together
- Legs go wide together
- Legs wide like a star
- Legs are long like a pencil when they come back together
- Lying prone in shallow water supported by hands – face out of the water

Repetition Of Movements Of Legs

- Lying supported by parent/caregiver/teacher
- Lying on large mat with legs in water
- Independent floating
- Board/Noodles
- Survival kick/noodles/feet/on back

Group Breaststroke Leg Kick On Wall

- Talk through action – lifts heels to the buns
- No knees to the stomach- duck feet
- Snap heels back and stretch
- Aim toward knees not separating further than shoulder width
- Feel pressure on feet especially the instep
- Kick accelerates in glide phase

Who Can Kick Like We Have Seen?

- Choose a demonstrator if possible
- Group have a go

Equipment Organization

- Practice lying on bench/pool deck
- Push off glide/kick/glide
- Practice with or without flotation equipment
- Correct leg action



Breastroke for Young Children

21. TEACHING BREASTSTROKE AND SURVIVAL STROKE TO YOUNGER AGE GROUP

It is important when you teach breaststroke to younger children to keep your instructions simple and clear.

Demonstrate frequently what action you would like the children to do. You can manipulate legs and arms, and, most importantly teach legs first/arms second/break these two up.

Always reinforce good practice with positive points – remember foundations skills.

Teach children breaststroke kick first and practice out of water.

When children are familiar and confident with the activities of basic skills development, more structured learning can be introduced.

DINY VAN DYE

SWIM NEW ZEALAND

"AQUATICS FOR THE VERY YOUNG"

Survival Kick for Young Children



SURVIVAL KICK FOR PRESCHOOLERS

Teaching survival kick with noodle/board bottles

- In water learn to lie on back streamline heels drop to the floor – knees stay still so body is flat
- Toes turn out and make circle – knees bent – let feet drop
- Legs streamline and repetition

SCULLING FOR PRESCHOOLERS

To develop foundation for propulsive arm movement for all strokes

- To improve feel for the water
- Stand in water – shoulder depth
- Both arms extended in front about 10 cm deep
- Hands move in (with thumbs up)
- Sweep out to just past shoulder width
- “Pull sand in” – “push sand out”
- Start slowly then faster, make whirlpools
- Practice wrist actions needed for all strokes – float on back stomach up
- Keep arms straight with hands by side - scull under hips
- Progression go feet first
- Use quick hand movement

REVISE/REPETITION FOR PRESCHOOLERS

Revise survival/basic kick/breaststroke correct (takes time)

- Increase kicks/distance
- Use board/noodles – noodles only
- Face can stay in until ready

ARMS (BREASTSTROKE)

Revise sculling

- Child on noodle under armpits
- Do little scull with out-stretched arms
- Feet still/flutter kick/dolphin kick
- Increase width of scull until arms reach V position
- Thumbs up – thumbs down
- Progression – Hands clear around ? then to mouth – Streamline arms together
- Use noodle V position no wider

BASIC CO-ORDINATED BREASTSTROKE

The pull and kick have been taught separately. If a child cannot do either the pull or kick do not put them together. Ask just to do one.

- Pull kick glide stand up
- 2x Pull kick glide stand up
- 3x Pull kick glide stand up

PULL BREATH KICK AND GLIDE

The breath is taken as the hands pull in. Head stays steady. The breaststroke rhythm allows it to move.

22. RECORDS OF WORLD SWIMMING

Breaststroke is a swimming style which the swimmer is on their chest, and, the torso does not rotate. It is the most popular recreational style due to stability, and the ability to keep the head off the water a large portion of the time. In most classes, beginners learn either first style (crawl) or backstroke, first in New Zealand.

In European countries, Asian and the United Kingdom, breaststroke and front crawl is first. In competitive swimming, breaststroke is regarded as one of the most difficult strokes requiring comparable endurance, and leg strength, to other strokes.

Included in this are records from about the world.

100 METRE BREASTROKE

GAMES	GOLD	SILVER	BRONZE
1968 Mexico City	Don McKenzie (USA)	Vladimir Kosinsky (URS)	Nikolai Pankin (URS)
1972 Munich	Nobutaka Taguchi (JPN)	Tom Bruce (USA)	John Hencken (USA)
1976 Montreal	John Hencken (USA)	David Wilkie (GBR)	Arvydas Juozaitis (URS)
1980 Moscow	Duncan Goodhew (GBR)	Arsens Miskarovs (URS)	Peter Evans (AUS)
1984 Los Angeles	Steve Lundquist (USA)	Victor Davis (CAN)	Peter Evans (AUS)
1988 Seoul	Adrian Moorhouse (GBR)	Karoly Guttler (HUN)	Dmitry Volkov (URS)
1992 Barcelona	Nelson Diebel (USA)	Norbert Rozsa (HUN)	Phil Rogers (AUS)
1996 Atlanta	Frederik Deburghraeve (BEL)	Jeremy Linn (USA)	Mark Warnecke (GER)
2000 Sydney	Domenico Fioravanti (ITA)	Ed Moses (USA)	Roman Sloudnov (RUS)
2004 Athens	Kosuke Kitajima (JPN)	Brendan Hansen (USA)	Hugues Duboscq (FRA)
2008 Beijing	Kosuke Kitajima (JPN)	Alexander Dale-Oen (NOR)	Hugues Duboscq (FRA)

200 METRE BREASTSTROKE

GAMES	GOLD	SILVER	BRONZE
1908 London	Frederick Holman (GBR)	William Robinson (GBR)	Pontus Hanson (SWE)
1912 Stockholm	Walter Bathe (GER)	Wilhelm Lutzow (GER)	Paul Malisch (GER)
1920 Antwerp	Hakan Malmrot (SWE)	Thor Henning (SWE)	Arvo Aaltonen (FIN)
1924 Paris	Robert Skelton (USA)	Joseph De Combe (BEL)	William Kirschbaum (USA)
1928 Amsterdam	Tsuruta Yoshiyuki (JPN)	Erich Rademacher (GER)	Teofilo Yldefonso (PHI)
1932 Los Angeles	Tsuruta Yoshiyuki (JPN)	Reizo Koike (JPN)	Teofilo Yldefonso (PHI)
1936 Berlin	Tetsuo Hamuro (JPN)	Erwin Sietas (GER)	Reizo Koike (JPN)
1948 London	Joe Verdeur (USA)	Keith Carter (USA)	Robert Sohl (USA)
1952 Helsinki	John Davies (AUS)	Bowen Stassforth (USA)	Herbert Klein (GER)
1956 Melbourne	Masaru Furukawa (JPN)	Masahiro Yoshimura (JPN)	Kharis Yunichev (URS)
1960 Rome	William Mulliken (USA)	Yoshihiko Osaki (JPN)	Wieger Mensonides (NED)

1964 Tokyo	Ian O'Brien (AUS)	Georgy Prokopenko (URS)	Chester Jastremski (USA)
1968 Mexico City	Felipe Munoz (MEX)	Vladimir Kosinsky (URS)	Brian Job (USA)
1972 Munich	John Henken (USA)	David Wilkie (GBR)	Nobutaka Taguchi (JPN)
1976 Montreal	David Wilkie (GBR)	John Henken (USA)	Rick Colella (USA)
1980 Moscow	Robertas Zulpa (URS)	Alban Vermes (HUN)	Arsens Miskarovs (URS)
1984 Los Angeles	Victor Davis (CAN)	Glenn Beringen (AUS)	Etienne Dagon (SUI)
1988 Seoul	Jozsef Szabo (HUN)	Nick Gillingham (GBR)	Sergio Lopez (ESP)
1992 Barcelona	Mike Barrowman (USA)	Norbert Rozsa (HUN)	Nick Gillingham (GBR)
1996 Atlanta	Norbert Rozsa (HUN)	Karoly Guttler (HUN)	Andrey Korneyev (RUS)
2000 Sydney	Domenico Fioravanti (ITA)	Terence Parkin (RSA)	Davide Rummolo (ITA)
2004 Athens	Kosuke Kitajima (JPN)	Daniel Gyurta (HUN)	Brendan Hansen (USA)
2008 Beijing	Kosuke Kitajima (JPN)	Bailey Rowland (AUS)	Hugues Duboscq (FRA)

23. CONFLICTS – INJURY PREVENTION COMMITTEE

Based on current research evidence on the effectiveness of infant or toddlers aquatic programmes, the Canadian Pediatric Society recommend toddlers should not be promoted as being effective of drowning prevention. Children less than 4 years of age do not have the development ability to master water survival skills, and, swim independently. Activities for these children should focus on building confidence, and, educating parents regarding water safety.

The swimming reflex is really a primitive motor behavior that some babies demonstrate in water shortly after birth. It involves alternately leg and arm flexion, and extension with some sideward bending of the trunk. Because this reflex looks like a dog paddle many people suppose that it is really swimming. (13 May 2011)

24. CHILDREN I HAVE BEEN FOLLOWING FOR THE LAST 15 MONTHS WHO RANGE FROM 3 YEARS TO 4.5 YEARS OF AGE

Zaniqua who was 3 years old and introduced to breaststroke and is not 100% with technique, but on her way to maybe, if she chooses a good future in the swim world of all strokes. I think it is beneficial for preschoolers to be taught at a younger age the basics of breaststroke, even if they are not naturally inclined.

Recording of Lessons

- Child 1 – Jenna
 - Child 2 - Mia
 - Child 3 – Austin
 - Child 4 - Sienna
 - Child 5 – Zaniqua
 - Child 6 – Jessica
-
- New 1 – Leah
 - New 2 - Libby

Wednesday 14 May 2010 – 3 Years – 3.5 Years

- Mia Lovely all strokes – breaststroke arms – legs side
- Sienna Little Snapper not happy today - dry land legs breaststroke

19 May 2010

- Mia Good Kick except 1 leg at the moment

25 May 2010**All kicking boards front and back noodles**

- Jenna New needs to straighten legs
 - Mia Good kicking breaststroke legs on side
 - Sienna Eyes sore - side sitting breaststroke legs
-

03 June 2010**Breaststroke on side on mat after kick straight legs**

- Jenna Bent legs for freestyle/bottom up – needs more noodle work and board work
- Mia Good Kicking needs more kick
- Sienna Good towards end of lesson – board work

10 June 2010**Dry land legs breaststroke****Breaststroke legs and survival kick noodles**

- Jenna Happy getting better
- Mia

17 June 2010**Dry land Kick**

- Harrison Legs straighten
- Jenna Good Effort
- Mia Good Kicking and good work
- Sienna Good work – good breaststroke on noodles

24 June 2010

- Harrison Success at legs - great
 - Jenna Awesome legs - breaststroke
 - Mia Legs on dry land and water
 - Sienna Survival kick – good
-

10 July 2010

- Jenna Kicking bent legs – survival breaststroke good
- Mia Absent
- Sienna Good in all drills and play

10 July 2010

- Harrison Great survival kick
 - Jenna To remain in Snapper (age)
 - Mia Age for remaining in class – freestyle arms great and back drills with board good breaststroke legs coming along
-

10 August 2010

- Jenna Diving – big pool – all survival breaststroke
- Mia Absent
- Sienna Great survival legs and breaststroke

10 August 2010

- Jenna Great work all with aided noodles
 - Mia Ears in water – stomach up all going well with breaststroke legs
 - Mia Pulling knees under stomach
 - Sienna Nice finish for breaststroke glide
-

11 January 2011

- Austin Good work with leg movement and knowledge of breaststroke legs
- Mia Good straight legs – more perfection needed now
- Sienna Good straight legs kicking breaststroke dry land

11 January 2011 - 3.5 – 4 Years Old

- Austin Dreaming today
- Jenna Improvement all round all going well
- Mia Nice breaststroke legs – good

Survival legs - good on all children

11 February 2011

- Austin Good arms
- Jenna Great survival kick – dry land legs natural beginning
- Mia Great survival kick

23 February 2011

- Austin Survival kick
- Jenna Big arms
- Mia Breaststroke kick – correction with manipulation and noodles

29 February 2011**Breaststroke Survival Dry land and with Noodles**

- Austin Bigger Arms
 - Jenna Good rotation
 - Mia More Kick
-

09 March 2011**Dry land kick – Children do this now voluntarily without being asked**

- Austin Good straight legs freestyle
- Jenna Rotation not aided
- Mia Better rocket arms

All rotation good

16 March 2011

- Austin Survival good kick stomach up
 - Jenna Survival great kick great
 - Mia Excellent breaststroke legs/survival rotation to move up
-

06 April 2011

- Austin Freestyle arms breaststroke legs good and survival. Verbally a good knowledge of all strokes
- Jenna Survival kick great/breaststroke legs good. Arms good freestyle more kick – communication and understanding excellent
- Mia To move breaststroke legs near perfect – good knowledge knowing verbally the meaning of all strokes

13 April 2011**Video**

- Austin Breaststroke legs – survival
- Jenna Breaststroke legs – survival
- Mia Breaststroke legs – survival

20 April 2011**4 Years Old**

- Libby (new) Teaching dry land breaststroke
- Leah (new) Teaching dry land breaststroke
- Jenna Going Well
- Mia Going Well

27 April 2011

Videoed legs on side pool altogether

- Libby
 - Leah
 - Jenna Filmed Jenna and Mia legs – automatically do dry land
 breaststroke legs
 - Mia
-

04 May 2011

Introduced arms to all 4 walking with arms outstretched –

Pushing sand out and pulling sand in

Breaststroke legs/survival with noodles

04 May 2011**Videoed Jessie and Zaniqua**

- Jessie Showing Jessie breaststroke legs at age 9 years. Jessie was 3 years when started swimming
- Zaniqua Introduced arms – breaststroke legs

12 May 2011

All group did dry land legs with pointed toes

- Leah
- Libby
- Jenna Breaststroke and survival developing nicely – Introduction of arms again walking
- Mia Survival kick

17 May 2011

Dry land Breaststroke – Mat lying on Floor – Leg Manipulation

24 May 2011

Dry land Breaststroke – Front Breaststroke Kick Noodles

- Mia Away overseas
-

01 June 2011**First Dry land Breaststroke Survival Kick - New girls needing help**

- Jenna Going well – kicking of front

08 June 2011**First Dry land Breaststroke Survival Kick - New girls needing help**

- Jenna Going well – kicking of front

15 June 2011**Noodles Arm Movements – Noodle Feet**

- Jenna Going well – Survival kick more perfected

22 June 2011

- Austin Breaststroke legs and survival going well
- Jenna Great arms and kicking
- Leah Improvement happening for survival and breaststroke
- Libby Improvement happening for survival and breaststroke
- Zaniqua Introduction video on first effort with noodle – no water manipulation yet

29 June 2011

Dry land survival noodles/walking arms

To try noodles and legs with Mia/Austin/Jemma in the future.

Jessica

Mermaid Jessica has been making waves since her first dip at six months. Learning breaststroke and butterfly, and already has a firm grasp on backstroke and freestyle. Ms Olding said that there were a lot of children with the ability, but had not been given the chance at an early age. Ms Olding said to have a four year old in a Swordfish class generally reserved for children 7 – 8 years, was practically unheard of. June 2011.

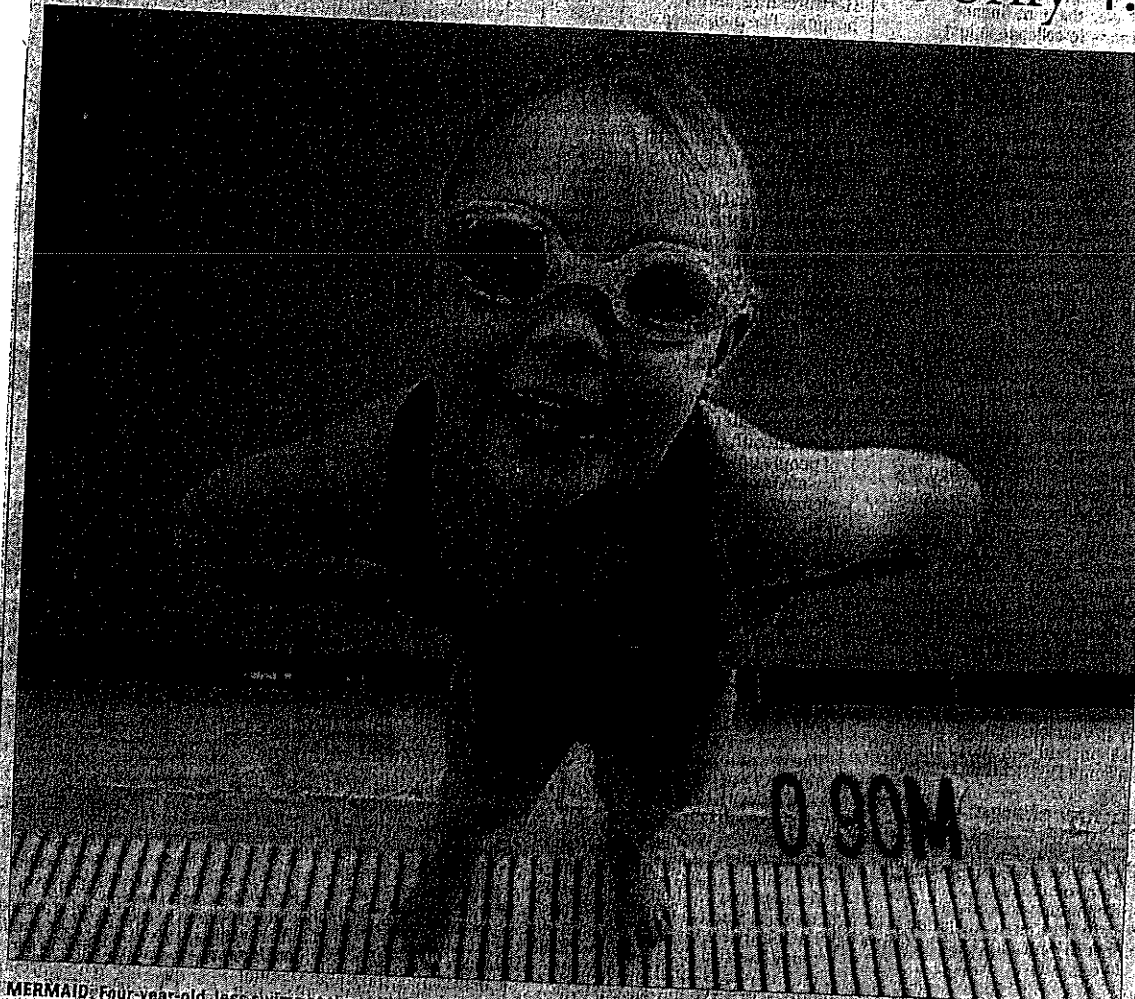
Jessica now as shown in the video is a beautiful breaststroker, photo provided. Permission – Lisa June 2011.

Zaniqua

Zaniqua is three years old and is using big arms and kicking/wriggly worm/form of breaststroke arms and kick, floating on back/attempting butterfly arms – video provided.

She has been active once a week in the pool at two years old. She has been left to play and discover the water, and, also light instruction.

Backstroke, freestyle. Even butterfly. Jess can do 'em all — and she's only 4!



MERMAID: Four-year-old Jess swims at the skill level of children twice her age and is learning butterfly. **PICTURE:** CLAIRE DE BARR 280807CD2680P

She's been making waves from first dip at six months

By **VICKI WATERHOUSE**

vicki.waterhouse@bcbp.co.nz

DUCKING and diving beneath the surface of the pool at Baywave, Jess looks completely at home in the water. She's learning butterfly and breaststroke and already has a firm grasp of freestyle and backstroke.

But what makes this girl from Otago so unique, however, is not just her swimming ability — it's that she's only four and has a number of medical conditions.

Her family have asked the medical conditions and her surname not be published for privacy.

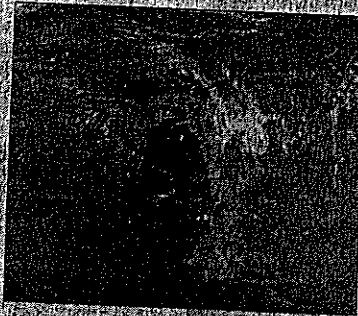
Jess first dipped her toes in the water at six months old and at the age of three she accompanied her mother, Lisa, to aqua aerobics.

"I used to aqua jog in the big pool and she would do 20 lengths with me with her floaties on," Lisa said.

It was during one of these sessions that swimming teacher Jane Olding picked up on Jess' ability.

"They asked Lisa if she would like Jess to have a go at swimming."

"In 10 minutes Jane had her swimming without floaties," Lisa said. "When I first saw her do it I cried. Every time she does a new stroke I get emotional."



TOP FORM: Jess in action. — 280807CD3680P

Lisa said Jess, who is still only in preschool, was at the same level as her nine-year-old brother and was in no way overshadowed by the older kids.

She holds her own, she's got a real streak of determination and stubbornness," she said.

Ms Olding said to have a four-year-old in "Swordfish" — a class generally reserved for children of seven or eight — was practically unheard of.

"She said there were two preschoolers out of the 1500 children in Swimways Swim School who were in the class below that, but only Jess in Swordfish."

"When you get children like that

you've just got to know when to give them that little push," she said. "She's a natural — you can tell her to do something and she gets it just about straight away."

Ms Olding said there were a lot of children who had the ability but had not been given the chance at an early age.

Jess had been swimming for two terms now and Ms Olding said she was going from strength to strength.

"We're not going to push her because she loves the water," she said. "She's in a school-age class with seven and eight-year-olds and she could go higher than that."

Jess can do 25m of freestyle and even turn around under water going from one stroke to another.

Lisa attributed much of Jess' success to the guidance of the teachers at Baywave's Swimways Swim School.

"I think a lot of why she's swimming like this is that she trusts Jane and they have a really good bond and I think that's important that they trust who is teaching them," she said.

"Even if someone offered me a million bucks I wouldn't change her, not with the relationships she has with the staff here."

And what did Jess think about swimming? It was pretty obvious. She wasn't out of the water long enough to ask

26. FINAL CONCLUSION AND EVALUATION

After my working with younger children 6 months to 5 years, and recording various preschoolers, I think it is definitely beneficial to teach younger children breaststroke/survival kick. I believe it is even valuable to teach infants by introducing breaststroke legs to help stimulate their natural reflexes. Breaststroke legs is very complex, as some lack ankle strength for movement, but rudimentary movement can be worth following up. Dry land first, and also sitting on the side of the pool make it fun as well. There is no strict order for learning, but variation can be given successfully. A great number of under fives do grasp or master all strokes completely. Water exploration, confidence, and "lots of fun" are all proof of success in this area, and also having good coordination can be an advantage for all strokes. Regular aquatic experience, and repetition of leg and arm movements with gentle manipulation also helps towards success of breaststroke.

In the video, and written chart of a group of children, it shows that it is more beneficial than non beneficial for a good advantage, for better understanding, and able to achieve later on for more correct strokes and drills. Survival backstroke, (breaststroke on your back), is also very effective and an easy stroke to master, and used for survival situations. Teaching breaststroke throughout all levels has major benefits, and safety is one of the first. If you can master survival kick on your back, then children can flip over, and can have a better idea for breaststroke kick, and achieve it more readily. In video provided I have had great positive results for breaststroke kick. Breaststroke also helps for the feel of the water for younger children, also aiding them for streamline movements.

In New Zealand, we classify breaststroke as a third stroke, and I hope I have proved a point that breaststroke has an important role to play in the future for New Zealanders. To introduce breaststroke to younger children, (even infants), we can do this with “FUN” games, songs as well. We can use progressions with childrens’ gross motor attributes as well. All children will learn through exploration. Playing in the pool also as a young child, helps build childrens’ strength, stamina, and general skills.

The Olympic Records of which I have included, show that not one New Zealander has ever obtained a medal in breaststroke, as shown in the (Olympic Section). Recorded are the countries whom include breaststroke in their teaching of younger children, or teach it as a first stroke. Breaststroke is included with backstroke, freestyle, and butterfly.

Survival kick is also important, as drownings have increased in New Zealand from possibly lack of teaching swimming in New Zealand schools. It would be really beneficial to teach children survival kick, and breaststroke, of which is the one stroke we can conserve our energy. The leg movement for children is also not an unnatural kick as shown in video of infant kicking. With regular aquatic visits, and repetition and stimulation of movement with legs and arms, this would help with confidence, competence at a skill, or all skills. With fun, and songs with activities, children display an increase in their desire to participate. They certainly respond, and helps visual, listening, developing memory incorporating movement experiences, that give the language meaning.

With Zaniqua, I have shown how at 3 years old, she has movements which have been stimulated through play, and also once a week is gaining more confidence, strength and better skills, and her progression is gradually developing. Her love of the water is also an advantage, and she has the feel for the water even at a young age.

Jessie at a young age, (infant), was making waves also from 6 months old, and at 9 years old, as demonstrated in video, has a full concept of all strokes successfully.

I am also teaching children of the same age group who continually have trouble, who started at a later age, and cannot be moved up to a higher group. These children cannot even, after one year, get the kick or arms correct, or co-ordination. Breaststroke has proven to be not only upsetting to the children, but parents also.

Breaking up the stroke also, to teach, is one of the most important things to do. As written up in **Breaststroke Progression in Preschoolers**.

- Propulsion and arm movement in all strokes
- Survival kick and sculling
- Hand drill
- Streamline
- Breaststroke legs first
- Arms second
- Co-ordination of the two together
- Breathing
- Repetition - **FUN**

Austin, Jenna, and Mia, I have followed for 15 months, and have had more regular swimming instruction. They have developed a good grasp of all strokes, rotation. Survival kick is fairly well developed, and breaststroke legs aided also developing. They are capable of arms, and will try on this next term, to develop putting the two together, with, and without noodle. My last video will show a later development of their movements.

Leah and Libby are included also, and have been with me for one term, and already have shown a remarkable improvement for survival kick, and breaststroke legs.

Sienna had in only a few lessons, showed that she quickly understood movement, and was able to achieve breaststroke legs, almost to perfection.

History of breaststroke was included in the beginning, as it holds a valuable part of movement in water, and shows that it was the key to being one of the first swimming strokes. Records show pictures in caves, in which it records it as being one of the first strokes. I have included this "Swimming of the Caves".

Breaststroke was one of major importance, and continues to this day to be in many countries in the world. Captain Webb used breaststroke to swim the English Channel also.

The importance of this stroke for young children, and adults, is of great value, for not only to use in competitive swimming but for survival, long endurance, and to use the natural kick of infants, preschoolers and young children for a wonderful future in aquatic experience.

27.METHOLOGY

Research on other previous studies, studying and recording a various group of children, recording and videoing progress.

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Jessica Martin	Zaniqua Pratt-Smith
Jenna	Austin
Leah	Libby
Sienna	Mia

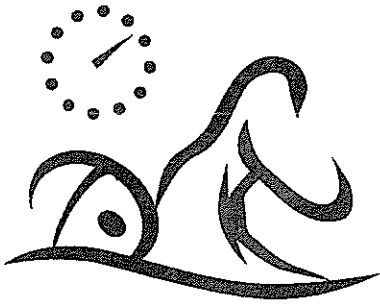
To all my colleagues I work with who have helped me with breaststroke ideas and input.

30. SURVEYS QUESTIONNAIRE

1. What age do you think a child can be introduced to breaststroke legs ?
Majority were in favour of preschool, with a handful with infant being classed as natural.
2. Have you ever tried to introduce breaststroke legs to infant, preschool, school age? Once again the majority were preschool as positive.
3. Results of introducing as preschool were a variety of Good/Excellent/Mixed/ with comments.
 - Depending on co-ordination
 - Started with survival kick
 - One with infants using a form of breaststroke kick and when arms manipulated in a forward circle. Too early for technique or timing. Parental influence/gave up for parental wishes for freestyle
 - Depending on physical development
 - In general like most things earlier the better
 - Survival kick – good survival kick to breaststroke
 - Fun activity works well
4. Parents complaining of wasting time. Majority number with some liking an explanation on why breaststroke.
5. For classing breaststroke as a third stroke, all thought this as the case.

6. On asking if it more difficult to teach breaststroke to school aged children who have had no previous instructions, as compared to those that have.

- Depending on co-ordination
- Some pick it up before other
- Bad habits hard to correct
- Depending on previous instruction being correct
- Age and readiness are factors
- Earlier the better for best results
- Can take years to get right
- No previous instruction can take longer
- Picked up bad habits earlier – hard to break



LEARN TO SWIM

- *We teach all different strokes and water safety skills at a range of levels*
- *Water Confidence for your Babies*

Ensure children have fun in the water our lesson planning focuses on high repetition of key skills relevant to each child's individual developmental capabilities:

- *Freestyle arms and breathing*
- *Kicking*
- *Breaststroke kick – Preschool Levels*
- *Breaststroke Co-ordination*
- *To develop breaststroke*
- *Teaching Under 5's to swim and survive*
- *Back and Front paddle strokes quickly leads to learning freestyle, breaststroke, backstroke*
- *Personal Survival Techniques*
- *Motive simple teaching water safety*
- *To learn phases of backstroke, freestyle, breaststroke, butterfly*
- *Safety Education*
- *Progressive as young as 6 months – All levels breaststroke, freestyle, backstroke*

