



opinion

Text by Mike Ange

In the first article in this series, we discussed the importance of building the diver's comfort zone and how the comfort level of the newly trained diver affects his or her long-term participation in the sport. This begs the questions: how much impact does drop-out actually have on the sport; and what can the instructor do to correct the problem?

The impact of diver drop-out is very difficult thing to assess due to a lack of data. The findings discussed in the first article in this series only tracked divers who completed an open water diver course.

Another organization in the United States, the National Sporting Goods Retailers Association, published a report during the period of the study that addressed all people who try the sport of diving. Although it is not defined, the results apparently (from context) include the "try a dive" courses offered by most training agencies. According to this data,

less than seven percent of the people who try diving will continue in the sport, and many of the dropouts cited the same reasons for dropout: comfort level.

What the statistics fail to address is how many of these potential divers would

have tried the sport in a longer and more comprehensive class but would have become active in the sport, as opposed to the norm of trying and moving on. If this applied to only 10 percent, what would the effect be on our sport and the indus-

try that supports it?

The more important question is: What can be done in the scope of the modern dive training to change outcomes and potentially increase the safety of the sport, even if the increase will be a small

increment in what is by all accounts a statistically safe sport? The most significant challenge faced by dive operators around the world is time. In an increasingly fast-paced world, potential divers have less available time for recreational



Retaining Divers by

Building a Comfort Zone

Analyzing the Obvious –Part II

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Confidence-building drill: Swimming 25m underwater on a single breath of air *horizontally* rather than *vertically* may be less daunting an idea to new students.

Comfort

gency ascent. From the educated diver's perspective, this is a simple skill; when in doubt, ascend to atmospheric air, and then solve the issue or terminate the dive.

For the new diver anticipating dives as deep as 20m (~60ft), this may not sound like a solution. For the new student who sees a free ascent from 2.5m as unachievable, a free ascent from 20m may sound like launching into space.

However, if we couple a very basic understanding of Boyle's law with the student divers' ability to swim horizontally 25m on a single breath of air, we have changed reality for that student. Some divers will "get it" without prompting, but for the rest, a simple statement will close the loop. "You have now made it 25m underwater on one breath of air, and this is 5m farther than the maximum depth you will be qualified to dive in this course,

and you did it without the benefit of the air in your lungs expanding." The underwater swim has now gone from a fitness test to a survival skill, and every survival technique mastered expands confidence.

Objections

So, what are the objections to this skill? Some in the training standards world think this skill is too difficult for divers to complete, and therefore it becomes a roadblock to producing new divers. In my experience, between 80 and 85 percent of divers pass this skill on the first or second attempt, and in 27 years of teaching, I saw less than a half-dozen fail to pass the skill (none of which were excluded from diving).

What about safety? The instructor should certainly be cognizant of shallow water blackout, and an instructional team—prepared to respond if an incident occurs—

pursuits every year.

Training agencies have responded by providing more efficient means of delivering purely academic material to student divers and by removing what are thought to be archaic skills. The response seems logical. After all, it makes sense, for example, to remove skills like buddy breathing, sharing gas by sharing a single second stage regulator. Nearly every training agency around the world, if not all of them, require the use of a safe second or octopus

regulator today, so what purpose can possibly be served by teaching a somewhat difficult and very time-consuming skill? It turns out the answers are surprising.

Problem solving

These skills, which have either been removed or made optional in most of the larger training agency programs, may not be that important for the obvious skills they teach, but they do significantly impact the diver's ability to problem solve. The ability to solve

known problems improves the confidence to solve unforeseen problems.

For the sport, the math is simple. Building confidence is the best way to deal with the fears caused when a diver is unable to anticipate what will occur. More confidence equals a larger comfort zone and a more comfortable diver, especially at the most basic levels, which equals more dedicated participants in our sport. Therefore, the problem for the instructor is to determine what

drills can safely be used to build confidence and the solution can be ridiculously simple.

Building confidence

Let's examine one previously required skill that is still used by many instructors in spite of the fact that it is no longer required by most agencies: swimming 25m (~75ft) underwater on a single breath of air.

One of the primary skills taught to basic divers in Open Water Classes is the controlled emer-



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Students must learn the difference between a breath hold and a swimming ascent after breathing scuba.

should monitor students. Never teach this skill in water more than 1m to 2.5m deep. Since the divers will never ascend to a significantly shallower depth and since the time of the free dive will generally be a bit less than 30 seconds, these concerns are well managed.

Instructors should not have students who do not pass the skill repeat it more than three or four times for three reasons: 1) CO₂ buildup makes the skill increas-

ingly harder to complete; 2) the risk of blackout incidents increases with each repetition; 3) the purpose of the skill is to build confidence, not create frustration, so let the divers attempt the skill during subsequent classes or perhaps at the end of the current water training session.

You will have to educate your students on the difference between a breath hold and a swimming ascent after breathing scuba, but this is already



required, and this exercise does not instill any "bad" knowledge that the dive student does not already have. Virtually anyone who has been swimming as a kid has learned to hold his or her breath and swim a few meters underwater.

Risk vs benefit

Risk versus benefit must also be included in every instructional plan. Some skills of the past are inherently dangerous and have been discontinued for good reason. For example, skills like breathing from a bare tank impose a level of risk that is unacceptable when compared to the benefits derived from that exercise. Skills that posed even a fairly minimal risk of embolism, drowning or underwater blackout cannot be justified in the training program.

However, this need not limit the instructor's ability to build confidence in divers. Simply examine the most common fears of your students and address them in a controlled manner. The two most dif-

ficult skills for divers to master also identify these fears: loss of vision and loss of breathing gas.

Ideas for confidence building

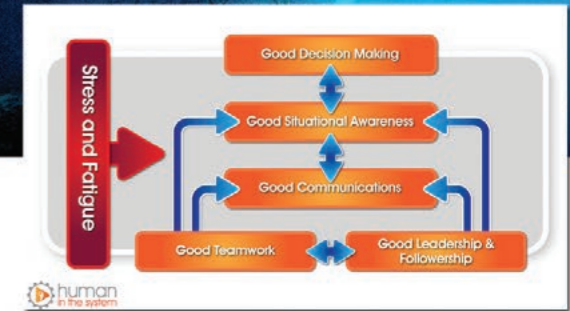
Have your divers complete a number of skills without a mask. Most training agencies require divers to swim some distance (8m, or 25ft, or more). Try alternate air source breathing or regulator recovery without the mask in 1m to 1.5m of water.

Buddy breathing (sharing one second stage) while swimming. This skill set has fallen out of favor as archaic because of the requirement for all dive gear to have an alternative second stage and to a lesser extent concerns about cross infection from shared mouthpieces.

Additionally, it can be difficult to master as compared to the other skills in an open water class and can be time inefficient. However, the benefits far outweigh these issues and that is why many instructors still teach this skill, and several agencies endorse it as an optional exercise.

Drills without a mask can build confidence

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New divers have an almost pathological dependence on the regulator. This is evidenced by the number of mouthpieces that are bitten through in training rental regulators. The simple act of removing and replacing the regulator is a monumental step for some students. Even after repetitive regulator recovery exercises and alternate air breathing exercises, some students still retain a fear of losing the regulator.

Complicating those simpler skills by requiring control of the breathing pattern, coordinated swimming in tandem with your air-giving dive buddy, and navigating toward a

set point will take the diver's mind off the idea of immediately drowning. By the time the skill is mastered, confidence in your least confident students will have doubled.

Safety tips: Set the skill up with mostly horizontal swims and swim with your students so that you can monitor for breath holding. To reduce the risk of cross infection, you can also have the divers hold two regulators together and pass them back and forth but breath only on their own regulator.

Drills

A good instructional program will

provide drills that build the ability to solve problems. The more diverse those drills can be, the more confident the diver will be in addressing those problems he or she cannot anticipate.

Next to the actual ability to anticipate, which only comes with actual experience, the ability to intuitively solve those things the diver cannot anticipate is the second most vital skill for the new diver. The next article in this series will discuss the application of these same skills to more advanced forms of diving and the threat reliance on technology poses for the diver. ■

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