

CMAS TECHNICAL COMMITTEE



CMAS

CMAS INSTRUCTOR MANUAL

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CMAS TECHNICAL COMMITTEE

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CMAS

CMAS ADMINISTRATIVE SYSTEM CHAPTER



CMAS

PRESIDENT'S WORD

When you decided to become a CMAS Scuba Diving Instructor, you assumed a great responsibility, that of training divers for the diving activity. Teaching scuba diving is a rewarding professional activity, but you must always keep in mind that you are not doing it just for your own pleasure, because you will become a CMAS Instructor.

A CMAS instructor is highly qualified in all the teaching components, be them theoretical or practical, having always a constant update of scientific and security procedures. With these competencies the CMAS Instructor's mission is centered in teaching divers transmitting confidence and safety during the whole period of their training.

Diving training related activities and products continue to increase year by year around the world. The commercial demand for products developed to meet the increased demand has forced the diving industry to create new training programs/certifications and also the development of new equipment.

With this world market trend, the CMAS training system presents more than 100 training programs for divers and instructors in the fields of recreational scuba diving, technical diving, scientific diving and also freediving.

The CMAS philosophy is to develop a world class training system highly differentiated and focused on the quality of its instructors. Being a CMAS instructor is a motive of pride because you will be part of one of the oldest and most respected training systems in the world.

As a CMAS instructor you will be recognized with admiration, not only for the quality of the training that you will provide, but also by the satisfaction of their students. It is the CMAS instructor's high standards of knowledge and skills combined with ethical values and respect, that will earn the instructor personal loyalty, both to the CMAS diving school and to their students.

The objective of the instructor course is to systematize in a training program all the technical skills that you already possess as an experienced diver, adding a high development of your teaching skills associated to the CMAS training programs that you will be able to train/certify your students.

The CMAS international training system, promotes the creation of diving communities centered on their instructors, basing their teaching philosophy on personal and ethical values with the objective of training highly qualified diving professionals for the development of underwater activities.

The CMAS Technical Committee congratulates you for your decision to become a CMAS instructor in your national federation..

FLEMMING HOLMS
PRESIDENT OF CMAS TECHNICAL COMMITTEE



COURSE STRUCTURE

It is important before starting the course that the instructor understands the objectives, the methodologies and structure of the training contents, the competencies that will be addressed, as well as the evaluation process of the training programme he will attend. The fundamental objectives of this instructor training programme are as follows:

- Make CMAS instructor candidates understand the importance of training confident, highly skilled divers in the techniques and safety associated with the practice of diving and not focus solely on certification.
- Give instructor candidates a feeling for the ethical values and respect associated with the CMAS training system, know its principles and how to transmit them.
- To teach instructor candidates the fundamentals of managing a diving school and centre, methods of publicising and developing the CMAS brand associated with their business of providing diving services.
- Prepare instructor candidates to teach the various CMAS programs associated with the instructor certifications they hold.
- Teach instructor candidates all the administrative processes associated with the CMAS training and certification programs around the world and in his national federation.
- Enquire the instructor candidates about the legal issues associated with underwater activities in the world and his national federation.

INSTRUCTOR TRAINING PROCEDURE

The instructor training procedure is built around a 5-step approach. This is designed to help instructor candidates achieve training excellence from its inception to the final achievement of instructor certification.

STEP 1: INDEPENDENT STUDY OF THE MANUAL

Step 1 defines that the CMAS instructor candidate should study independently according to the guidelines in this manual, in order to start the instructor training programme with a knowledge base that will help him complete the training programme with higher levels of learning and success.

STEP 2: INSTRUCTOR TRAINING PROGRAMME

In this step the CMAS instructor candidate will attend the training programme consisting of a theoretical and practical training component in confined waters and in open waters. The candidates must perform:

- 1. A PRE-ASSESSMENT**
- 2. THEORETICAL SESSIONS**
- 3. PRACTICAL SESSIONS IN CONFINED AND OPEN WATER**
- 4. WORKSHOPS (OPTIONAL, BUT RECOMMENDED)**
- 5. ASSESSMENTS**



The training programme for CMAS instructor candidates is focused on imparting instructor competencies for the following programmes:

1. **CMAS SNORKEL DIVER**
2. **CMAS INTRODUCTORY SCUBA EXPERIENCE**
3. **CMAS ONE STAR DIVER**
4. **CMAS TWO STAR DIVER**
5. **CMAS THREE STAR DIVER**
6. **CMAS UNDERWATER NAVIGATION**
7. **CMAS RESCUE DIVER**

Once completed with positive results, candidates can proceed to step 3: performance evaluation.

STEP 3: PERFORMANCE ASSESSMENT

In this step the instructor candidate will undergo a review and evaluation process of the various training programs, where he must fully comply with the following:

- **SUCCESSFUL ATTENDANCE AND COMPLETION OF THE THEORETICAL TRAINING PROGRAM.**
- **ATTENDANCE AND SUCCESSFUL COMPLETION OF THE PRACTICAL TRAINING PROGRAM IN CONFINED AND OPEN WATER.**
- **ATTENDANCE AND SUCCESSFUL COMPLETION OF THE SAFETY AND EMERGENCY PROCEDURES TRAINING PROGRAM.**

If the candidate passes, the final assessment can be considered. If, at this stage, the Instructor Candidate does not pass one or more of the training elements, the Instructor Candidate may be referred to a CMAS to develop the required skills.

STEP 4: FINAL ASSESSMENT OF THE CANDIDATE INSTRUCTOR

In this step the CMAS instructor candidate is evaluated in a formal way. The candidate will be assessed in the same training programs that they have been trained in and have undertaken a review of their performance. The final assessment will consist of:

- **COMPLETION OF A WRITTEN OR ORAL EXAMINATION DEMONSTRATING KNOWLEDGE AND SKILLS ACQUIRED DURING THE TRAINING PROGRAM.**
- **PRESENTATION OF AT LEAST TWO (2) LECTURES IN ANY MODULE OF THE CMAS ONE STAR DIVER TRAINING PROGRAM.**
- **PRESENTATION OF AT LEAST TWO (2) CONFINED WATER TEACHING SESSIONS BELONGING TO THE CMAS ONE STAR DIVER TRAINING PROGRAM.**
- **PRESENTATION OF AT LEAST TWO (2) OPEN WATER TEACHING SESSIONS PERTAINING TO THE CMAS ONE STAR DIVER TRAINING PROGRAM.**
- **DEMONSTRATE DIVER RESCUE KNOWLEDGE AND SKILLS DURING A SIMULATED RESCUE EXERCISE BY EVALUATING AGAINST AT LEAST ONE OF THE POSSIBLE SCENARIOS.**

STEP 5: FINAL PERFORMANCE ASSESSMENT

The final performance evaluation is the final step of correction and analysis of the instructor evaluation that will define if the instructor candidate obtains his CMAS instructor certification or if he must remain as an instructor in training. The evaluation is always performed under the supervision of CMAS staff instructor Three star according a CMAS standards, appointed by the technical committee of the national federation.

TERMS AND DEFINITIONS

This topic introduces terms associated with the provision of diving-associated training services and the correct interpretation of terms associated with the documentation and technical vocabulary described in the CMAS training standards.

DIVER

A diver is a person undergoing training or an individual who receives or takes advantage of the diving service provided by a diving professional

INSTRUCTOR

A CMAS Instructor is a diving professional who may have responsibilities in managing, coordinating and/or co-advising training and/or services associated with recreational, scientific and skin diving activities.

DIVE GUIDE (DIVE LEADER)

A dive guide is a CMAS Three Star Diver certified dive professional who may co-assist instructors in training, manage dive centres and provide dive guide services to individuals or groups of recreational divers.

DIVING SCHOOL

A CMAS diving school is defined as a collective entity in the form of an association or company that carries out CMAS training with the awarding of international certifications.

FILLING STATION FOR GAS MIXTURES

The Gas Blending Filling Station is the service provision related to filling gas mixtures into diving cylinders.



ABOUT CMAS

The acronym “CMAS” is derived from the French name “Confédération Mondiale des Activités Subaquatiques” which translates into English as the “World Underwater Federation”.

CMAS was established in 1959 out of the need for an international controlling body for underwater sport. Captain Jacques Yves Cousteau, the world-renowned underwater explorer, was elected as the first President of CMAS at the establishment meeting.

CMAS now it comprises over 130 federations from 5 continents. In addition to organizing international underwater sport events it is at the forefront of technical and scientific research and development. It can be associated with elaborating one of the oldest and most extensive dive training systems.

One of the functions of the CMAS is to unify standards and regulations. Therefore the instructors that have done their apprenticeship following the training programs will have analogous knowledge to any instructor that has done his CMAS course in any place of the world, which allows them to train divers, also recognized all over the world.

Their philosophy is different from that of any other worldwide organisation related to diving.

CMAS IS A NON-PROFIT MEMBERSHIP ORGANISATION

CMAS is constituted as a non-governmental organization registered with UNESCO (United Nations Educational, Scientific and Cultural Organisation).

CMAS is also a member of the IUCN (International Union for Conservation of Nature), the WWF (World Wildlife Fund) and the ICRI (International Coral Reef Initiative) to promote marine science and conservation.

To legitimise, organize and facilitate international competitive underwater sport CMAS is also a member of the IOC (International Olympic Committee), the GAIFS (General Association of International Sports Federations) as well as the IWGA (International World Games Association) and WADA (World Anti-Doping Agency).

The activities of CMAS are overseen by an elected Board of Directors whilst the day-to-day management of the organisation is undertaken by a Steering Committee appointed by the Board of Directors.



THE CMAS INTERNATIONAL SYSTEM

The CMAS International Diving Certification system exists to allow divers who are trained to CMAS international training standards to have their certifications recognised around the world.

The CMAS is a non-profit organization that in each country is represented by a national federation.

Each national federation is represented by a technical structure called "CMAS Name of the national federation" and is organized with members of three Technical Committees:

- **TECHNICAL COMMITTEE**
- **SCIENTIFIC COMMITTEE**
- **SPORT COMMITTEE**

TECHNICAL COMMITTEE

The focus of the CMAS TC is providing the CMAS federation with guidelines for safe diving, education standards', quality control, teaching material and help starting with CMAS training.

This is achieved through promoting world class standards for all aspects of Scuba Diving and ensuring adherence of them by member federations and dive providers.

THE SCIENTIFIC COMMITTEE

The Scientific Committee coordinates scientific research activities in the fields of Conservation, Marine Biology, Freshwater Biology, Geology and Underwater Archaeology.

This Committee is also the link between professional and amateur scientific activities worldwide. All members of this Committee are internationally recognised scientists.

THE SPORT COMMITTEE

The Sport Committee sets the international standards and regulations of the various underwater sports for the areas of education of sports participants (coaches, referees/judges, athletes and officials) and sports events (World Championships, Continental Championships). There are 10 underwater sport disciplines: (1) Aquathlon, finswimming, snorkelling, underwater hockey, underwater rugby, underwater orienteering, Spearfishing, sport diving, underwater shooting and audiovisuals.

CMAS INTERNATIONAL TRAINING SYSTEM

The CMAS training system has for objective that in any place of the world a diver that receives instruction and training according to CMAS international training standards is able to visit other places and be accepted as a diver with the competence and experience indicated in his CMAS certification. The CMAS International Diving Certification proves that its holder has received the level of training corresponding to his certification.

This principle is applied to all levels of training and certification, from One Star Diver (CMAS One Star Diver) to Three Star Instructor (CMAS Three Star Instructor).

The technical guideline documents are called "Standards". For each training course there are documents called "STANDARD" and program that can be consulted in the CMAS International website (www.cmas.org).





Learn To Dive

Get to know the benefits of CMAS's diver training system. It offers an international framework for diver and instructor qualifications in scuba diving. As a non-profit organization our aim is to deliver quality education for divers at all levels.

If you have any further question, please contact to your local federation.

Federations »



The 10 Golden Rules of CMAS

Dive like your shadow, do not leave any trace and be a sensible part of the underwater world, not an alien.

1. Never enter the water through reed, living corals or water plants.
2. Control your buoyancy.
3. Keep distance from corals and other animals and do not stir up sediment.
4. Take care where you drop your anchor during boat dives.
5. Do not chase, touch or feed wild animals.
6. Do not spearfish for fun and do not buy or collect any souvenirs such as corals and shells.
7. Be very careful when diving in caves. Bubbles or any simple contact may destroy delicate life.
8. Keep diving places clean.
9. Learn about the underwater life and avoid any destruction.
10. Urge your buddies to follow these rules too.

How to start?

1. Get to know the CMAS International Diver Training Certification System by reading the General Requirements.
2. Consider and Choose a Dive training programme by using the dive training map or the finder box.
3. Download and read the related documents.
4. Contact to your local federation to get to know more informations about the Dive Training Programme you choosed.

General Requirements

The CMAS has developed a CMAS International Diver Training Certification System that consists of Diver, Speciality Diver, Technical Diver and Leadership Diver Training Standards and which allows divers, that have been trained in accordance with the prescribed CMAS International Diver Training Standards, to have their certifications recognised throughout the world in countries that are members of the CMAS family of divers.

General Requirements »

Search for programme

in the CMAS International Diver Training Standards and Procedures Manual



Dive training map

The CMAS has developed a CMAS International Diver Training Certification System that consists of Diver, Speciality Diver, Technical Diver and Leadership Diver Training Standards and which allows divers, that have been trained in accordance with the prescribed CMAS International Diver Training Standards, to have their certifications recognised throughout the world in countries that are members of the CMAS family of divers.

Learn more »

NOTE:

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CHAPTER 1

WHAT MAKES A GOOD INSTRUCTOR ?



DEFINITION: Learning can be defined as a relatively permanent change in behavior that occurs as a result of experience. Hence, a person is said to have learned something when he/she consistently exhibits a new behavior over time. Therefore, a good instructor must be fully aware of how people learn.

1. UNDERSTANDING HOW PEOPLE LEARN

Most divers would remember a good diving instructor.

- So, why were they good?
- Is it because their teaching style was effective?
- They were skillful and flexible?
- Their students enjoyed reaching new levels of achievement?
- Or the students were feeling safe and comfortable in the water?

For an instructor, the challenge of teaching is not what you teach, but it is the students themselves. The success of instructing often comes from the satisfaction of getting students who need more help than others to achieve their aim. Therefore, getting to know your students is the key to being able to help and motivate them. To become good instructors, you need to know different learning theories. The theories which will be discussed in this manual are:



- RECEIVING INFORMATION,
- RETAINING INFORMATION,
- MOTIVATION,
- ATTENTION SPAN AND PROGRESSIVE INSTRUCTION.

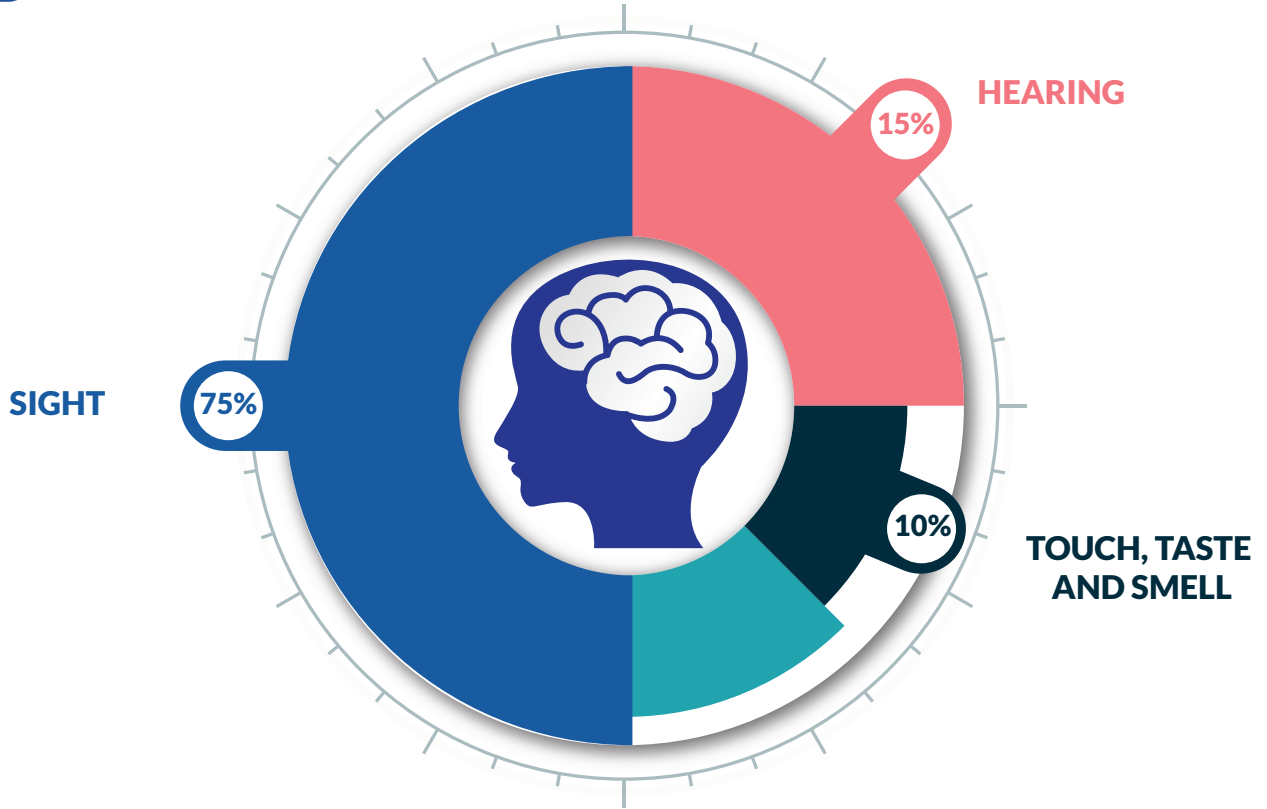
2. RECEIVING INFORMATION

Learning is acquired through the five senses i.e., sight, hearing, touch, taste and smell. About **75%** of the information the brain receives is through sight, **15%** through hearing and **10%** through the other sensations.

Accordingly, most learning, is derived from sight and hearing; however, touch is very important in learning practical skills such as diving skills.

If the skill is relatively safe, it can be learned effectively by trial and error since learning through trial and error relies on people making mistakes early on in acquiring skills and mastering them. However, that requires a safe environment to practice. That is the same situation with diving training since initial training is done in a safe environment. Even experienced divers should learn and practice new skills in the safety of sheltered water.





Physical skills are learned through the use of senses in the following order:

- PRACTICE 65 %
- VISION 25 %
- HEARING 10 %

This highlights the importance of practical sessions such as in water teaching and training. Remember the following phrase by the Chinese philosopher Confucius, which aptly describes how people learn: **I HEAR AND I FORGET. I SEE AND I REMEMBER. I DO AND I UNDERSTAND.**

NOTE:

2.1 RETAINING INFORMATION

Another important part of the learning process is memory, which is the process used to acquire, store, retain, and retrieve information:

LONG-TERM MEMORY : is made when a series of brain cells are hard-wired together by chemical bonds, and this memory remains intact if nothing attacks those bonds. So, when we ask our brain to retrieve some of information, it begins a lengthy search in this memory, where massive amounts of information are stored but in a not-so-efficient way.

SHORT TERM MEMORY : is our day-to-day files of things we need all the time and things that have just happened. In this memory we store the important information, such as how to get to work, how to drive and how to use certain equipment. The trick to forcing things into this daily file is repetition, hence we learn by practice and repetition..

Repetition of actions makes them a habit and commits them to everyday memory. Thus, if we want our students to remember things, **we need to add repetition to the learning process** (the task or information must be repeated several times to make it a habit), **and to the assessments, examination or tests** (to check how well information have been retained by our students).

As instructors, we tend to repeat behaviors which have pleasant consequences, and avoid behaviors which have unpleasant consequences.

2.2 MOTIVATION

To learn something well, we have to want to learn it. When we learn something we like, we are inclined to wanting to learn more. However, if it is too hard to learn, we would not like it so much and would have little motivation to learn it.

However, can you remember a subject that didn't really attract you at the beginning, but because of a really good teacher, you found that you began to understand and enjoy it? That is because this teacher found a way to motivate you into learning more. **To be a good instructor you have to find out students' motivation for wanting to learn.**

Sometimes the motivation comes from understanding why you needed to learn a subject rather than just being told, "because it is in the curriculum".

Because People will learn better when they are given a clear reason of "need to know", if they do not think the information is going to be important to them they will only retain bits and pieces or none at all.

When teaching diving theory, as an instructor, the 'need for know' information should have a practical application in diving. Most people who want to learn to dive do so because they can imagine themselves floating weightless in a new and spectacular environment.

2.3 ATTENTION SPAN

People can concentrate on a single subject, but only for so long. Our attention, when learning a new skill or information, has to be much focused. Therefore, teaching a subject needs to be carefully planned so that there is something new to learn in each session, not only to maintain concentration, but also to motivate students.

For example "In the classroom, if there are distractors outside, the windows should be covered, so that the students' attention is focused on the teacher".



2.4 PROGRESSIVE INSTRUCTION

Progressive instruction is teaching a complex skill or theoretical topic by breaking it down into small steps (microteaching) and teaching each small step in turn until the whole skill or topic is learned. Learning should proceed in this step-by-step logical sequence, and where possible be re-enforced by practice, both after each step or phase. This method works really well to teach diving.

People learn how to dive principally by seeing and doing practical skills, learning some underlying theory, and being motivated and enjoying the experience.

- Most skills will need to be broken down into easy-to-repeat steps.
- Each step, which the instructor demonstrates and the students mimic, includes a repetition of the preceding step, so that each step gets a little bigger building up to the end result or objective which is the overall skill (teaching by objective).
- If necessary, corrections can be made before advancing to the next step, so that a student will successfully achieve the skill.
- Whether it is a simple or more a complex practical diving skill, mimicking, correcting if necessary and repetition is how students learn to coordinate thoughts and movements to achieve the end result.
- The more a skill is practiced, the more automatic it becomes we can carry out skills without having to think too hard about it and they become a habit.

Progressive instruction in teaching diving also means that diver training can be broken down into a series of steps so that, as instructors, we will take our students from :

- ▶ **THE KNOWN TO THE UNKNOWN**
- ▶ **SHELTERED WATER TO THE MORE ADVENTUROUS OPEN WATER**
- ▶ **SIMPLE TO MORE COMPLEX KNOWLEDGE OR SKILLS**
- ▶ **BASIC AIR TO MIXED GAS DIVING.**

All these habits we learn as divers are important for our safety, the onus is on the instructor to always ensure good, safe teaching.

3. UNDERSTANDING WHAT STOPS PEOPLE LEARNING

The instructor should be aware of what could stop students' learning. By putting him/herself in their place, we can often resolve most problems they might be having.

3.1 APPREHENSION

Apprehension is caused by the lack of confidence or not knowing what to expect. If worried or frightened, no one can concentrate on much else other than themselves. This, can prevent people from learning. Therefore, progressive instruction is very important because it will help reduce the feeling of apprehension and build confidence at each step.

Ask any diver if they felt apprehensive at some stage during diver training and most of them will answer, 'yes'. It might have been a fear of feeling claustrophobic underwater, being rushed into doing a skill, using equipment they were unsure of, or entering different or more challenging underwater conditions.

3.2 PEER PRESSURE

DIVING IS A NON-COMPETITIVE SPORT.

Friends or partners learning to dive at the same time, would normally begin to challenge or criticise each other. This can negatively affect the less confident student or push the more confident student to become blasé. The student group needs to understand that learning to dive is not a competition and everyone learns at a different rate, and sometimes that slow and careful learners often become the better divers.

3.3 STRESS

Stress can manifest itself in different ways, such as the lack of concentration, anxiety or trying to over-achieve, and that can affect learning to dive or going diving. As instructor, you should help your students to relax, take things calmly and, above all, enjoy the process of learning. Generally, when people learn to dive, they find it can be a great stress reliever.

3.4 COLD

Getting cold in the water significantly reduces the concentration process. Therefore, during practical lessons, in confined or open water, you have to monitor students carefully to make sure they do not get chilled. This could be by reducing the time of the session. As an instructor, you have to know that students will vary in how they feel the cold.

3.5 PHYSICAL FITNESS

You must remember that your fitness level as an instructor, and being able to cope with varying conditions, is something you take for granted. You know the best way to carry kit, or swim on surface before descending.

As an instructor you need to understand your student's physical capability. You should monitor them closely and teach them the best methods to cope with the different diving conditions. An exhausted student, who cannot concentrate, will worry, get anxious and begin to panic, and this is the last thing you want before or during a training session.



4. THE QUALITIES OF AN INSTRUCTOR

To be able to dive, we must acquire a range of skills and knowledge that are not part of our normal experience. This is adequately provided by a qualified professional scuba instructor. Although, the term “professional” is usually associated with those who derive their living from teaching SCUBA diving, it is important to understand that there are also professional amateurs who teach for no reward other than the satisfaction gained from teaching others a sport they enjoy. Therefore, SCUBA instruction requires the same degree of professional expertise whether it was paid or unpaid.

The best way to learn anything is to teach it, and an instructor is someone who teaches, informs, and directs. Hence, an instructor must be able to convey knowledge and teach skills to varied groups of students. By applying this definition to the diving situation, we can start to understand what makes a good instructor.

It should be stressed that uncorrected bad habits learned during early training are very difficult to rectify. Moreover, the main cause of diving accidents is bad training. Bad training is caused by a bad instructor. A bad instructor is distinguished by:



- **BAD ATTITUDE**
- **LACK OF KNOWLEDGE**
- **POOR SKILLS**
- **LACK OF INTEREST IN THE STUDENTS**

Therefore, if you want to be a successful instructor, you should have the following qualities:

- **Good appearance;** an instructor should set an example to the class who may imitate him (look professional).
- **Excellent and extensive knowledge of the subject** you are going to teach. Your knowledge of diving theory must be both deeper and broader than that needed by your students, in order to successfully communicate the information to them. You must be able to satisfy all reasonable enquiries from your students. In some cases, you will be the first instructor to teach them, and you must be capable of answering their questions. Hence, the instructor should be a source of knowledge and know where to find additional information when needed.
- Instructors should ensure that their knowledge and teachings **are up to date.**
- Be keen to **keep Learning** and always seek new knowledge about diving.
- **Good practical skills**, and high-quality personal diving skills. As a scuba instructor, you must have complete personal mastery of all the basic practical skills related to SCUBA diving. The standards you apply to your own performance in activities such as assembling and putting on your equipment, finning, buoyancy control, etc. must be of the highest level.



- **Have motivation and enthusiasm.** To be able to teach your students a sport that you enjoy and wish to share with them, convey your own enjoyment and interest of the subject to the class. Within an exotic sport such as SCUBA diving, enthusiasm is relatively easy to convey, it will help the students to overcome fears when learning new skill and to master difficult theoretical concepts. Hence, a good instructor will do everything possible to cultivate this natural enthusiasm resulting from the potential to explore an unknown world.
- **Patience** is a key attribute for a scuba diving instructor to have. Teaching the same basic diving skills day after day, solving the same kind of problems and dealing with students with different attitudes, all this requires patience and persuasive encouragement. Although people are different, some teaching often happens almost identically every time. For example, teaching mask clearing needs pretty much the same briefing and demonstration, in addition to enough time for students to repeat it multiple times. Moreover, some students could get terrified when performing certain skills. You should approach these situations with a high degree of patience, calmness and empathy. It is these nervous students, who initially do not meet some performance requirements that will provide you with your most rewarding moments as an instructor as you see them develop and overcome their fears.
- A good instructor should **maintain the standards** especially when it comes to safety. It is your duty as an instructor to set an example for your students; therefore, it is essential that you maintain a high standard in your practice, which in most cases will be copied by your students.



A GOOD INSTRUCTOR IS A PERSON WHO HELPS STUDENTS LEARN THE SUBJECT AND RESPECT STANDARDS, ESPECIALLY IN TERMS OF SAFETY.

SO IT IS ESSENTIAL THAT YOU MAINTAIN A HIGH QUALITY OF PRACTICE, WHICH IN MOST SITUATIONS WILL BE COPIED BY YOUR STUDENTS.

- **Show understanding** of students' different attitudes and be helpful, adaptable and flexible.
- **Equality.** An instructor must treat all his students fairly and show no favoritism or bullying behavior towards anyone.
- In the classroom, **use simple words** and break down technical terms into simpler ones.
- Speak **clearly, slowly and loudly**, this gives everyone a chance to understand your words.
- You should maintain **eye contact** with all of the students. Talk directly to the class, not the notes, board, screen or a specific part of the class.
- Try to **bring some humor** to the lesson. However, if you do not have the ability to be funny, do not try.

- You should have excellent **punctuality**, that is to start on time and finish on time.
- **Show your students that they are valued** and that you care about their accomplishment. That is to follow up on any point raised in class, and make sure to inform them the following lecture if necessary. Also, announce your availability and willingness to help, either the class or individuals, at any time during the course.
- You should be aware of any student with a **learning difficulty** such as dyslexia, and make adequate provision for this person's participation.
- You should be able to **adapt the teaching to each individual Student**.
- **Cultural differences should be embraced and respected**, and if there are any language or communications difficulties arise, these should be handled sympathetically and sensitively to ensure safe and effective training.
- You should provide your students with a **safe learning environment** to ensure that the tasks required of them are within their capabilities and that they can carry out their training in a safe way.

► **WHEN GIVING CRITICISM (CRITICIZE ACTIONS NOT PERSONS):**

- Give your opinion in words, not with gestures or mimics.
- Be clear in what you say, do not try to hide the facts.
- Be objective and describe what should be done to solve the problem.
- Do not condemn or accuse your students.
- Do not talk about someone's faults with others.
- Avoid having persons present that are not part of the problem while discussing it.
- Avoid making a person feels angry, sad, threatened or scared.
- What you object to must be changeable otherwise criticism is unnecessary.
- You can tell anyone to take more notes but not to remember more.
- Avoid comparing an individual to others; this will only make them feel worse.
- Do not give negative criticism, but give mostly positive encouragement.
- Explain why you criticize: is it your personal opinion or is it something factual.

Finally, an instructor should keep a log of all the instructions given. The instructor's log is a record that the students have received the information. It is now a requirement for CMAS that each student signs to say the teaching has been given and they fully understand the contents.

The above list may seem daunting and hard but because you either want to become an instructor or are already qualified as an instructor, you probably possess most of these qualities already.



THERE ARE TWO ADDITIONAL ROLES OF AN INSTRUCTOR THAT ARE ALSO VERY IMPORTANT:

- ▶ **ASSESSING STUDENTS** : Integral to the process of progressive instruction is the instructors' ability to assess the performance of their students. (We will discuss that in details in chapter 5).
- ▶ **BEING A ROLE MODEL** : An Instructor is both a teacher and a role model in all diving and teaching practices, students will normally emulate their instructors, so:
 - Every instructor must ensure that his/her attitude is right.
 - Be confident of your ability to teach people.
 - Maintain good health and a valid medical certificate.
 - Practise regularly for all the skills that you may be called upon to teach.
 - All skills taught should be performed with ease, and all teaching should be carried out with confidence. Students will often imitate their instructor, especially if the instructor is viewed with high respect.
 - If you cannot perform a skill yourself, you will not be able to teach it.
 - If you are out of practice and having difficulty demonstrating a skill, your students will naturally assume that it will be more difficult for them to achieve, and any bad practices will be copied.

Accordingly, we can set the standards and requirements CMAS needs in its instructors :

▶ **CMAS ONE-STAR INSTRUCTOR (M1)(CF. STANDARDS)**

This training program aims at introducing experienced CMAS Dive Leaders to the basic concepts, principles and instructional techniques for diver education and training, which will enable them to present certain prescribed CMAS Diver Training Programs in a safe and competent manner.

▶ **CMAS TWO-STAR INSTRUCTOR (CF. STANDARDS)**

This training program aims at refreshing the knowledge of experienced CMAS One-Star Instructors with regards to the basic concepts, principles and instructional techniques, diver education and training, introducing them to the instructional techniques involved in teaching advanced, specialties, rescue and entry-level leadership Diver Training Programs, which will enable them to present these CMAS Diver Training Programs in a safe and competent manner.

▶ **CMAS THREE-STAR INSTRUCTOR(CF. STANDARDS)**

This training program aims at familiarizing experienced CMAS Two-Star Instructors with the basic concepts, principles and instructional techniques used in training CMAS Sport Diver Instructors, which will enable them to present the CMAS One and Two-Star Instructor Training Programs safely and competently.

All of this must be based on wide experiences gained from many different diving activities, conditions and situations over an appropriate period of time.

All of this will provide you with the necessary confidence to earn the respect from your students which is essential for effective learning.



**IF YOU THINK YOU ARE THE PERFECT INSTRUCTOR, THEN IT IS TIME TO QUIT.
A GOOD INSTRUCTOR NEVER STOPS WANTING TO IMPROVE, LEARN MORE AND
ACHIEVE MORE.**

KEY POINTS

➤ UNDERSTANDING HOW PEOPLE LEARN.

- ✓ RECEIVING INFORMATION,
- ✓ RETAINING INFORMATION,
- ✓ MOTIVATION,
- ✓ ATTENTION SPAN AND PROGRESSIVE INSTRUCTION

➤ UNDERSTANDING WHAT STOPS PEOPLE LEARNING

- ✓ APPREHENSION
- ✓ PEER PRESSURE
- ✓ STRESS
- ✓ COLD
- ✓ LACK OF PHYSICAL FITNESS
- ✓ FAULTY OR POORLY ADJUSTED EQUIPMENT

➤ THE QUALITIES OF AN INSTRUCTOR

- ✓ BAD ATTITUDE
- ✓ LACK OF KNOWLEDGE
- ✓ POOR SKILLS
- ✓ LACK OF INTEREST IN THE STUDENTS

➤ CMAS STANDARD M1/M2/M3





CHAPTER 2

TEACHING THE THEORY OF DIVING



CMAS

1. THE INSTRUCTOR TRAINING PROGRAM (I.T.P)

The methodology of the Instructor Training Courses is a combination of traditional lessons, where the instructor trainer is giving the coming instructors new knowledge, and of learning by doing. The traditional lessons should be carried out in an open and friendly manner, open to questions from the students, and ready to open discussions about any topic or issue related to SCUBA diving. .

This training program is divided into :

- ▶ **THEORETICAL LESSONS**
- ▶ **PRACTICAL LESSONS**

In the I.T.P there are three different types of activity :

- ▶ **CLASSROOM LECTURES.**
- ▶ **TRAINING SESSIONS.**
- ▶ **WRITTEN IN-CLASS TESTS**

This chapter will discuss different aspects of classroom teaching and the successful preparation of a theoretical lesson.

2. PRINCIPLES IN INSTRUCTOR TRAINING

Diving theory an integral part of all diving activities. In many cases, theories are linked to practical skills. For example, understanding the principles of pressure and gases, enables divers to appreciate what affects their bodies underwater, which increases their awareness when planning and executing a dive and their ability to avoid and solve problems underwater. Therefore, as an instructor, being able to effectively teach diving theory is essential and it is a must that you make sure that all divers should attend theory lessons.

In ITP, training sessions can take place in a classroom, pool or open water, where trainees are taking turns in role-playing, teaching each other diving knowledge and skills. This chapter will discuss the requirements for training sessions in the classroom, while in the next the next chapter will discuss training sessions in the swimming pool and open water.

3. TRAINING SESSIONS IN THE CLASSROOM

The classroom training session can be a full lesson (45-60 minutes), or a part of a lesson of at least 15 minutes. In these training lessons, each student is allowed to teach one specific topic (or part of it) concerning diving knowledge. Each student is given 20 minutes to teach his/her subject.

After each training lesson, the instructor trainer places himself next to the student who is performing the teacher's role in front of the group. Firstly, the instructor trainer asks the student if there is any problems he/she faced while teaching the lesson. Then, the other students are asked to give their feedback of comments about the teaching. They shall not be allowed to be sarcastic or rude. Only constructive suggestions for improvements are allowed. On the other hand, the student who is playing the teacher's role is not allowed to comment, but only to listen to his colleagues' comments. Any attempts to defend himself or answer back to his colleagues must be stopped immediately.



4. THE ESSENTIAL CRITERIA FOR AN EFFECTIVE THEORETICAL LESSON

To teach an effective theory lesson there are four essential criteria that should be achieved. They can be abbreviated as **PAVE** :

- **PROGRESSIVE** : the information should be presented in a logical, progressive manner.
- **ACCURATE** : the information presented should be accurate and up to date.
- **VISUAL**:teaching should be supported by appropriate visual aids.
- **EFFECTIVE** : the presentation should be effective. It should contain all the 'must know' information relevant to the subject and level of student.

There are also four distinct and important phases which lead to a successful theory lesson.



4.1 PLANNING THE LESSON

In the planning a theoretical lesson, we need to ask ourselves a series of questions:

▶ WHO ARE WE PREPARING THE LESSON FOR? (WHO IS YOUR AUDIENCE)

- What is their age group?
- Are they an average cross-section of the population;
- What is their education level?
- Are they novice trainees or experienced divers?
- Do any of them have special needs?
- How many students you will be teaching?

▶ WHAT WILL YOU BE TEACHING? (SUBJECT)

- What is the 'must know' information about the subject?
- Is this the first time students come across the subject of the lesson?
- What do students already know, and need to apply to their diving?
- What do the students need to know before the next lesson?

▶ WHY ARE YOU TEACHING THE LESSON? (PURPOSE)

If you are not clear why the lesson needs to be taught, you will not be able to tell your students why they need to learn it!

Clearly knowing the "why" will be part of your introduction to the session. For example, divers need a mask to help them to see underwater and open their eyes. However, what you can also teach your students is the importance of a proper dive mask specification so they would be able to buy one and know they what to look for and what to avoid.



ANSWERING THE (WHO) AND (WHAT) QUESTIONS WILL GIVE YOU A STARTING POINT FOR THE SUBJECT AND DEFINE THE SCOPE YOUR LESSON.

ANSWERING THE (WHO), (WHAT) AND (WHY) QUESTIONS HELP YOU TO DECIDE THE OBJECTIVES OF THE LESSON.

▶ WHEN ARE YOU TEACHING THE LESSON? (TIME)

- What time of day will you be teaching?

ANSWERING THE (WHEN) QUESTION GIVES YOU SOME INDICATOR ABOUT THE POSSIBLE RESPONSES OF YOUR STUDENTS:

- IF THE LESSON IS FIRST THING IN THE MORNING, THE STUDENTS MAY BE QUITE AND LESS RESPONSIVE SO YOU MAY NEED TO WORK HARD TO INVOLVE THEM AND GET THEM MOTIVATED.

IF THE LESSON IS DIRECTLY AFTER A MEAL, SOME MAY HAVE A TENDENCY TO FALL ASLEEP SO THERE WILL BE A NEED TO ENSURE GOOD VENTILATION AND PLENTY OF CLASS INVOLVEMENT IN YOUR LESSON TO KEEP THEM AWAKE.

EVENING LESSONS GENERALLY TAKE PLACE AFTER PEOPLE HAVE ALREADY COMPLETED A DAY'S WORK, BUT SOMETIMES THEY BE TIRED AND STRESSED, SO YOUR SESSION MAY NEED TO BE LIVELY SO THAT STUDENTS CAN CAN RELAX, HAVE FUN, AND, AT THE SAME TIME, LEARN SOMETHING NEW.

▶ WHERE ARE YOU TEACHING THE LESSON?

- How long will it take you to get there and set up your classroom?
- Make sure to allow yourself ample preparation time to set up your presentation before the students arrive.
- What furniture is already there?
- What visual aids are available? or what else do need for your lesson?

ANSWERS TO THE (WHERE) QUESTION WILL HELP YOU PLAN HOW LONG YOU NEED TO ARRIVE BEFORE THE LESSON TO PREPARE THE CLASSROOM.

▶ HOW WILL YOU BE TEACHING THE LESSON? (METHOD)

- What presentation style will you use?
- What visual aids will you use?
- What classroom layout will you use?

ANSWERS TO THE (HOW) QUESTION WILL BE DEPENDENT ON ANSWERING THE (WHO), (WHAT), AND (WHERE) QUESTIONS.



4.2 PREPARING AND STRUCTURING THE LESSON

Whatever time you have dedicated to the lesson, the main body of the presentation should take about 80% of the time leaving 20% for the introduction and the summary..

- Introduction 10%
- Main body 80%
- Summary 10%

➤ INTRODUCTION AND HEADLINES :

- Brief the students on what you are going to discuss during the lesson, and why!.
- Contents, goals and motivation.
- Expected gained knowledge and outcomes after the lesson.

➤ MAIN BODY (80%):

- This is basically the details under each of the headlines mentioned in the introduction.
- This should include any students' activities if applicable.

➤ SUMMARY (10%):

- Remind your students about the main points covered during the lesson.
- Recap the headlines and repeat important parts.
- The summary is also an opportunity to tell your students what the next progressive step is.
- Remind them about when the next lesson is.

4.3 EXAMPLE OF THE STRUCTURE OF A LESSON ON DIVING SIGNALS

➤ INTRODUCTION (10%):

Your introduction 'sets the scene' for your students.

Introduce yourself, and why you are teaching the lesson.

Brief the students on what they are about to learn, and why they need to learn it.

We cannot talk underwater, so all divers need a signal system to communicate with each other. Therefore, all divers in the group should be familiar with CMAS code of diving signals. Divers all over the world use these signals so it is a universal language. All signals should be clear, unambiguous and require a response.

➤ MAIN BODY (80%):

Keep the lesson's objectives in mind when developing your lesson contents.

Brief the students on your lesson is the main body of your presentation.

The lesson should be progressively structured (you should know how you can take the students from the known to the unknown).

- Topic: diving signals
- Sub topic: important points about signals
- Sub topic: underwater signals
- Sub topic: surface signals
- Review \ check: practice some signals together



➞ SUMMARY (10%):

Do not be tempted to add new information in your summary; it could be confusing to your students.

At the end of the lecture, ask your students some questions in order to assess their level of understanding. (ask questions to evaluation of theoretical knowledge):

Asking questions is a good way for getting the students to participate in the lesson. These questions can be formulated and used in different ways :

- General questions to the whole group
- Direct questions to a a specific person
- Pass-around-questions let everyone give their opinion in one minute.

It is important to follow the lesson's structure and subject when asking questions, otherwise it is easy to get distracted instead of moving on.

Students' assessment can also take different forms:

- Oral questions following each lesson.
- Small written test at the beginning of the next lesson to check if they remember the previous one.
- Writing assignments.
- A comprehensive test at the end of the course (we will discuss the evaluation techniques in detail in chapter five).

NOTE:





EXAMPLE OF AN A THEORETICAL LESSON



- **TOPIC :** “Today we are going to talk about marine life identification and zones “.
- **INTRODUCTION:** (Put your Name and Cert # CMAS – xx, on the white board) – let students introduce themselves)
- **TIME FOR LESSON ITSELF:** Hours: 30' Minutes
- **GETTING THE ATTENTION OF THE CLASS:** « “Have you ever seen marine life in a dive magazine and wondered, what is that and how do people find that marine life?” Today we are going to cover both of those subjects».
- **OBJECTIVE :** « So by the end of this lesson you will be able to identify two different species of marine creatures; vertebrates and invertebrates invertebrates, and the zones they can be found in, pelagic and benthic».
- **VALUE :** « By knowing the two basic categories of marine life, vertebrate and invertebrate, as well as the zones they can be found in, pelagic and benthic, it will be easier for you to identify them during a dive. Once you have a basic understanding of these, your knowledge of marine life will increase rapidly».
- **IMPORTANCE :** « When trying to locate or identify marine life it is important to know where they can be found and what they are».
- **OUTLINE :** « Please follow along using the marine life identification book and slates while I go through the slideshow. You can interrupt me at any time during the presentation if you have a question».
- **KEY POINTS :** Vertebrates, invertebrates, pelagic, benthic.



YOU SHOULD NOT EXCEED THE TIME ALLOWED FOR THE COURSE YOU HAVE PLANNED AND MOST IMPORTANTLY, YOU SHOULD NEVER OVERFLOW ON OTHER SUBJECTS.BE PROFESSIONAL AND FRIENDLY





PRESENTATION FORM FOR A THEORY COURSE



➤ TOPIC:

➤ INTRODUCTION:

➤ LESSON DURATION: HOURS:MINUTES

➤ GETTING THE ATTENTION OF THE CLASS :

➤ OBJECTIVE :

➤ VALUE/ JUSTIFICATION :

➤ OUTLINE / KEY POINTS :

DEVELOPMENT SECTION

Outline	Topic	Key Points
1-	Development section (explanation and diagram)	1-
2-		2-
3-		3-
4-		4-
5-		5-
6-		6-
7-		7-

SUMMARY SECTION

➤ REVIEW KEY POINTS :

➤ RESTATE IMPORTANCE:

➤ TEST OBJECTIVE:

➤ INTERACT WITH STUDENTS:

➤ ANNOUNCE THE NEXT LESSON :

BE PROFESSIONAL AND FRIENDLY



5. PRACTICING THE THEORY LESSONS

Following all the planning that has been done so far, and after "preparing the lesson, the visual aids, and the notes"; you then need to practice giving the lesson. As an instructor, you should be able to deliver the lesson in the best possible way. Hence, practice means making the best use of all your preparation:

5.1 BEFORE THE LESSON:

- Plan the lesson carefully
- Read the text
- Be in place before the others
- Plan as if everything might go wrong

5.2 DURING THE LESSON:

- Do not stand in the way of the board or screen.
- Let the students see pictures or objects for a moment before you start speaking.
- Be calm and speak slowly and confidently and try to listen to what you are saying.
- Do not show favoritism
- Do not persecute any individual who struggles to understand a point; people do not learn in the same way.
- If new information can be related to earlier knowledge, it is learned more easily.
- Concentrate on the things that students do correctly and let them elaborate on what they did wrong. If the students are able to know what they have done wrong, the answers will be more readily found.
- Avoid trying to correct all faults at the same time.
- Only give correct information, do not try to bluff, if you cannot answer a question, offer to get the answer after class, or next time.
- Have breaks: Do not speak continuously for more than 7 minutes, the students will lose their concentration, many and short breaks keep the students alert. Breaks doesn't necessarily mean that you go for a coffee, breaks can be a change of teaching method or an assignment that the students can discuss or solve by themselves. Relaxation exercises can also be used as breaks.

5.3 AFTER THE LESSON:

- Make notes of questions asked during the lesson
- Listen to the students' feedback
- Tidy up the premises and arrange your papers to make it ready for the next time.

5.4 LESSON TIMING:

- Setting the timing and duration of the lesson is important. You need to plan to fit your lesson into the allotted time or you might affect other sessions or the whole timetable during a series of classroom sessions.
- Once you have the lesson structure in place, you can go through it and think about how long each of your points will take to teach.
- Remember to allow time for students' participation and make a note of the timing on each section.
- It is a good idea to place a watch in a visible place as a reminder of the timing for the lecture.
- Once the lesson's structure and approximate timing are determined, you will have some idea of what visual aids you can use.

6. PRESENTING THE THEORY LESSON

The presentation is the tip of the iceberg and the result of all your hard work. Standing in front of a group of people and presenting, can be quite scary, particularly if you are not used to doing it. However, if you have planned, prepared and practiced, you will be on your way to make a good presentation that will motivate the listeners. Moreover, there are some things that you can do to help your presentation go smoothly.

6.1 PREPARE YOUR CLASSROOM:

- There is a variety of places to teach diving theory lessons, from a classroom environment to a live-abroad diving vessel, but the most probable teaching place you will use for the initial theory lesson will be a room. Your room may not be a purpose built classroom but it should have similarities to the real thing.
- The instructor should know where the lessons will be given and the facilities available. If it will take place in a location which you are unfamiliar with, you should try to do a reconnaissance in advance in case there may be difficulties and to make sure it has all necessary requirements, i.e. electricity outlets, sufficient light, enough seats etc.
- Always get to the classroom well in advance of the class. It is important to arrive at the place early to ensure you have time to set up the classroom and your presentation, and to confirm that any required facilities will work in the way that you have planned. so that when you begin your lesson everything will be in place, and also everything you need is readily available. Even if something happens that is totally outside your control, you will be able to deal with it, and also to greet the class and to record their attendance. Obviously, you can arrange for someone else to help you set up.
- If you are are using a dry wipe board, flipcharts or even interactive boards, check the availability of writing utensils and board cleaner (if applicable). The board should be cleaned to remove any information which may have been left by a previous presenter.
- If you require the room to be darkened, check the operation of the blinds or curtains and familiarize yourself with the location of light switches.
- If you are using a data projector, make sure it is working correctly.
- Ensure there is an adequate and comfortable seating. You should arrange the seating for the class to suit the facilities you intend to use and to ensure that all the appropriate facilities are visible from a seated position, and that there are no reflections from lights or windows.
- Remove or cover any distraction such as picture, posters and equipment that will prevent students from focusing.
- The most obvious position for you as an instructor is at the front of the class so that the students' attention is focused on you. However, some people do not like to sit close to people they do not know. Therefore, if the number of seats in the classroom is more than the number of students, you can remove some of the extra seating to discourage students from sitting far apart, and to bring them closer to you.
- Take care not to place a physical barrier between yourself and your students as this can also cause a psychological barrier to be formed.



6.2 CLASSROOM ENVIRONMENT SETUP:

- The ideal environment for an instructor teaching a group of students will be a well-lit, bright, well-ventilated room with good sound insulation (to prevent other sounds outside from distracting students).
- There should be an adequate space for enough comfortable chairs and desks, or table-arm chairs, where students can sit and take notes.
- There should be an area, to the front of the class, that can be seen by all students, where visual material and teaching aids are displayed.
- You should avoid conducting classes in open air as much as possible. However, only classes with a small number of students should be conducted in the open air. Remember, an indoor location will always give you greater control during a lesson.
- Comfortable room temperature is a must. Being too cold or too hot will affect the students' concentration.
- There should be an easy access to a toilet close to the classroom

6.3 BE CONFIDENT

- Remember, you know more about the subject than your students, but do not forget that you once had to learn the lesson you are giving. Putting yourself in your students place and interacting with them will help them realise that you are not only there to teach and help them but also to show how much you know and enjoy diving.
- Try to relax and be as natural as possible, a couple of deep breaths before starting your presentation will help.
- A modern well-equipped classroom can improve the instructors' confidence.

6.4 LOOK PRESENTABLE:

- Keep it simple. What you wear is important because it could affect the students' concentration. A t-shirt with a large design or lots of wording can become a major distraction and draw the students' attention away from the lesson. Also untidy or dirty clothes could have a negative effect. You do not have to dress formally to look neat and tidy. However, untidy or dirty clothes not only are a distraction but also do not show much respect for your students.

6.5 MINIMISE INTRUSIVE MANNERISMS AND BAD HABITS:

- We all have mannerisms, and we bring these into the classroom when we teach. There is no problem with this, but beware of bad habits, which could become a distraction for your students as they could focus on it rather than on the lesson.

7. THE COMMUNICATION PROCESS

► USING YOUR VOICE (THE SPOKEN WORDS):

That includes the use of voice level, tone and pitch in different variations.

We have to differentiate between the Spoken Language used for teaching a class and the Technical Language used for specific terms and expressions. For giving a lesson you to choose a language which is understood by everyone in the audience and mastered by yourself. You have to speak loud and clear, so so that the students get the feeling that the message you are bringing is important.

If you are normally a fast talker try to speak more slowly. Practicing really helps with this so do not start your class until you are completely ready. Take a good breath and begin.

It is a good idea to make variations in your voice during the lecture, i.e. avoid being monotonic. This helps drawing the attention of students who might be losing interest. It also helps you emphasize important details in the lesson. Hence, it makes the lecture more worth listening to.

Remember, never talk to the students while facing the board, normally you do not turn your back to someone you are talking to.

► BODY LANGUAGE:

Another language that is even more important than the spoken language is the body language.

EYE CONTACT: when you are setting up a classroom, make sure you will be able to have good eye contact with everyone in the class.

- Keep eye contact with all the students
- Speak to the whole class
- Let the students feel that you are speaking directly to them
- Show confidence by looking the students in the eyes
- Make the students feel that your message is meant for each and every one of them.
- Keeping eye contact with your students means that each student will feel personally involved with your presentation and this maintains their concentration and interest.
- If you see someone is looking puzzled, you can stop and ask a question or recap a particular point to ensure they understand before moving onto your next point.
- If students are getting restless or beginning to nod off, it means that you have lost their concentration. This could mean that you were concentrating on just one or two of them and ignoring the others who will rapidly lose interest or being to feel ignored.
- Moving your eyes around in the classroom, seeing all the students and moving around in a room makes the room belongs to you.
- Do not sit behind the desk all the time; it creates an unnecessary distance between you and the students and it makes you seem insecure.
- Move around the classroom; it makes you seem more in control. Make sure you do not block your visual aids.
- Do not sit behind the desk all the time; it creates an unnecessary distance between you and the students and it makes you seem insecure.
- Move around the classroom; it makes you seem more in control. Make sure you do not block your visual aids. Involve the students in your presentation, however, do not force anyone to participate



► WRITING:

Using writing for communication can be in two different forms:

- Writing on the board as part of your lesson
- Writing on paper for the students' handouts

The first type generally does not represent a problem because you are there to ensure that the students are receiving your message like you want it, and to explain to them any points that might be unclear.

In the second type you must be very careful because the handout can be reread a long time after the lesson, or by someone who was not present at the lecture. So you do not get the feedback and you will not know if the communication was successful. The handouts provide the text of the lesson so that students will have some material to take home. Therefore, it is preferable that you use the handouts and material already provided by your federation or diving organization.

8. THE QUESTIONING TECHNIQUE

Instructors use questions during and at the end of the theory sessions to ensure for successful transfer of knowledge. You need to know whether your students have understood what has been taught before they move on to the next step. If you are going to ask questions, you need to plan them as part of your presentation. The types of question used could be:

- **OPEN QUESTIONS**, which generate active discussions and good responses. An open question could have many answers. It generally begins with What, when, Where, How and Why.
 - For example, what weather conditions are suitable for diving?
 - Try to use this type of questions in your lessons, it will help engage your students and assist you monitoring the progress of your students during the class and at the end of it. Therefore, when asking questions, use an open question addressed to all the students so that each one of them will start thinking about the answer.
 - On the other hand, never put a student on the spot or pick on an individual to answer a question. He/she may be immediately afraid of getting it wrong or not wanting to look stupid. Accordingly, other students will be trying to avoid eye contact with you so that they do not get put in the same position.
- **CLOSED QUESTIONS** have only one answer, so it limits the response to a single word or YES/NO. Closed questions generally begin with (can, are, will, do, have, does e.g.). For example, "can pressure affect the eardrums?", or meaningless questions such as "do you see what I mean?" These will usually invoke either a nodded response or a "yes" from the students, which is totally meaningless.

9. PLANNING AND PREPARING AUDIOVISUAL AIDS

It is believed that we are able to retain about **50%** of the information we see and hear and **70%** of what we discuss, while we retain **20%** of what we only hear. Therefore, if a lesson includes visual aids and discussions, students will be able to retain most of the information they receive. .

On the other hand, studies show that the level of information we retain decreases with time. So, after three hours, we remember **70% of verbal information** we received and 85% of audio visual information; while after three days we retain only **10%** of the verbal information while we retain **65%** of information received through audio visual means.

- Visual aids are used to elaborate spoken words, to increase their impact and to make the information more memorable.
- The use of visual aids in diving lessons is essential to keep the students engaged and to help them retain the information.
- Visual aids can be a very powerful tool to enhance the impact of your presentations. The spoken words alone rarely achieves the desired result.
- The best way to ensure your message is understood is to use words with good visual support. By using visual aids in your lecture you ensure a better communication of your message to your students.
- The purpose for using visual aids is to get the message across, and the effective visual aids will significantly improve comprehension and retention.

The following section will discuss different types of visual aids which can be used in diving lessons depending upon the facilities provided and the type of lecture to be given (indoors / outdoors, practical / theory).

► WHEN TO USE VISUAL AIDS:

Words and images can be used throughout your presentation from the introduction to the conclusion. Think about using visual aids to :

- Introduce your lecture topic
- Display the title of the presentation
- Define particular technical terms
- Indicate the structure to your presentation by listing your main points
- Display an image which encapsulates your theme
- Elaborate your main points
- Highlight new points with an appropriate image or phrase.
- Indicate sequence by linking points together
- Conclude your presentation
- Summarise your main points
- Present conclusions in a short phrase or image (e.g. never hold your breath)

10. DISTRACTION IN THE CLASSROOM

To be able to develop a good presentation you should make sure that distraction in the classroom is prevented since students can be distracted in many different ways:

► VISUAL DISTRACTIONS

- The most powerful distractions are visual. Anything on display such as wall charts or posters positioned behind you or within the field of vision of the students should be removed or covered up.
- When using your own visual aids, keep them out of sight until they are required. Bulky items such as pieces of equipment which are too large to place entirely out of view will need to be covered.
- If the lesson is being conducted in outdoors (ex. by the beach), make sure it is away from visual distractions and disturbance (e.g. Beach users).
- One of the major visual distractions can be you, the presenter. Make sure that your mannerisms or appearance will not become the focus of the students' attention.

► NOISE

- Students talking during a presentation can cause distracting and irritating to the others. Hence, ask them politely to stop until the lesson has finished.
- The outside noise is usually more difficult to control. However, closing any open windows or doors may help to reduce the noise level.
- If there is a penetrating noise during your presentation; rather than trying to shout above the noise, it is best to stop talking until the noise has receded.

► CLASS ENVIRONMENT

- Make sure that the class environment is convenient for the whole duration of the lesson.
- The room temperature and lighting have to be adequate.

11. TYPES OF VISUAL AID ?

There are many types of visual aid that instructors can use. Your choice might be determined by the class venue and the topic you are discussing.



IN A THEORY LESSONS, THE NUMBER OF STUDENTS COULD VARY ACCORDING TO THE CHOSEN VISUAL AID. HOWEVER, IN PRACTICAL LESSONS, THE DETERMINED CMAS STUDENTS/INSTRUCTORS RATION MUST BE RESPECTED.



► REAL OBJECTS:

Using real objects (diving equipment, ropes, cameras, etc) links theory to practice, however, there are some points that you need to consider:

↻ GROUP SIZE:

- It is suitable for a group of to 12 students

↻ ADVANTAGES:

- The real thing can show students how big, how heavy and what an object feels like.
- With diving equipment, your students will be interested to handle the object.
- You can start to teach practical skill in a classroom.

↻ DISADVANTAGES

- It can become a major cause of distraction.
- There is a great potential to lose control of the class.

↻ INSTRUCTOR TIPS:

- Use real objects in conjunction with a diagram or model.
- For small objects, such as masks and fins, you can allow your students to handle them and pass them around.
- For slightly larger objects that are too difficult to pass around, you could display and discuss its different features.
- In any case, avoid moving on to the next part of your presentation until all students have had a chance to handle or feel what was being shown.

► MODELS:

In some classes, for example when explaining CPR, life-size models (dummy) are the best way for demonstration and safe practice of the methods and techniques.

In other classes, for example when explaining the relation between pressure and volume, a balloon can be used effectively to demonstrate the effect of pressure on the lungs.

However, some points to consider when using models are:

↻ GROUP SIZE:

- The number of students should be considered when selecting the model that will be used so that everyone can see it and/or practice.

↻ ADVANTAGES:

- A simple model can be used effectively to link diving related information to everyday activities. For example, opening the bottle of clear fizzy liquid can be used to demonstrate how gas releases from a liquid when the pressure is reduced. hence, it can be used for explaining the theory behind Decompression Sickness (DCS).

- A model can provide students with a perspective they would not normally experience. For example, a diving cylinder cut in two, can show wall thickness, or evidence for corrosion, which is normally something that students would not see.
- Models might require ingenuity and expenses to produce, but once they are made, they should last for a long time.
- Real objects and good models, which demonstrate basic principles, are valuable teaching aids which help keep your students interested.

➔ DISADVANTAGES:

- Some models can take a lot of time to prepare, or could be complicated to make.
- Some models can be too exciting so that they become a distraction to the class, for example the use of VR goggles.

➔ INSTRUCTOR TIPS:

- Keep it simple, this is very important.
- Ensure the model is in a working order and you have practiced its use.
- Check the model is functioning correctly just before the presentation
- To avoid it being a distraction, hide or cover the model before you need it during your lesson and hide or cover it again after use.

➔ WHITEBOARDS:

- The use of whiteboards in teaching is probably the most common method. Whiteboards are particularly useful for building up a logical sequence of the information, for schematic drawings, and as an immediate medium for students' participation (writing down your students' contributions).
- However, to use it effectively, you will need to practice regularly as it requires a fairly high degree of skill to use.
- When using a whiteboard, you shall organize your text in a clear way, so students that might be coming late to the lecture, have a chance to understand what is going on.

➔ GROUP SIZE:

- Suitable for a group of up to 30 students, seated at a maximum distance of 5 meters from the board.

➔ ADVANTAGES:

- Most school\ college classrooms will have one.
- Ideal for listing bullet points, and correcting mistakes.
- Ideal for drawing up simple diagrams
- Inexpensive to use; all you need is a whiteboard, markers and an eraser.
- Some whiteboards are movable, hence they are flexible to use and can be moved from one location to another.



➔ DISADVANTAGES:

- Writing must be clear and legible.
- Misspelling can be a major distraction for some students.
- A whiteboard does not clean so easily as they age. Hence, residue marks will detract from the effectiveness of this visual aid.
- Writing information onto the board is generally time consuming. Therefore, you must be careful with planning your lesson otherwise your presentation will be less professional.

➔ INSTRUCTOR TIPS:

- Make sure your handwriting is clearly legible.
- Pay attention to spelling mistakes.
- Divide your table into 3 parts (Title, development and conclusion).
- Do not use too many colors.
- Do not talk while facing the board, face your students while talking to them.
- Do not erase what you have written on the board until you are sure that the students are done with it.

▶ FLIP CHARTS

A flip chart could be prepared in advance with required information and can be reused. Alternatively, it can be used by the instructor for writing during the class.

➔ GROUP SIZE:

- Suitable for groups of up to 20 students, sitting no more than 5 meters away.
- Flipcharts and posters can be prepared in advance, and they are portable and ideal for outdoor use.
- Use A1 size papers for a clear presentation; however, smaller size A2 and A3 can be used on portable displays for smaller classes of 4-5 students.
- Writing and diagrams should be in bold, clear, neat and easy to read.

➔ ADVANTAGES:

- Flipcharts are portable and relatively inexpensive and easy to find in stationary shops.
- More than one flipchart can be used in the same class to display different information simultaneously.
- In addition to writings, flipcharts can accommodate computer-generated diagrams or drawings on smaller pieces of paper which can be attached to the flipchart.

➔ DISADVANTAGES:

- As they age, flipcharts tend to get worn faster than most other forms of visual aid and it is very easy for the pages to be torn or become ragged.
- Depending on the quality of the paper and the strength of colors used, it is sometimes possible to see through the paper to the next sheet, which can be confusing.
- There might be a tendency to face the flipchart when talking rather than facing the students.

➤ FLASHCARDS

Flashcards are pieces of paper or cardboard which are prepared in advance to the lesson. They carry key words, diagrams or illustrations which are then fixed to a wall or a display board. Computer generated graphics can be printed directly onto the cards or onto a piece of paper that can then be glued to the card. The cards are prepared and arranged according to the sequence of the presentation. They are then orderly displayed on a board to avoid confusion. They may be held in place using pins, magnets or Blu- tack.

Flashcards are very effective visual aids but great care is required for their preparation, use and display.

➤ GROUP SIZE:

- Suitable for groups of up to 15 people, sitting no more than 5 meters away.
- The number of the cards used vary according to the topics discussed.

➤ ADVANTAGES:

- The main advantage of flashcards is that they can be used on any clean surface i.e. a wall, side of a filing cabinet, or even a door.
- Ideal for building up a presentation and for simple diagrams.
- Relatively inexpensive to use.

➤ DISADVANTAGES:

- Flashcards need careful storage; as frequent use will wear them.
- It is difficult to put a lot of information or a large diagram on one card.

➤ INSTRUCTOR TIPS:

- Use colored card or text to denote topics and sub topics, bullet and sub-bullet points.
- Remember that lighter colored lettering works better on a dark background, dark colored lettering works better on white background.
- During preparation, use a pencil to produce the complete card before adding more permanent markings, this allows spelling to be checked and the layout of the card to be assessed and changed if necessary.
- Make the text large enough to be seen by the students at the back of the class. For an average size class of up to 15 students the letter height needs to be at least 7.5 cm (3 inches).
- Lay out the flashcards in the order they will be used.
- To avoid students trying to see what is coming next, lay them face down but write on the back of each card what it shows on the front. Keep any writing small and neat and only visible to you.
- Remember to face your class to maintain contact when you have finished putting up a flashcard.
- If using Blu tack, this should be removed before storing the flashcards to prevent them from sticking together, an alternative is to store them with pieces of plastic sheet between each flashcard.



► COMPUTERS AND PROJECTORS

Personal computers are excellent means of producing visual aids. A number of specialised software is available for this purpose, which offers excellent presentation quality and reasonable ease of use (e.g. Microsoft PowerPoint and Flash).

↪ GROUP SIZE:

- Suitable for groups of any size.

↪ ADVANTAGES:

- Very mobile; both laptops and projectors are relatively small and compact.
- Allow teaching a large group of students at the same time.
- Relatively easy to produce a very professional looking presentation.
- Using a wireless mouse gives you the freedom of controlling the presentation without approaching the computer which minimises distraction.
- Presentations can be saved and transferred between computers easily.
- Presentations can be modified, enhanced and updated as needed.
- Presentations can be very impressive and can include sound and videos.
- Videos can be stopped or replayed to allow discussions.
- Videos can be edited so relevant parts are kept and unwanted parts are discarded.

↪ DISADVANTAGES:

- The main disadvantage of this method is cost.
- For indoor use only.
- Darkened room not convenient for taking notes.
- Difficult to combine with other visual aids.
- Takes a lot of time to prepare, film and edit.

↪ USING VIDEOS :

- Never let a video replace your teaching. Use it to support your teaching and instructions.
- Make sure that the video presentation reflects your training objectives.
- You must check the video before the lesson to make sure it is operating properly.
- Knowing how to play the video to suit your own teaching style is important (freeze frame and re-run, according to your lesson plan).
- Do not leave the classroom while your students are watching a video, stay with them so you can monitor their reactions and answer any questions.
- You can use a laptop on its own with small group, but with larger group you will need a monitor or a white screen and projector.

➔ COMPUTER PRESENTATIONS :

- Plan a simple color theme throughout your presentation and keep it the same for each slide (maintain consistency of your presentation's color and style).
- Avoid unnecessary animations and sound effects.
- Store the original presentation file on your hard disk, so you can easily edit any slide for any future event.
- When projecting your presentation, make sure that you are not blocking the screen from any of your students, so you need to consider that when arranging your classroom.

➔ USING TEACHING MATERIAL PROVIDED WITH THE INSTRUCTOR MANUAL:

- Teaching material/visual aids that are provided with instructor manuals normally address the lesson planning and include the main presentations. However, you still need to think carefully about the planning and choice of presentations.
- When material is readily available there is a tendency to think that all the work is ready, but as soon the presentation starts it becomes obvious, to the instructor and the students, that this is not enough.
- So, to present the lesson successfully, you need to review the teaching material, practice the presentations and make any necessary modifications.

➔ PREPARING YOUR PRESENTATION:

There are many common features that are applicable to all presentations. Hence, when you re preparing your own presentation you should:

➔ SIMPLICITY:

- Keep it as simple as possible. Too much information can become confusing and thus distracting for students.
- Use a buildup technique, so students can concentrate on one points at a time.
- Avoid the use of any unnecessary animation and sound effects in the presentations. Also use simple slide transition and make it consistent throughout the presentation.

➔ FONTS:

- The correct choice of font will make your presentations clearer, easier to read, and therefore, help to convey your message more effectively.
- Sans-serif fonts such as [Helvetica](#), [Arial](#) or [Times New Roman](#) are most suitable to be used in presentations as they are easier to read when viewed from a distance.
- For handouts it is better to use [Times New Roman](#).
- Decorative fonts should be avoided as they can be difficult to read.
- The font size used should not be less than 30 points, so it would be easy to read.
- As a principle, you can use the 6X6 rule for preparing your slides (6 lines in a side, 6 words in a line)



- Try to avoid using more than two different types of fonts in your presentation, if additional emphasis is required you can use, for example, use **bold**, *italics* or underline.
- You should only use **UPPER CASE** Letters for headings.
- Take care when using **UPPER CASE** letters, if the text is long that will be tiring to read and the impact will be lost.
- Before you start, decide the fonts, style and size you want to use for your titles, subtitles, bullets and so on, and then use them **CONSISTENTLY** throughout your presentation.

➔ SIZE OF TEXT :

- Words must be legible for all the students to read, so the size of class will obviously dictate the size of visual aid and how big the lettering needs to be.
- Text size should be **36** or more for headings, **28** for main bullet points and **24** for normal text. Going below 20 would make it difficult to read.

➔ COLOUR :

- Colours add impact and clarity to your presentation. It can be used to emphasis text or images.
- You can use it to highlight or emphasise particular points.
- Keep the colour system as simple as possible; using too many colours can be confusing.
- You can use **Red** to highlight things to avoid, and Green to highlight things you can do. This is a color code we see in everyday life.
- When combining colours, you need make sure that they complement each other, and that letters are easy to read. For example, a dark blue background with light text "**white or yellow**" or coloured and light background with black or dark text work very well.
- You have to avoid some combinations of colours such as blue background with red text, which is difficult to read. Also combining red and green can be a problem for a number of people who are **red\green colour blind**.
- Plan a colour code for that whole presentation. For example, one colour for headings, and another color for the bullet points, etc.
- If you are using a photograph as a background for your presentation, check that it not distracting, and that the text colour does not merge into parts of photograph making it difficult to read.

► **CLASS FORMAT :**

Your classroom can take different forms such as:

► **FORMAL PRESENTATIONS**

- A formal presentation can be given to any number of students.
- In case of a large number of students, interaction and class involvement could be limited, and harder to control.
- There should be a screen positioned in front of the students
- Students are to be seated comfortably in rows to be able to see the instructor and visual aids.
- A larger group means that some students could be sitting away from the instructor and the visual aids. That will require you to speak louder to ensure that your voice is heard. Also you should make sure that the text and images of your presentation are clearly visible to everyone.
- Ideally desks or chairs with arm tables should be provided for students to use for taking notes.
- If practical aspects are involved, effective instruction will be impossible for a large group. Accordingly, students have to be divided into smaller groups to cover the practical training. Each group has to be supervised by an instructor.

► **WORK GROUP:**

- A workgroup is useful to teach practical/hands on topics.
- It is suitable for up to 6 students.
- Good for interactive teaching for topics such as: the assembly of diving equipment, rescue skills, CPR, reading navigational charts, etc.
- It requires careful control over the class. When the subject is exciting, students tend to want to discuss all at the same time.
- It could be difficult to work with the whole group at the same time.
- It requires comfortable environment and adequate workspace.



► DISCUSSION \ FEEDBACK SESSIONS:

- Suitable for a medium sized group of 5-25 students.
- There is a good potential for getting everyone's input and feedback.
- Group discussions make an interesting break between periods of more formal instruction.
- Discussions might take longer time than expected, so you need to keep track of time.
- It requires a comfortable environment and good ambiance.
- It requires a suitable room layout to encourage input from all participants.
- You have to be able to see and hear all students.
- Discussions need careful preparation and coordination from your side.
- This technique is most effective when the topic chosen is controversial or has aspects on which different opinions can be expressed.
- There is little value in discussing factual information; however, expression of opinion could bring out more useful facts.
- Involving students in discussions is an effective way of teaching.
- Informal atmosphere is essential to encourage students to ask questions and express opinions.
- Students are often hesitant to express their opinions in front of others, especially in a large group. So you need to split up the class into small discussion groups.
- When there are only 3 or 4 students in a group, expressing opinions is far easier and it also allows each member to contribute and build their confidence.
- Each group should have a chosen leader who can initiate the discussion by a brief survey of the topic and an indication of some aspects worthy of consideration.
- The group leader can then ask a question to the group members. This must be a question that needs a statement of opinion and not a straight "yes" or "no" answer or the discussion will terminate there and then.
- The task of the group leader is to keep the comments within the main theme, to keep ideas flowing and to add information if necessary.
- The leader must wisely control the contributions and ensure that one or two individuals do not dominate the discussion.
- It is essential that members are stopped from cross-talking among themselves.
- The leader must be prepared to collate the students' views and summarize the opinions expressed.
- Generally, this method works well with more experienced divers and a good instructor.



SUMMARY OF KEY POINTS

⇒ SUMMARIZE THE KEY POINTS OF THE CHAPTER 2 ?

A large rectangular area with horizontal dotted lines for writing.





CHAPTER 3

TEACHING PRACTICAL SKILLS



CMAS

1. TEACHING PRACTICAL SKILLS

In order to get be certified as CMAS divers, students have to obtain a certain amount of knowledge and to acquire specific skills. This can be developed in two ways:

- ▶ **THROUGH THEORETICAL LESSONS, WHICH WE DISCUSSED IN A PREVIOUS CHAPTER.**
- ▶ **THROUGH PRACTICAL TRAINING, WHICH WE WILL DISCUSS IN THIS CHAPTER.**

SCUBA diving is primarily a practical activity, however, it requiring a combination of knowledge and skills, which together build good techniques and practices. Obviously, diving involved many practical skills, which are not only used while diving, but also other during other related activities such as boat handlings and position fixing. Therefore, to be a good diving instructor you must understand how skills are acquired and how to transfer your knowledge to the students in that respect.

As divers, we plan ahead for any dives. Our planning and preparation have to assess the risk associated with diving in order to reduce that risk as much as possible. This is achieved by proper dive planning. On the other hand, as instructors, you must consider the level and experience of your students to ensure their safety, wellbeing and success.

2. RISK ASSESSMENT

Risk assessment is an integral part of students training. As instructors, we are obliged to care for your students, so we must put ourselves in their place and understand the limitation of their experience when compared to ours. This will help us to judge whether or not the students are ready to progress in their training.

Accordingly, the risk assessment made by an instructor prior to a training dive should take into consideration :

- ▶ **THE SKILLS THAT WILL BE TAUGHT**
- ▶ **THE TRAINING ENVIRONMENT AND CONDITIONS**
- ▶ **THE EXPERIENCE OF THE STUDENTS**

Diver training programs aim to train students to dive preventively, that is to be able predict and preempt problems. For example, the risk of running out of air is covered when teaching the importance of dive planning, gas consumption, buddy check, and emergency procedures.

On the other hand, as instructors, we have to assess the possible risks of teaching practical diving skills..

- **Example**, when teaching “Mask Clearing” for the first time, the risk assessment should consider the possibility of a student choking, coughing or even panicking during training.
- When teaching “Controlled Buoyant Lift CBL” in the pool, the risk assessment should consider that :
 - This is one of the last skills to be taught to a novice diver
 - Students should be confident in using a BC and in their basic diving skills, such as mask clearing and regulator recovery before proceeding to CBL
 - The depth of the pool should be considered, so the skill should be practiced and mastered at the shallow end before it is practiced at the deep end.
 - Since you are preparing the students to master this skill in open water, it is essential to for them to practice the skill during their open water class after mastering it in the pool.
- Before teaching a practical session, always ask yourself :
 - Are you prepared and fit to teach the session?
 - Are the water conditions suitable for teaching students of this level?
 - Are the students ready to progress their skills further?



ALL DIVING SKILLS SHOULD BE AT FIRST TAUGHT IN SHALLOW, STANDING DEPTH WATER, WITH VERY LITTLE OR NO WATER MOVEMENT, SO THAT ANY PROBLEM CAN EASILY BE RESOLVED BY THE STUDENT SIMPLY STANDING UP.

- Before teaching any skill, a risk assessment should be written down and shared with the students.
 - This would provide comfort and safety for the students.
 - It will help the instructor predicts and prevents any problems that might arise.
 - If anything goes wrong during training, the instructor could be called upon to explain what, how, why and were he/she was teaching, why and where; hence, a written risk assessment can be used as a supporting document.



WHEN TEACHING PROFESSIONALLY, DEPENDING ON WHERE YOU ARE IN THE WORLD, LOCAL REGULATIONS AND BYLAWS MAY ALSO AFFECT THE RISK ASSESSMENT PROCEDURE.

AN INSTRUCTOR MUST ALWAYS BE PREPARED TO ADAPT THE DIVING PLAN AND KNOW THAT THE CONDITIONS UNDERWATER VARY CONSTANTLY AS INDEED MIGHT THE CONFIDENCE LEVEL OF STUDENTS

3. PRACTICAL LESSONS

The principles that we used previously to plan theoretical lessons apply equally to practical teaching. Accordingly, we should go through the same process of PPPP.



3.1 ESSENTIAL CRITERIA FOR EFFECTIVE PRACTICAL LESSONS

To plan, prepare, practice and present a practical lesson, you should always bear in mind the essential criteria for a successful practical training (**STEP**) :

▶ **SAFE**

- The lesson should be safe for students at their stage of training.

▶ **TECHNICALLY CORRECT:**

- The skill should be taught using instructor demonstrations that are performed accurately with up- to date skills.

▶ **EFFECTIVE:**

- after a demonstration, students mimic the skill. Student performance is analyzed and any faults identified and corrected using further demonstration \ mimic cycles.

▶ **PROGRESSIVE :**

- The lesson builds logically on each previous step.


3.2 THE PROCESS OF PRACTICAL LESSONS (PLAN - PREPARE- PRACTICE - PRESENT):

▶ **PLANNING A PRACTICAL LESSON:**

- Preparing the lesson plan is very important, it makes your presentation of the lesson more effective.
- Prepare the training aids. It means that while planning you select the training aids; accordingly, you have to prepare them before the lesson.
- There are some question you have to answer before preparing your practical lesson. These are the same questions for planning the theoretical lesson. (see chapter two):
 - **Who are the students?**
 - **What is their skill level?**
 - **Why are you teaching this lesson?**
 - **When will the lesson be taught?**
 - **Where will the lesson be taught?**
 - **How are you going to teach the lesson (the teaching method)?**

► **INSTRUCTOR-TO-STUDENT RATIO:**

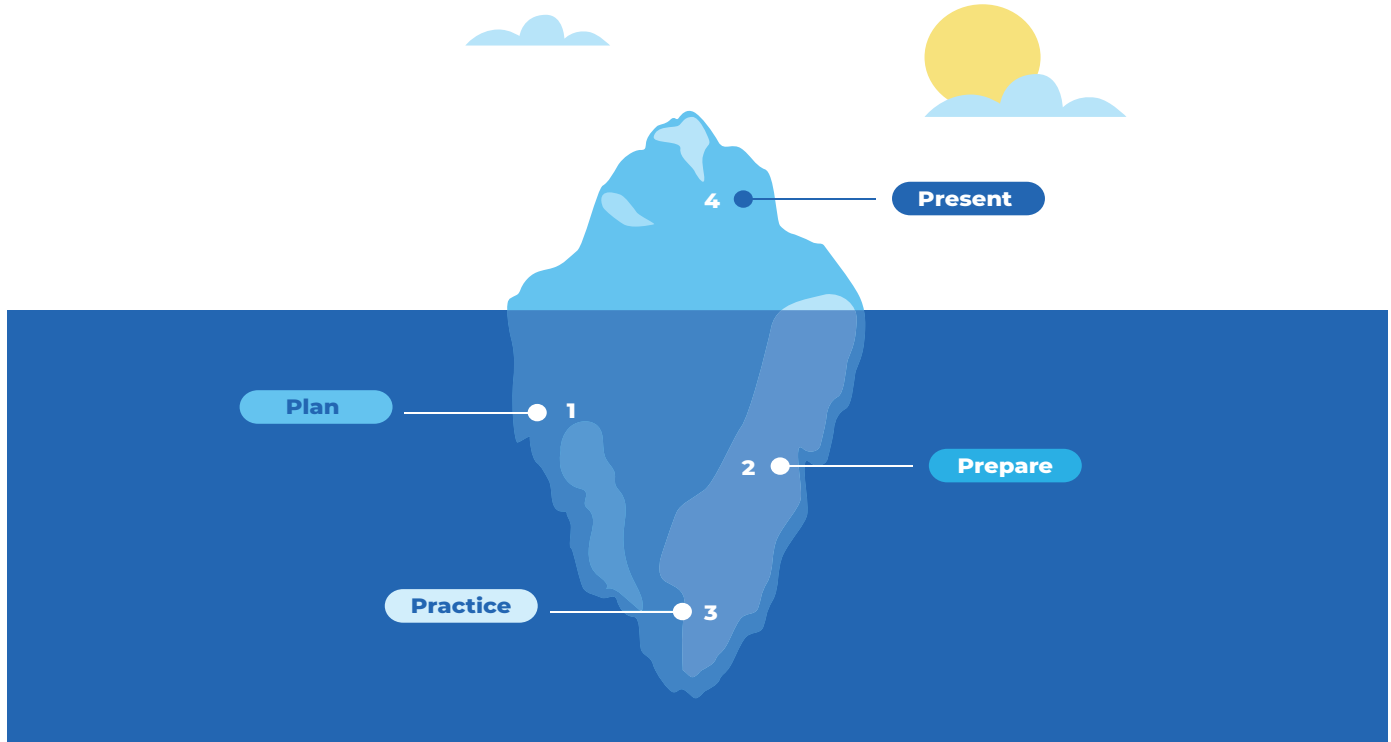
- As a part of you planning for practical sessions, you should consider the instructor-to-student ratio.
- Class size depends on the activity performed. So, for surface skills such as snorkeling or swimming, large groups of **6-8** students can be taught effectively by one instructor, and maybe an assistant to help with demonstrations and corrective instructions.
- Although large groups can be taught, it should be remembered that their progress and final quality may be lower, because you cannot give each student the individual attention they may require.
- For underwater skills, ratios of **2:1** and **4:1** are generally considered to be the most effective, even under ideal conditions.
- Although **1:1** instruction may be considered ideal in some cases, but there are some disadvantages to that. For example, an important part of scuba training is to develop the buddy system, and this is hard to achieve with one student. Also, the one student would lack the sense of competition.
- As depth increases, conditions become less favorable for students with little experience. In this case, ratio will need to reduce so that training effectiveness and safety are not prejudiced.
- For some lessons, safety considerations will dictate the ratio of **1:1**. Such circumstances could include first deep dive or even a simple skill taught in poor visibility.
- Even for **1:1** lessons, depending on the skill being taught, you may require another person to demonstrate on and for your student to practice on. For example, rescue skills, such as rescue lifts, tows and rescue breaths, another person is required, as the students should not practice on you, it is not only less effective but you risk losing control by being involved as a 'casualty' rather than monitoring and controlling your students.



CMAS STANDARDS ALLOW INSTRUCTORS TO STRUCTURE COURSES ACCORDING TO THE NUMBER OF PARTICIPANTS, THEIR SKILL LEVEL AND THE DIVING ENVIRONMENT. THE RATIOS ARE A GUARANTEE OF SAFETY AND QUALITY IN A TRAINING COURSE.

3.3 PREPARING A PRACTICAL LESSON

Nine -tenths of your work goes into preparation and remains unseen. One-tenth emerges as your presentation.



► DEFINING THE LESSON'S OBJECTIVE(S):

The lesson objective is the reason you are giving the lesson. It is what you want your students to have achieved at the end of the session. It may be to introduce a completely new skill, or to practice an already learned skill and to progress on to the next stage. So, it could be that you want your students to:

- **BE ABLE TO CORRECTLY.....**
- **HAVE STARTED TO DEVELOP.....**
- **BE COMFORTABLE.....**
- **HAVE COMMENCED DEVELOPING.....**
- **HAVE DEVELOPED.....**
- **BE COMPETENT WITH.....**
- **BE ABLE TO USE.....**

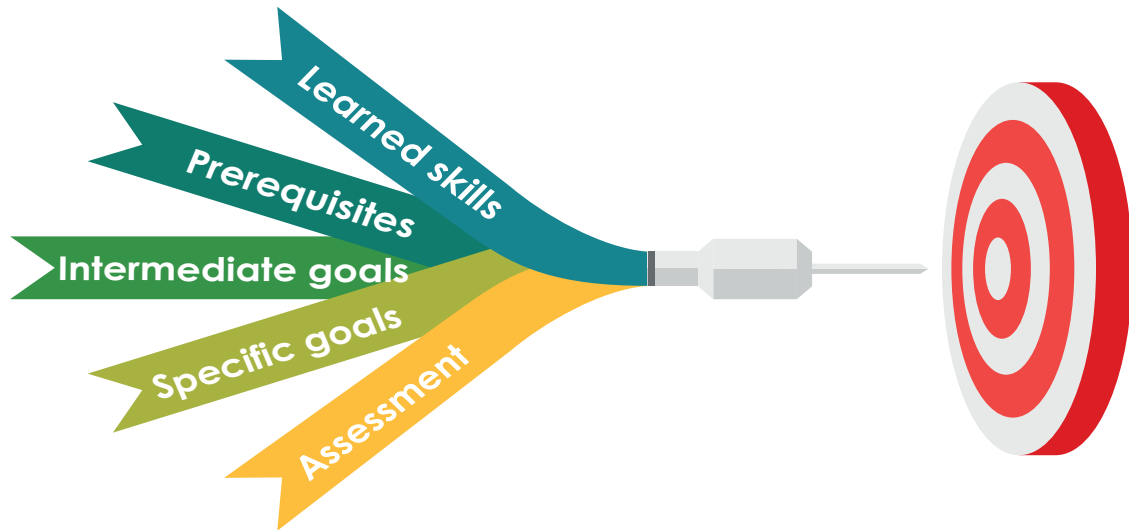



THE INSTRUCTOR MUST CLEARLY EXPLAIN TO HIS STUDENTS THE OBJECTIVE OF THE LESSON, WHAT IS EXPECTED FROM THEM BE THE END OF THE LESSON AND HOW WILL THE TRAINING BE CARRIED OUT.



► STRUCTURING THE LESSON :

As experienced divers, there are many skills that we do without thinking, as we have developed natural reflex actions, particularly by repetition, throughout our own training and experience. However, as instructors, we have to remember that, in many cases, we are teaching our students a particular skill for the first time. Therefore, thinking about each and every step concerning the skill that will be taught helps the instructor develop the progressive steps that need to be put in place for the students to achieve. Those steps demonstrate that there are several actions that need to be included when preparing the structure of a practical skill lesson.



 **IN THE INTRODUCTION YOU SHALL GAIN THE STUDENTS ATTENTION, MOTIVATE THE STUDENT, AND GIVE THE MAIN OUTLINES AND THE OBJECTIVES USING THE ACHIEVEMENT METHOD. THE STUDENT MUST KNOW EXACTLY WHAT TO DO AND WHAT IS EXPECTED FROM HIM.**

► FOR EXAMPLE, FOR THE SKILL OF MASK CLEARING:

For example, for the skill of Mask Clearing, the list of steps might be :

- Checking the mask seal.
- Putting on the mask.
- Letting some water into the mask.
- Breathing in through the mouth.
- Breathing out through the nose.
- Sealing mask to the forehead to help clearing.
- Opening your eyes.
- Vision impairment without a mask.
- Dealing with the strap when replacing the mask.
- Finding the nose pocket.

- Checking seal is restored.
- Avoiding hair in the mask.
- Discomfort.
- Panic.
- Half filling the mask with water.
- Fully filling the mask with water.
- Taking the mask off.
- Mask replacement.
- Contact during the exercise.
- Extending the exercise by finning without a mask.
- Extending the exercise by swapping to another mask.
- Extending the exercise by removing and refitting mask.
- Head position during mask clearing..

► **OVERALL LESSON STRUCTURE:**

The skill, or skills, being taught are parts of the overall practical session. Accordingly, a practical session could include more than one skill. However, each skill requires appropriate allocation of time and attention to be mastered. Therefore, instructors are obliged to build an overall lesson structure so that each skill can be taught progressively.



THE MAJORITY OF PRACTICAL LESSONS AN INSTRUCTOR TEACHES ARE WITHIN “DIVES”, WHETHER THEY CENTER ON SKILLS OR EXTENDING DIVING EXPERIENCE. THEREFORE, IT IS BETTER TO REPLACE THE “SKILLS SESSION” WITH THE WORD “DIVE”. FOR EXAMPLE, “DURING TODAY’S DIVE WE WILL BE LEARNING”

► **PRACTICAL LESSON STRUCTURE:**

- Briefing: the introduction to the session and the skills that will be learned.
- Kitting up.
- Buddy check: possible dry run of equipment.
- Water entry
- Main skills session, broken down into progressive steps.
- Exiting the water.
- De-kitting.
- Debriefing.

3.4 BRIEFING

It is the introduction to your session. It briefly outlines the lesson and the reason for teaching it.

- A poolside is NOT a place for a lecture, so the briefing should be short, yet complete and focused.
- Students will only absorb a maximum of four to five points of information prior to a practical lesson, as they are usually preoccupied with the forthcoming event.
- Therefore, your briefing should be confined to the essentials required for your lesson to work..
- When structuring a briefing, you need to ask yourself the following questions :
 - What exercise am I going to teach?
 - What equipment is required for the exercise?
 - Where is the exercise going to take place?
 - What safety precautions should be taken?
 - What signals are going to be used?
- ▶ Use the word **SEEDS** as an aide-memoire (to cover the essential elements of a brief), and try to keep your briefings to around 5 minutes.

▶ **SAFETY**

▶ **EXERCISE**

▶ **EQUIPMENT**

▶ **DISCIPLINE**

▶ **SIGNALS**

Your brief does not have to follow this particular order, but remember to cover all the elements:

- Tell the student what lesson they will be learning and why.
- There is no need to explain in detail what is involved, this will be taught during the lesson, so a simple statement is all that is needed.

➔ **SAFETY:**

- This depends on the level of students being taught.
- Examine the exercise that you are teaching, and highlight those areas where safety needs to be stressed.
- For beginners, safety will include a reminder to breath normally at all times, and to equalize their ears.
- Also, if a controlled buoyant lift is to be taught, you must tell your students to breathe normally during the ascent, and not to hold their breath at any time during the exercise.
- As student skills develop, the safety brief will evolve to be suitable for each lesson
- Safety can also be used to check whether students have anything specific that might affect part of the lesson. For example, contact lenses and mask clearing.
- Safety may also include specific points about the venue being used. For example; being careful of slippery surface on entry and exit, the risk of reduced visibility and the separation procedures





LIMIT YOUR BRIEFING TO THOSE ASPECTS OF SAFETY RELEVANT TO THE EXERCISE, AND AVOID COVERING EVERY POSSIBLE CATASTROPHE THAT COULD BEFALL THEM.

➔ **EQUIPMENT:**

- This will be a reminder to students of all equipment required for the lesson.
- For beginners, this will be a check that all diving equipment is present.
- For more experienced divers, it may be additional equipment such as surface marker buoys (SMBs) or distance lines.
- Check that your students' equipment is correctly fitted and functioning.
- Encourage students to check their buddy's equipment, including their pressure gauge.
- Remember that pre-dive equipment checks should teach the students to identify the areas of possible problems.
- Equipment checking should be progressive. Students become (during initial training) progressively more competent in assembling and fault finding their own equipment, and their buddy's equipment.

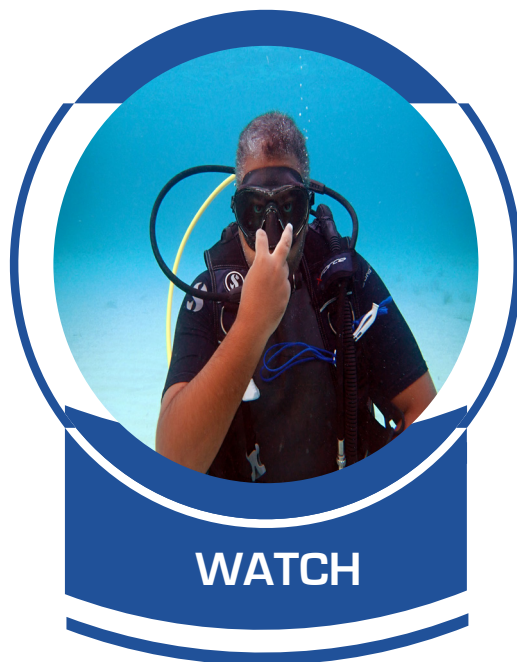
➔ **DISCIPLINE:**

- You need to control the lesson from the start. So, this point covers behavior to make the planned lesson flow safely and effectively.
- You need to ask students to watch your demonstrations and then perform the skill when you ask them to so.
- This point also covers asking students to pay attention to your instructions, stay close together and act appropriately on signals that are given.

➔ **SIGNALS:**

- Diving signals are divided into two categories; general diving signals and instructional signals.
- For beginners, normal diving signals need to be frequently repeated. For the more experienced students they might not be necessary.
- Instructional signals are common to most teaching scenarios. For example, "you watch me" or "over to you".
- You might also need to introduce other signals such as "breathe in", "breathe out" or "move here".
- There will be additional signals needed when teaching a particular skill. For example, in a lesson involving buddy breathing, signals will need to be planned to identify which student is the donor and which student is the receiver.
- Limit your briefing to those aspects of safety relevant to the exercise, and avoid covering every possible catastrophe that could befall them.
- This kind of skill-particular signals can vary slightly from instructor to instructor.
- Therefore, it is really important to cover these in the brief to ensure your students will know exactly what you want them to do when underwater.

3.5 SINSTRUCTIONAL SIGNALS:



3.6 KITTING UP:

- When kitting up, it is always a good idea for you to plan to kit up first.
- This means you will be ready and can watch or attend to students kitting up without having to rush.
- For new divers, you kitting up first is also a great opportunity for you to demonstrate buddy assistance during kitting up so they can understand the importance of helping each other.

3.7 BUDDY CHECK:

- Immediately prior to water entry the buddy check is carried out as it demonstrates safe diving practices.
- This is an essential element of all diving lessons.
- It is essential that students learn that this is an essential part of all dives.
- It also reinforces the importance of this check for more experienced and more capable students.
- Training students to make Buddy Check part of their diving habits is very important.
- When demonstrating buddy check, any omission in kitting up can be detected.
- For example, if a student has forgotten to turn on his diving tank, discovering that during buddy check reinforces the value and importance of why divers should always do buddy check before entering the water.
- Students will learn the value of the buddy check and that mistakes are acceptable as long as there is a mechanism to rectify them.
- Checking another diver's equipment is always a good idea both for the instructors and the students.
- If teaching a skill such as AAS (Alternative Air Source), a practice on how the Octopus is released and used helps enormously before entering the water. It is better to do this out on dry land to avoid fumbling underwater and stopping the flow of the lesson.

3.8 WATER ENTRY:

- Knowing the venue which you will be teaching from will help in choosing the type of entry to use (poolside, beach, inflatable boat, diving boat, etc.).
- The transition from a dry surface to water needs skill.
- For new divers the additional weight of equipment and wearing fins can feel cumbersome and the transition needs to be done as safely as possible.
- You can teach the students a variety of ways to make an entry.
- You may also find that more experienced students have only used one or two types of entry and may need to be taught a new one.





THE INSTRUCTOR SHOULD ALWAYS ENTER THE WATER FIRST AND GET OUT LAST.

3.9 MAIN SKILLS SESSION BROKEN DOWN INTO PROGRESSIVE STEPS:

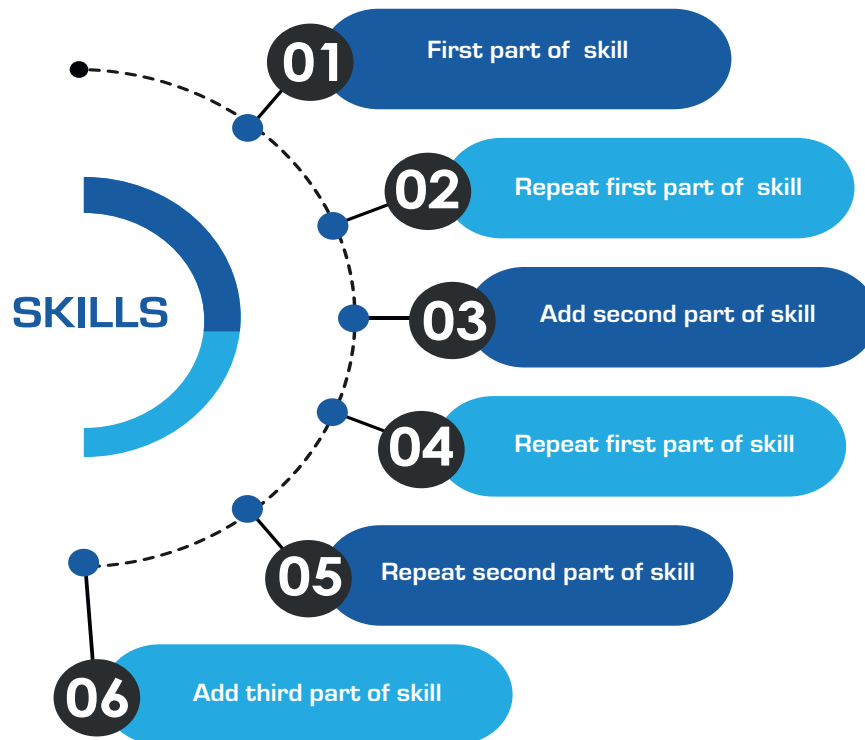
- The objective of instruction is to increase the students' level of knowledge or skill.
- Skills are essentially learned by carrying out tasks.
- Normally, sight is the most important sense by which information is obtained. However, in skill learning the actual use of the muscles is three times as important as seeing the skill performed.
- Listening to a detailed account of how the actions should be performed is of much less value than watching a performance.
- Where possible, the demonstration of a skill should be accompanied by a verbal description of its finer points which explains the detail to help understanding.
- If too much instructions are presented at any one time, students will find it difficult to comprehend or to assimilate due to information overload.
- To avoid this, and to ensure the training is carried out most efficiently, you need to perform progressive instruction.

4. WHAT IS PROGRESSIVE INSTRUCTION?

- The sequential nature of some diving activities make it possible to **break it down** into a series of discrete actions.
- Progressive instruction starts by establishing **a point** to which the student can relate.
- Every student will have some knowledge or skill with which they are familiar and which can be used as **a basis** on which to build towards the new knowledge or skill.
- The new information or skill is then broken down into **small steps**
- The **first step** builds directly on the starting point, and each **subsequent step** building directly on its preceding step.
- Only when each step is **fully assimilated** does the lesson progress to the next.
- Each step must **repeat and build on** the one before it. Should correction be necessary, this can be done before moving onto the next step.
- This method ensures that students **repeat the steps** successfully building towards completing the overall skill.
- Having achieved the overall skill, the next progressive step may be to take the whole exercise and repeat it as a one **whole practice**.



- By working through the steps in this way the new knowledge or skill is built up **progressively**.
- You can achieve a good level of performance by teaching the elements of the activity as **drills**.
- Too rigid adherence to drills in any training programme can produce habits which lack the necessary knowledge content that lies behind true skilled behavior.
- Drills will produce **behavior patterns** in a **given situation** but these tend to hinder the students' ability to adapt to changing conditions.
- So, understanding the true nature of a skill comes from **explanation**.



WHETHER CONCENTRATING ON ONE SKILL OR A SERIES OF SKILLS, PRACTICAL TEACHING MUST BE IN A PROGRESSIVE MANNER SO THAT IT BUILDS THE STUDENT'S COMPETENCE AND CONFIDENCE IN PERFORMING THE SKILL.

COMPLEX SKILLS CAN BE BROKEN DOWN INTO THEIR COMPONENT ELEMENTS. THE GREATER THE COMPLEXITY THE GREATER THE NUMBER OF STEPS IN THE PROGRESSION.


- The progress a student will make towards the acquisition of a skill depends upon a number of factors:
- **Physical ability:** this ability will vary from one individual to another and you must be prepared for the student who are physically less able.
- **The degree to which the student is able to understand.** This also varies between students and you need to make sure that all students have reached the same level before you progress to the next step.



- The nature and **complexity** of the activity they are being asked to perform.
- **The standard of performance** that they are given as an example to imitate.
- **Progressive Instruction** to a lesson can be illustrated through examples of teaching a simple skill and a complex skill.

➔ **A SIMPLE SKILL (MASK CLEARING):**

- The ability to clear water from a diving mask is a very basic skill which must be mastered at a very early stage in the diver's training program.
- However, it is a fairly stressful exercise for someone who is not used to being underwater and breathing through a mouthpiece.
- If the student is to be taught the new skill of mask clearing successfully it is necessary to consider all the different aspects which will be of concern to the student and to address each aspects one at a time.
- This is best done by first introducing just a little water to partially flood the mask.
- Once the technique of clearing this water has been mastered the exercise can be extended by more extensive flooding of the mask until it is fully flooded.
- The final step will be the full removal of the mask to simulate a real situation where a mask becomes displaced underwater..



UNFORTUNATELY, MANY INSTRUCTORS INTRODUCE THE NO-MASK BREATHING EXERCISE ONLY AFTER THEIR STUDENTS HAVE BEGUN THE MASK CLEARING EXERCISE. THIS APPROACH, PUTS THE STUDENTS WHO HAVE THE MOST DIFFICULTY EMPTYING THEIR MASKS IN THE UNCOMFORTABLE AND STRESSFUL SITUATION OF EXPOSING THEIR NOSES TO THE WATER AT THE SAME TIME AS THEY ARE TRYING TO MASTER THE MASK CLEARING TECHNIQUE.

To apply this to Mask Clearing, the steps can be as follows:

- Removing a mask underwater is a big step for someone who has not done it before.
- Breathing underwater without a mask can first be practiced with the students in very shallow water holding on to a secure support.
- Without a mask, the student commences breathing from the regulator and, once a regular rhythm is established, slowly squats down in the water until the water level covers their mouth and nose.
- Should any of the students face any difficulty, he/she merely has to raise their head a short distance to be able to breathe normally through the nose.

- As confidence is gained, students can submerge the whole of their faces underwater and breathe through the regulator for a longer period of time.
- The need to surface if the exercise goes wrong is both a psychological consideration for the student and a safety consideration for the instructor.
- If the exercise is carried out in water which is just deep enough to cover the student's head when knelt down, the student will have the confidence of knowing that all that is necessary to regain the surface is to stand up, the instructor also will have the confidence of knowing that in such a short ascent the risk of lung damage, should the student hold their breath is minimal.
- Moving further from the surface, with the technique mastered the students are then taken into slightly deeper water where they can no longer immediately stand up to regain the surface.
- This reassures them that the technique works equally well irrespective of depth..

4.1 EXAMPLE OF MASK CLEARING LESSON:

▶ ON SURFACE BEFORE ENTERING WATER

↻ STEP 1: INSTRUCTOR DEMONSTRATES FITTING THE MASK:



Pic 1: Clear strap away from mask but in a position where it can be drawn over the head without twisting.

Pic 2: Holding the mask in one hand, using the other hand, check that the face is clear of hair



Pic 3: Put mask in position, draw the strap over the head, check the seal is secure and strap is not twisted.



Students mimic step 1 (the instructor can check that the student's mask fits correctly and is not too tight or too loose).

➔ STEP 2: INSTRUCTOR DEMONSTRATES BREATHING CYCLE USED DURING EXERCISE:



Pic 1: With head slightly down, breathe in through the mouth

Pic 2: Breathe out through the nose before starting to tilt head back.



Pic 3: Students should feel the mask easing when breathing out.



Students repeat step 2 (the instructor can check that the student is breathing out through the nose and not by mouth).

THE AIR WAY CONTROL IS A VERY IMPORTANT EXERCISE IN DIVING, THE DRY DEMONSTRATION MUST BE EXPLICIT AND SIMPLE. THE CANDIDATE'S AIRWAY ADAPTATION TO SALT WATER IS A PREREQUISITE FOR THE REST OF THE SKILLS THAT WILL BE LEARNED.

START BY DOING IT IN THE DRY, THEN ON THE SURFACE WITH A SNORKEL, ON THE SURFACE WITH A REGULATOR, AND FINALLY ON THE BOTTOM.

CHECK THAT THE STUDENTS KNOW HOW TO BREATHE IN THROUGH THEIR MOUTH AND OUT OF THEIR NOSE SO THAT YOU CAN PROGRESS TO THE NEXT SKILL.

IN CASE OF DIFFICULTIES: PINCH THE NOSE, OR A NOSTRIL.



► **IN THE WATER- IN STANDING DEPTH:**

➔ **STEP3: INSTRUCTOR DEMONSTRATES BREATHING FROM REGULATOR WITHOUT MASK:**



Pic 1: Without the mask on, but with regulator in your mouth, lean forward suitably supported.

Pic 2: Place face with your eyes open in the water and breathe off the regulator for 5-10 breaths. If the water is cold it's allowed to close your eyes.



Aim: to build confidence breathing from a regulator with water around the nose before going underwater.

➔ **STEP 4 : INSTRUCTOR DEMONSTRATES ROCKING THE MASK ON THE FACE**



Pic 1: With the mask in hand, the instructor explains how to rocking the mask and get it off the face.

Pic 2: breathe out through nose, tip head back and gently 'rock' bottom of mask to ease the seal in order to allow the exhaled air to escape



Students mimic step 4 and repeat a couple of times to establish a rhythm of:

- Head down, breathe in through your mouth first, then through the regulator.
- Breathe out through nose, tilt head back and gently 'rock' bottom of mask

Note : Masks may fog and require rinsing before the next step.

▶ **UNDERWATER- KNEELING IN STANDING DEPTH:**

➔ **STEP 5: INSTRUCTOR DEMONSTRATES BREATHING CYCLE UNDERWATER:**



Pic 1: Head down slightly, holding the mask breathe in through regulator.

Pic 2: Breathe out through nose, tip head back and gently 'rock' the bottom of the mask to ease the seal. Show exhaust bubbles escaping.



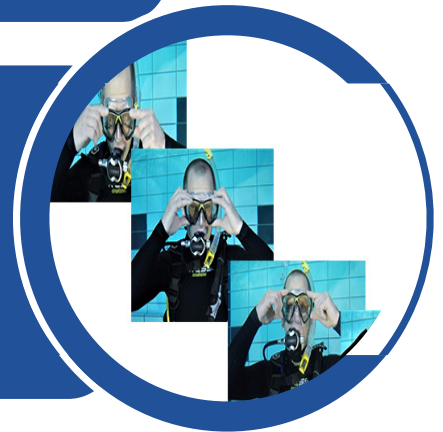
REPEAT THE EXERCISE FROM THE SIDE TO SHOW STUDENTS THE HEAD TILTING BACK AND STUDENTS REPEAT THE STEP.

➔ **STEP 6 : INSTRUCTOR DEMONSTRATES CLEARING A SMALL AMOUNT OF WATER FROM THE MASK:**



Pic 1: Slightly ease the side of the mask to allow a small amount of water to enter the mask.

Pic 2: Tip head slightly down, holding the mask, breathe in through the regulator.



Pic 3 : Breathe out through nose, tip head back and gently 'rock' the bottom of the mask to ease the seal



Pic 4 : Show that the mask has been cleared, Students mimic step 6.



Explain the opening of the mask skirt to your students when clearing the mask, if the opening is large with a bad synchronization, the student will always have water in his mask.

The goal of the exercise is not only to empty the mask, but also to know how to synchronize the exhalation and the opening of the skirt and the closing in due time.



➔ ÉTAPE 7 : STEP 7 : INSTRUCTOR DEMONSTRATES LETTING MORE WATER



Pic 1: Slightly ease the mask to allow it to fill half way.

Pic 2: Clear the mask as in step 6. Students mimic step 7.



➔ STEP 8 : INSTRUCTOR DEMONSTRATES COMPLETE FLOODING



Pic 1 : Ease the mask to allow it to fill completely.

Pic 2 : Clear mask as in step 6. Students mimic step 8.



➔ STEP 9 : INSTRUCTOR DEMONSTRATE REMOVAL AND REFIT OF MASK:



Pic 1 : Remove mask, feel the nose piece to ensure correct way up, and clear strap to a position where it can be drawn over the head without twisting.

Pic 2: Clear face of hair and replace mask on face. While holding the mask with one hand, use the other to draw the strap over your head.



Pic 3 : Clear the mask as in step 6.

Pic 4 : Check and clear again, if necessary. Show that the mask has been cleaned and that the strap is not wrinkled. Students mimic step 9.



4.2 A COMPLEX SKILL (LIFTING A SUBMERGED OBJECT) :

- You need to consider how far a complex skill can be usefully broken down into minor elements.
- Take care when selecting the units to ensure that each of the several minor skills that are involved all fit naturally into their developmental sequence when the complex skill is practiced as an integrated system.
- The development of a complex skill by teaching its parts can be done in two ways:
 - ▶ Sequentially, when the first element is practiced first, then the second added and the two elements practiced together, then the third added to the first two elements and so on.
 - ▶ Or by practicing each element independently of the others and then finally combining all the practiced elements into the complete skill.

▶ EXAMPLE OF LIFTING OF A SUBMERGED OBJECT LESSON:

A typical sequence for teaching the skill would include the following:

⇒ THEORETICAL KNOWLEDGE:

- Classroom lessons will be required to ensure that the student fully understands buoyancy and the effect of changing pressure on the volume of air used.
- Any equipment that the students have not seen before, such as lifting bags or snap shackles, will need to be fully explained.

⇒ DRY PRACTICE:

- The students will need a chance to become familiar with handling the equipment before they take it onto the water.
- Any knots necessary to attach snap shackles to lifting bags or to the object to be lifted, will need to be demonstrated and practiced by the students.
- A dry-run of fully assembling the equipment and then disassembling it again for transport will provide a rehearsal of the exercise to be carried out underwater..

⇒ CONFINED WATER PRACTICE:

- Using a relatively small object, the instructor can demonstrate the technique for inflating the buoyancy bag and how to judge the amount of air required to do so.
- Student practice then follows until the students are familiar with the technique.

⇒ OPEN WATER PRACTICE:

- Using the same equipment, the students should practice the skills in deeper water, hence introduced to the effects of the greater pressure reducing the rate of inflation of the bag and the effects of air expansion in the bag on ascent.
- Initially the exercises need to be carried out in clear water and favorable conditions
- Once the basic techniques have been mastered, they can be repeated in less favorable conditions of reduced visibility or stronger water movement.
- The relatively small objects used for the initial practices can be replaced with much heavier objects which will require larger lifting bags, more complex arrangements.





TO ENSURE THAT THE STUDENT CAN PERFORM THE SKILL RELIABLY IT NEEDS TO BE PRACTICED ON A NUMBER OF OCCASIONS.

REPEATING THE EXERCISE DURING A NUMBER OF DIFFERENT TRAINING SESSIONS TO CONSOLIDATE THE SKILL IS ALSO A PART OF THE PROGRESSION.

4.3 EXITING THE WATER :

- At the end of teaching the main skills for the lesson, you should prepare to demonstrate a method of exiting the water.
- The instructor should be the last person out of the water, this is because if any students fall back in you must be ready to immediately assist.

4.4 DE-KITTING :

- Next you can take the opportunity to demonstrate how to de-kit safely with the assistance of a buddy.
- This would include taking off the equipment in the right sequence, washing it with fresh water, drying and storing it.
- There may be additional teaching points such as:
 - ✓ Keeping regulators on top of the kit if lying it down to avoid contact with sand.
 - ✓ Keeping all personal kit together in one place to avoid a 'spread' of diving kit in a restricted area.
 - ✓ Closing down the 1st stage dust cap before washing the regulator.
 - ✓ Not to push the 2nd stage purge button while cleaning it.

4.5 DEBRIEFING:

- This part of the lesson needs to be prepared, however, its contents will depend on how the session progressed and what your students have achieved.
- The instructor must highlight the problems that the students experienced and how to deal with it.
- The instructor receives any questions from the students, encourages them and praises good performance.
- Giving feedback to your students is very important as it rounds off the lesson and should leave them feeling update and eager for the next session.
- At the end of the lesson you have to maintain the students' attention.

► PREPARING A DEBRIEF :

- The mnemonic REAP is used to cover the essential elements of a debrief :
 - **REVIEW**
 - **ENCOURAGE**
 - **ASSESS**
 - **PROGRESS**

↻ REVIEW:

- Restate the objectives.
- Go through what you have done during the lesson.
- Focus on the main points covered during the lesson and stress the key information.
- Match the lesson to the practical application.

↻ ENCOURAGE:

- You have to be positive about what your students have achieved to keep them motivated.
- Knowing your students' capabilities will help you appreciate what has been difficult for them to learn and practice.
- It is also important to know the challenges and hesitations they have overcome.
- Make sure when praising your students not to undermine those who have not performed well.

↻ ASSESS:

- You need to assess the achievements made during the lesson.
- You should start by mentioning the good points.
- Then if something did not go too well you need to mention it.
- However, it is important that you analyse the situation and the causes behind any issues.
- If you realise that the problems were caused by your instructions, be honest and tell them that perhaps you were not clear enough in what you wanted them to do.
- If it was because a student was having problems, you can reassure them that there will be other opportunities to practice and that there is no time limit to getting something right.
- You should not be correcting during the debrief. The time to make any corrections is during the skills session.

↻ PROGRESS:

- On the basis of your assessment, you will be able to tell students what, when and where the next step in their training will be.



5. PRACTICING THE PRACTICAL LESSON:

- Having planned and prepared the lesson, it should be practiced before you teach it in a real session.
- You can use other divers as audience, but it is better to practice with other instructors. They will give you feedback and, from their own experience, offer solutions to any problems that you might face.
- The most important thing to do before teaching any practical skills is to be honest with yourself. Are you mastering and practicing the skills you will be teaching?
- There is nothing worse than an out-of-practice instructor. You will be letting your students down and this could impact their effectiveness and ultimately safety.
- Even the most experienced instructors have time off from teaching and diving and will have to be sure that they are in practice before teaching students again.



PREPARING THE TEACHING NOTES IS VERY IMPORTANT, SO THE INSTRUCTOR WILL NOT BE LOST IN THE MIDDLE OF HIS LESSON, AND IT WILL ALWAYS REMIND HIM WHERE HE IS, AND WHAT IS COMING NEXT.

PRACTICE AND MORE PRACTICE WILL POLISH YOUR TEACHING SKILLS AND INCREASE YOUR FLEXIBILITY AND ADAPTABILITY HELPING YOU TO DEAL WITH ANY PROBLEMS.

5.1 PRESENTING THE PRACTICAL LESSON:

When presenting a practical lesson, there are few key things you should remember:

- Throughout the lesson, it is important to position yourself appropriately in relation to the students to ensure control and their safety.
- Avoid as many distractions as possible so that the students can focus on you and clearly see your demonstrations "you are the visual aid".
- Sometimes, it can be difficult to avoid all the distractions when teaching practical skills, but remember, we (as divers) have to adapt to surface or underwater conditions to dive safely.



BEFORE THE PRACTICAL SESSION WE SHOULD CONSIDER THE FOLLOWING:

- ✓ **CHOOSE A BRIEFING LOCATION AWAY FROM DISTRACTIONS.**
- ✓ **POINTS OF ENTRY AND EXIT TO AND FROM THE WATER AND METHODS OF ENTRY AND EXIT.**
- ✓ **DEPTH AND AREA IN WHICH THE EXERCISE IS TO TAKE PLACE (SURFACE\ UNDERWATER)**
- ✓ **EQUIPMENT REQUIRED**

WE MUST ALSO CONSIDER:

- ✓ **- THE STUDENT PRESENT SKILL LEVEL**
- ✓ **- THE EXERCISE**
- ✓ **- THE PROGRESSION OF THE LESSON**



5.2 TRAINING AREAS :

Practical skills and many technical aspects of diver training are taught in different environments, including a classroom, swimming pool, confined and open water sites. Pools and confined water are most suitable for students to learn their basic skills.

► POOL TRAINING :

A swimming pool is the first choice for basic diver training :

- The walls and floor of the pool confine the area and the depth is generally fairly shallow.
- The water is generally clean and warm because of filtration and heating systems and there is little water movement.
- Most pools have changing rooms and showers and are generally comfortable venues for teaching.

Swimming pools are not necessarily designed for teaching scuba. Hence, there are a number of points which need to be considered when using a pool for diving training:

- The water needs to be deep enough to enable underwater skills to be carried out while the student is wholly submerged.
- For students to appreciate the effects of pressure in relation to the change in depth, it is desirable that the pool should have a deep section of 2-3 meters.
- Most training programmes require a good deal of surface activity such as lifesaving and snorkeling practice. Therefore, pools need to be of a reasonable length
- The pool bottom should slope gradually and not to be steep, so students can kneel comfortably. A stepped arrangement of the pool bottom is preferable.
- Ladders or steps at the deep end are desirable for easy access and exit.
- Steps or ladders can vary in size, and location from pool to pool.
- Heated pools can vary in temperature and some can be very cool indeed although they are called 'heated'
- Depending on the filtration and heating system used, there may be areas of the pool, particularly near vents, where some water movement can be felt.
- Light and heat around the pool and changing rooms is generally good but a poorly heated swimming pool hall, or on outdoor pool that will obviously be at the mercy of the elements, could easily effect the time spent on the surface or at the side of the pool.
- Surface areas around a pool will vary from wide to very narrow and from slippery to non-slippery.
- There may be other sessions happening at the same time as your lesson, which will restrict how much room you have available.
- The acoustics of an indoor pool may make communication difficult.
- You should check on any safety features of the pool such as fire-alarm procedures, first aid kit accessibility and any accident-reporting procedures.



- If you are going to be teaching in a pool you are not familiar with, take time to examine it and make any necessary adjustments to your lesson plan.
- Knowing the pool will help in your planning and preparation process. You will know the best place to start your lesson, where you can move to progress skills in deeper water and entry and exit points.
- Extra care should be exercised by ensuring that lead is plastic coated and cylinder are fitted with protective boots. Replacing broken tiles is an expensive process, and will not endear you to the owners of the pool.

► **OPEN-WATER TRAINING:**

- Using an open water training area is clearly less expensive than using a swimming pool and allows for more flexibility in terms of availability.
- Open water provides a more realistic environment for the student to learn scuba skills.

However, teaching in open water also has its disadvantages:

- It can, if the water temperature and visibility are not ideal, these factors could shorten lessons and make class control more difficult.
- Weather of surface conditions may be unsuitable.
- Visibility may be variable.
- Water temperature may require protective clothing.

When choosing an open water training area, the following should be considered:

- The site chosen should be free from the effects of currents, strong tides and excessive wave action.
- The static nature of some aspects of training can prove chilling even though the water may be relatively warm.
- Some form of protective clothing is recommended for thermal protection and to protect against abrasions.
- There may be too many natural distractions.
- The training area should have a depth range similar to that of a typical swimming pool.
- Have easy access and exit points.
- Remember, if one of your students gets into difficulties it is likely that you will need to gain access to the shore quickly.
- Unlike a swimming pool, where the poolside is within easy reach, incidents in open water can become more difficult to deal with if the area chosen is too far from a safe point of exit.
- Using a surface marker buoy to identify your position underwater and a dive boat as surface cover are wise precautions if training is to be conducted in open areas of sea.
- Choose your open water training area with care.
- Cold water. The exercise becomes more difficult with reduced visibility and the added inconvenience of wearing gloves.

When selecting an open water training area, the following should be taken into account :

- Avoid rocky and uneven areas, and try to find a reasonably flat location where there is enough room to accommodate the size of your class.
- Sandy areas are ideal, providing there is minimal water movement.
- You may have to move the class from time to time as sand is easily stirred up, and visibility can deteriorate quickly.
- In very cold water and in poor visibility conditions, some aspects of basic training need to be considered with more care. For example, mask clearing exercises could be difficult and risky if the student's face is suddenly exposed to cold water. The exercise becomes more difficult with reduced visibility and the added inconvenience of wearing gloves.

Whether in a pool or open water, any practical skill taught for the first time should follow this basic principle:



NOTE:

6. PRACTICAL SESSION IN SWIMMING POOL OR CONFINED WATER:

- This sections aims to introduce basic practice diving skills.
- According to the number of students in the course, make sure to divide them into groups of maximum 4 students each, at least one day before the session.
- Teams of students can be trained simultaneously provided that each has a dedicated instructor.
- If there is only one instructor available and more than four students, the instructor will have to deal with one group at the time.
- The session's duration varies according to the number of students and the skills taught, however, it should not exceed 45 min underwater.

➤ EXAMPLE OF PRACTICAL SESSION (E-LEARNING SECTION 2):

- **Level :** CMAS One Star Diver
- **Lesson:** N°1/P1
- **Lesson Title:** : introduction to equipment
- **Duration :** 60 minutes
- **Contents :**
 - In this first lesson, students will be introduced to mask, fins, and snorkel and their use, and will gain an appreciation of the effects of mask squeeze and ear clearing in shallow water.
 - The buddy system will be employed from the first opportunity.
 - Fitting the mask, adjustment, defogging, and ear clearing.
 - Fitting the snorkel, surface breathing, clearing by blowing and displacement.
 - Fitting the fins, adjustment, correct fining action, and practice period.
 - Surface swimming, pike dives, and surfacing technique using, mask, fins, and snorkel.
 - Treading water, vertical fining, surface support stroke.
 - Brief introduction to SCUBA, fitting, breathing, and swimming.
 - Adjusting buoyancy..
- **Level :** CMAS One Star Diver
- **Lesson:** N°2/P1
- **Lesson Title:** : SCUBA Skills 1
- **Duration :** 60 minutes
- **Contents :**
 - Assembling the SCUBA set.
 - Fitting and checking the regulator, air supply, fit of BC, weight belt.
 - Entering the water, breathing from the regulator second stage in different attitudes, checking and adjusting buoyancy.
 - Finning and moving while wearing SCUBA.
 - Remove, replace and clear mouthpiece.

- Remove, replace and clear mask.
 - Breathe from alternative air supply (octopus).
 - Regulator recovery.
 - Static Buddy Breathing
 - Surfacing and leaving water..
-
- **Level :** CMAS One Star Diver
 - **Lesson:** N°3/P1
 - **Lesson Title: :** Snorkeling and SCUBA Skills 2
 - **Duration :** 60 minutes
 - **Contents :**
 - Snorkeling skills, entering the water, leaving the water.
 - Feet first descent.
 - Surface dives while swimming
 - Longer breath-hold dives.
 - Removing and recovering basic equipment.
 - Using and fitting a weight belt.
 - Repeat mask and snorkel clearing.
 - SCUBA skills, entering and leaving the water.
 - Improve mouthpiece clearing and mask clearing technique.
 - Improve fining technique.
 - Demonstrate buoyancy control.
 - Buddy breathing following "out of air" simulation.
 - Remove SCUBA at surface.
-
- **Level :** CMAS One Star Diver
 - **Lesson:** N°4/P1
 - **Lesson Title: :** SCUBA Skills 3
 - **Duration :** 60 minutes
 - **Contents :**
 - Further entry techniques.
 - Improve basic techniques, mask clearing, fining.
 - Mobility exercises, buoyancy control.
 - Remove and replace weight belt underwater.
 - Remove and replace SCUBA underwater.
 - Surface, fit snorkel and swim on surface using snorkel while wearing SCUBA, replace SCUBA mouthpiece and descent.
 - Exit from water via ladder from deep water.

➔ DEMO OF STANDARD EXERCISES IN POOL :

First part with fins, mask and snorkel :

1. Water entry techniques: Step out and Back Roll.
2. Diving techniques: Jack Knife and Feet First
3. Finning techniques.
4. Mask clearing.
5. Snorkel clearing.
6. Recovery of unconscious diver from the bottom.

Second part with full SCUBA equipment :

1. Water entry techniques: Step out and Back Roll.
2. Take off and on full SCUBA equipment under water.
3. Recovery of unconscious SCUBA diver from the bottom.
4. Artificial respiration while swimming.
5. Taking unconscious SCUBA diver out of the water.

7. POOL LESSON PLANNING :

The basic teaching techniques remain the same, but now, as an Instructor, you have the opportunity to emphasize the [learning through « doing »](#).

- On the pool side there may be a number of groups being led by other instructors, together with the noise and activity in a pool area this all provides distractions for an instructor.
- It is essential that the instructor deals within this environment.
- The instructor is responsible for the well-being of the students and as well as for the teaching.
- The instructor will be the first person to be consulted in an emergency situation.
- Safety is an important aspect of any pool session.
- You should make sure that there is a lifeguard on duty.
- There should be a tender on duty to assist with the training logistics.
- The location of first aid, the emergency plan and oxygen should be clearly marked and known to everyone.
- Be aware of who can and cannot provide and receive oxygen.
- During your lesson, always keep well back from the edge of the pool.
- Use the corners and keep the students against the edges of the pool and positioning yourself in the center.
- First, select an area to place all equipment prior to your brief, kit up and buddy check.
- You want to avoid areas where there is access to and from the pool as tripping over your group's equipment could present a hazard to other pool users.

- Having an assembly point for equipment helps you to keep it together and prevent it annoying others.
- It can also be checked more easily before beginning the lesson to ensure all your students have all their equipment.
- Before you leave the swimming pool, make sure your students have packed all their equipment and that there is nothing forgotten behind.



IDEALLY, TRY TO UTILISE A CORNER OF THE POOL AWAY FROM ANY DISRUPTIONS. ALTERNATIVELY, AN AREA AT THE SIDE OF THE POOL WHERE THERE IS THE LEAST TRAFFIC.

7.1 GIVING YOUR BRIEF:

- To ensure students concentrate on you and your brief, gather them in a quiet area on the pool bank, or sheltered area away from activity if outside. (turn them away from the pool and its distractions).
- Place yourself in the corner, or against a wall, and bring your students in close so they can hear you- swimming pool halls are often noisy and echo because of their design.
- Make sure the students are not facing anything that may cause a distraction to them, (check to see whether there are any signs or posters directly behind you that could distract your students from what you are saying).
- State the exercises to be done, give clear reasons for the purpose of each exercise and its relevance to diving.
- Draw on the students' experiences from previous skills that have already been learned.
- Give step-by-step instructions as to how to perform each skill incorporating specific signals and safety issues for the exercise.
- Use either an assistant or a student to help.
- Stress the use of hand signals, poolside behavior and care of equipment (both which are being used or left on poolside).
- If moving around a pool, keep students close to you and as far from the pool edge as is possible.
- To prevent students getting too near the pool edge, place yourself between them and the pool



INSTRUCTOR MUST KIT UP FIRST, WITH THE STUDENTS OBSERVING. THIS HELPS THEM TO GET FAMILIAR WITH THE GEAR. INSTRUCTOR SHOULD THEN HELP EACH STUDENT IN TURN, CHECKING THE EQUIPMENT ONCE ON AND TURNING AIR ON.



7.2 GETTING READY TO ENTER :

- The Instructor should enter the water first.
- Enter the water in the shallow end, then the students.
- You should use and demonstrate the easiest entry and exit methods.
- Trainees will still be getting used to their balance when wearing full equipment and any apprehension can make entries quite hard work.
- You want to ease them into the diving lesson, not tire them out.
- Ask your students to move and assemble in a suitable location (one area) in the water for exercise.
- Then demonstrate the exercise in the shallow end, using the with the required signals.
- You should demonstrate the full exercise, and after that ask your students to perform the exercise or skill.
- Your positioning when teaching an entry is important. Remember all students need to see what you are doing.
- Use a corner of the pool. This is the ideal 'L' position as students can clearly see you as you demonstrate the entry method. They can then mimic the entry one at a time.
- If a pool corner is unavailable, use the side of the pool but place students in a line at a slight angle to the entry point. On your entry, angle yourself slightly towards the students to optimise their side view of your demonstration

SCUBA EQUIPMENT SHOULD BE ASSEMBLED WITH THE STUDENTS AND CHECKED BY INSTRUCTOR.

THE EQUIPMENT SHOULD BE LEFT READY ON THE POOLSIDE, TOGETHER WITH WEIGHTS IF NEEDED.



Pool corner position



Pool side position

7.3 ENTRY TECHNIQUES:

► TEACHING POOLSIDE ENTRY METHODS:



Pic 1: Sit on pool side and place arms across the body.



Pic 2: Rotate the body around, supported on your arms.



Pic 3: Lower yourself into the water.



Pic 4: Give ok signal after entry. Call each student individually to mimic.

➔ TEACHING POOL LADDER ENTRY METHOD:



Pic 1: Place your fins by side of ladder, partially inflate your BC, regulator in and mask on, step onto the ladder.

Pic 2: To ensure a good hold, keep three points of contact during descent of ladder.



Pic 3: Remember to clear the base of the ladder for first student.



Pic 4: Give ok signal. Call each student individually to mimic.



➔ GIANT STRIDE ENTRY IN DEEP WATER:



Pic 1: With the BC partially inflated, check depth of water and check it is clear to enter. Stand with fin tips clear of the pool's edge.

Pic 2: Hold your mask and regulator with one hand and the other across the body holding any loose accessories.



Pic 3: Make a large stride forwards with a straight leg ensuring you look directly ahead

Pic 4: Give ok signal after entry. Call each student individually to mimic.



➔ **BACKWARD ROLL ENTRY INTO DEEP WATER, FROM A RIB OR SMALL BOAT:**



Pic 1: With your BC partially inflated, check depth of water and check it is clear to enter.


Pic 2: Stand with your back to the water, heels just over the pool's edge. Hold mask and accessories. Bend into crouching position.



Pic 3: Tip backwards, allowing gravity to do the rest.

Pic 4: Give ok signal. Call each student individually to mimic.



- 
- MAKE SURE THAT YOUR STUDENTS HAVE THE BC PARTIALLY INFLATED BEFORE GETTING IN THE WATER.
 - MAKE SURE THERE IS NO ONE BENEATH THE ENTRY POINT
 - ALWAYS CHECK THERE IS ENOUGH DEPTH FOR THE ENTRY PARTICULARLY WHEN DOING A STRIDE ENTRY- USE A DEPTH SUITABLE FOR THE TALLEST STUDENT.
 - WHEN EACH STUDENT HAS COMPLETED THE ENTRY, MOVE HIM/HER TO THE WALL AWAY FROM THE ENTRY AREA AND HIM/HER TO HOLD ONTO THE SIDE WHILE YOU WATCH THE NEXT STUDENT
 - CHECK THAT THEY ARE OK FOLLOWING THEIR ENTRY AND MOVE THEM TO A SAFE POSITION TO CLEAR THE WAY FOR THE NEXT STUDENT ENTERING THE WATER.

► ON-SURFACE LESSONS:

- Many diving skills are taught more easily without the burden of SCUBA equipment, at least in the early stages.
- For example, finning, the use of the snorkel, surface dives, and lifesaving techniques are all skills which can be taught on the surface using basic equipment.
- Large number of students can be taught on the poolside by one instructor while an assistant can be in the water to demonstrate the various skills and assist in correcting mistakes.
- Working near a pool wall can help keeping the group together (see A).
- For snorkeling lessons, it is often better to have the students on the wall and you demonstrate in front of them.
- When one student mimics a demonstration, you can stay out from the wall with the performing student working between you and their fellow students against the wall (see B).
- This is important when teaching snorkeling in deeper water as it gives watching students a secure hold.
- The skills learnt at this early stage become the foundation stone for future training.
- Skills such as finning, mask and snorkel clearing and surface dives require a great deal of skill on the part of the instructor.





- **EACH TECHNIQUE NEEDS TO BE BROKEN DOWN INTO EASY STAGES SO THAT THE STUDENT GAINS CONFIDENCE AND ABILITY.**

► **TEACHING BASIC SKILLS:**

- When analyzing any skill, it is important to understand the relationship between a basic skill taught at the beginning of training, and a more complex skill required later.
- For example, the act of breathing from a snorkel causes the student to inhale and exhale predominantly through the mouth. Perfecting this technique will make breathing from a regulator a familiar routine.
- Some skills are best demonstrated from two different positions. One is done facing the students and one sideways.
- For example, if demonstrating mask clearing you could do that both facing the students and sideways. This will enable the students to see different angles, and provide a better understanding of the technique.
- Other skills such as buoyancy, and forward and backward rolls can also be demonstrated both facing the students and sideways which helps show the body's position



- **DO NOT INCLUDE TOO MANY ACTIONS IN ONE STEP.**
- **IF STUDENTS APPEAR CONFUSED THEN STOP AND BREAK THE ACTION DOWN INTO TWO OR MORE STEPS.**
- **SOMETIMES IT HELPS TO SIGN THE ACTIONS BY INDICATING ACTION 1 WITH ONE FINGER, ACTION 2 WITH TWO FINGERS, ETC.**
- **DEVELOPING A LINK BETWEEN A FAMILIAR SKILL AND AN UNFAMILIAR SKILL COMES WITH EXPERIENCE AND UNDERSTANDING, BUT THIS DEVELOPMENT SHOULD ALWAYS REMAIN RELEVANT TO ACTUAL DIVING SKILLS.**

- When using one of the students to demonstrate on for the rest of the group, always remember to repeat the demonstration on another student so the first student can see your demonstration clearly.
- Experience has shown that there are many instructional techniques that can be employed when teaching diving skills. Therefore, any diving organization has always encouraged instructors to develop their own individual style of teaching, and to avoid a rigid teaching approach.
- There are different ways in which skills can be taught. This is limited only by the ingenuity and imagination of the instructor.
- Therefore, the following examples related to basic equipment and **skills should be used as guidance and not as the only way things should be done.**

➔ SURFACE DIVES:

- This exercise can be reduced to several component parts, hence, allowing each one to be taught and practiced separately. Gradually combining them all will give the end result.
- This method usually produces a quicker and consistently better result than simply showing the whole skill.
- For example: a surface dive would commence by (1) lying on the surface face down and then (2) bending the body to 90° from the waist, pointing both outstretched arms towards the bottom of the pool. (3) the next step is to lift both legs vertically to add weight and impetus to the descent. (4) the final part will be to use a breaststroke pull with arms.
- These four movements are gradually combined at a faster rate to produce a fluid and competent surface dive.



► **MASK CLEARING [SEE CHAPTER 4.1 EXAMPLE OF MASK CLEARING LESSON]:**

- Students should be briefed on the function of the diving mask.
- It is necessary to explain that the eye is designed to work in the air not in water, consequently having an air space in front of the eyes will enable the student to see clearly underwater.
- Before fitting the mask, you should explain that hair under the seal will allow water to enter, and that if the mask strap is adjusted too tightly this will cause discomfort and distort the seal.
- Also that a defogging agent or saliva should be applied to the face plate and rinsed prior to use to reduce mask fogging.
- Explain to your students fitting the mask slowly so that they can identify each component part. This enables you to correct your students' performance before a mistake is made.
- Once the mask is fitted correctly, allow the students to submerge their heads briefly.
- Should any water enter their masks, teach them to simply ease the bottom seal from their face and allow the water to drain away.
- Also they should avoid the temptation to remove the mask totally every time a small amount of water enters.
- Clearing the mask underwater involves a more advanced technique, although it is simply a matter of displacing water with exhaled air through the nose into the mask.

► **USING THE SNORKEL:**

- Demonstrate the correct fitting of the snorkel by placing it either under the mask strap or attaching it by means of a snorkel keeper.
- Pay particular attention to the fact that the snorkel should be nearly perpendicular to the surface of the water when being used.
- Students are taught to look downwards and forwards from the front swimming position.
- Ensure that they are not gripping the mouthpiece too tightly, and that the mouthpiece seal is positioned in front of the teeth and behind the lips.
- Initially, let the students breathe through the snorkel without putting their heads in the water, emphasizing the need to concentrate on exhalation, as well as inhalation.
- When you are satisfied that they are comfortable and breathing easily, instruct them to place their head in the water face down while breathing from the snorkel.
- They should then inhale and exhale a predetermined number of times and then surface. This would control the time they spend submerged.

► **USING THE FINS:**

- Fins should be described as an extension of the feet in order to move a large surface area of water.
- Their purpose is to provide more power to move a fully equipped diver through the water.
- While holding the side of the pool or rail, demonstrate the correct leg movement keeping your legs straight with minimal bending at the knees.
- Have your students practice in a similar method.
- Remind them that the fins need to be kept underwater for maximum efficiency.
- You will find that some people are more buoyant than others which tends to make their fins break the surface.
- Adding a weight belt or keeping their hands behind their back will normally keep them in the correct position while finning.



8. UNDERWATER LESSONS :

- The only effective way of teaching practical skills is by demonstration.
- Your demonstrations for the skills need to be progressive and show the details clearly and effectively. Accordingly, your students will copy your performance.
- Teaching the student how to successfully carry out a complex skill in easy when it is done in stages.
- This means we need to fully understand the component parts which make up the whole exercise, for example: removing and re-fitting the mask underwater.
- If there is no one else working in the pool close by, you could place your students with their backs to the wall.
- Alternatively, you could have them facing the wall while you face them with your back to the wall (A). You could also have them face the corner of the pool (B). This would minimize any distractions.



- **UNDERWATER, IT IS IMPORTANT THAT YOU SHOULD BE ABLE TO SEE ALL THE STUDENTS WITHOUT HAVING TO TURN YOUR HEAD TOO FAR FROM SIDE TO SIDE.**
- **THE PACE OF THE LESSON IS IMPORTANT SO THAT STUDENTS ARE NOT TO BECOME BORED.**
- **ONCE IT HAS BEEN ESTABLISHED TO YOUR SATISFACTION THAT A SKILL HAS BEEN PERFORMED CORRECTLY, MOVE TO THE NEXT LEVEL OF THE SKILL OR A COMPLETELY NEW SKILL.**
- **HOWEVER, MAKE TO GIVE STUDENTS ENOUGH TIME TO LEARN THE NEW SKILL.**

- You must be able to see all your students all the time and should any problems arise, be able to reach and resolve them quickly.
- The distance between you and your students, should be as close as possible (within arm's reach) but allowing space to perform skills.
- For static lessons, such as mask clearing, you can arrange kneeling students either in a line or semicircle in front of you.
- The advantage of a semicircle is that your students can also see, watch and learn from each other.
- For lessons that include more movements and require more space, such as when students practice buddy breathing, taking turns to be donor or receive, you could use the diamond position(C). In this position, two students perform the skill between you and the watching students.
- This position ensures you can see and reach all your students.
- If any problems arise with students carrying out the exercise, it can be easily resolved.
- Underwater, it is important that you should be able to see all the students without having to turn your head too far from side to side.
- The pace of the lesson is important so that students are not to become bored.
- Once it has been established to your satisfaction that a skill has been performed correctly, move to the next level of the skill or a completely new skill.
- However, make to give students enough time to learn the new skill.
- If the watching students have a problem, you can reach through the working pair and sort out the problem.



► **STUDENTS ON THE MOVE (CONTROL YOUR CLASS):**

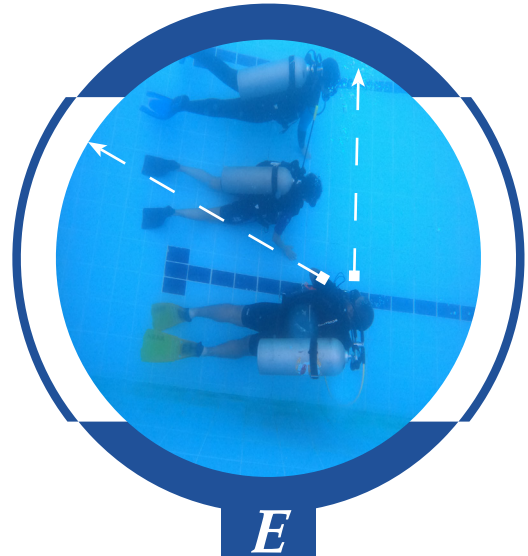
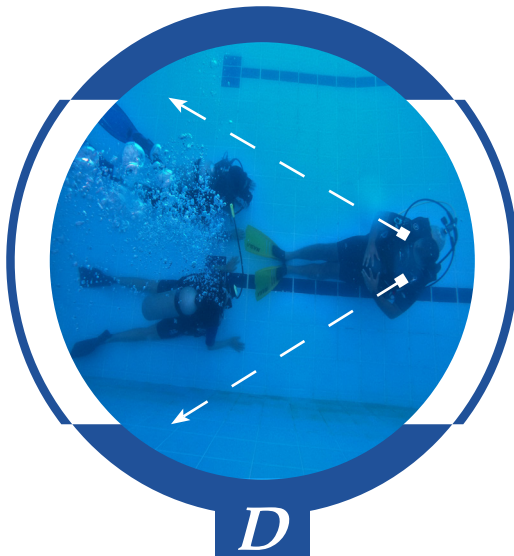
- Progression of skills during a lesson could involve moving students, either on the surface or underwater, from shallow to deeper water.

► **MOVING STUDENTS ON THE SURFACE:**

- You should monitor your students when moving on the surface to and from the point of descent \ ascent.
- It is important to ensure they do not get tired before diving.
- You are more dive fit than your students, so you may need to fin at a slower pace than you would usually in order to stay close to your students.

► **CONTROLLING THE STUDENT GROUP ' ON THE MOVE' CAN BE DONE IN SEVERAL WAYS:**

- You can fin on your back (D) looking behind occasionally to avoid bumping into anything and control the pace and togetherness of students as they fin on their fronts.
- This work well on the surface, as students do not have to keep lifting their heads so they can watch and follow your fins just below the surface.
- You can fin on your front (E), positioned to the side and slightly ahead of the students to keep them all in view.



- Either method means you can monitor your students all the time instead of just finning off in front of the group and hoping that your students are following, not only will you get a stiff neck trying to see if your group is following but, more seriously, you will have lost control when you have not turned around to look at them. Do not get too far ahead of students when finning together.

► **CONTROL AND POSITIONING UNDERWATER:**

- The class needs to be positioned so that they can see the instructor clearly.
- Depending on the skill to be taught, the class will need to be positioned closer to you for skills involving details i.e. mask clearing, and further away for exercises which require more room, such as assisted ascents or controlled buoyant lifts.
- Safety will also play a key role on the distance chosen, in that you should be able to reach and give appropriate physical assistance for each particular exercise.



- **KNEELING FOR ANY LENGTH OF TIME CAN BE UNCOMFORTABLE AND CHILLING, SO VARY THE LESSON TO INCLUDE SOME EXERCISE WHICH REQUIRE MOVEMENT.**
- **DUE TO OVER-BREATHING, BEGINNERS GENERALLY LACK THE FINE BUOYANCY CONTROL, WHICH MEANS THAT THEY MIGHT DRIFT AWAY FROM THEIR ORIGINAL POSITIONS. THEREFORE, IT WILL BE NECESSARY FOR YOU TO RE-GROUP THEM FROM TIME TO TIME.**

► **STUDENTS PRACTICE:**

- Your students will be motivated to attempt the skill themselves, so a period of practice must follow as soon as possible after the demonstration of a skill, and during this practice you should observe the student to analysis faults and plan corrective action if required.
- Skills need time to be assimilated and intervals are desirable between practice periods to avoid staleness and fatigue.
- A change of activity is often enough to serve a break between long periods of practice and particularly difficult exercises. If a class is having problems with a particular skill, give them a break from it by returning to a skill with which they were successful and develop it further , this should avoid them becoming too discouraged about their lack of progress with the new skill.
- A break of this sort followed by a return to the problem is often enough for them to achieve success and move forward.



- **REPETITION OF A SKILL IS AN IMPORTANT PART OF LEARNING, BUT REPEATING AN EXERCISE OVER AND OVER AGAIN TO SOMEONE WHO IS CLEARLY HAVING TROUBLE MASTERING THE SKILL CAN SERIOUSLY DAMAGE THEIR CONFIDENCE AND COULD STOP FURTHER PROGRESS.**

9. PRACTICAL LESSONS IN OPEN WATER:

- This section aims to introduce open water teaching for advanced skills.
- According to the number of students some exercises might have to be done more than once.
- For example, if you are performing exercise (Rescue Skills), it shall be performed more than one time on each group so every student can take turn.
- During the training lessons the instructors will introduce some "incidents" to see how the students will react (the students are told that this will happen).
- It could be: Arm injured from propeller, poisoning from marine life, DCS, loss of diver, headache after diving, drowning in surface, unconscious on bottom or similar.

► EXAMPLE OF PRACTICAL SESSION:

1. LEVEL: CMAS TWO STAR DIVER

- Lesson No.: 2P1
- Lesson Title: Open Water Diving Procedures
- Duration: 120 minutes
- Content:
 - Practice snorkeling skills in open water, medium distance swim with surface dives.
 - Putting on all appropriate equipment for dive, equipment checks, and buddy checks.
 - Water entry, buoyancy checks.
 - Leaving the surface.
 - Buddy diving, conduct during the dive.
 - Exchange signals.
 - Ascent and surface procedure.
 - Leaving the water.
 - Debriefing and equipment aftercare.

2. LEVEL: CMAS TWO STAR DIVER

- Lesson No.: 2P2
- Lesson Title: Rescue skills
- Duration: 90 minutes
- Content:
 - The skills described should be practiced in an open water situation.
 - Towing a victim to the surface, various methods.
 - In-Water rescue breathing techniques for the non-breathing diver.
 - Removing equipment.
 - Towing and landing, to a beach, to a small boat
 - Practice C.P.R with oxygen administration.
 - Complete emergency exercise (First Aid).



3. LEVEL: CMAS TWO STAR DIVER

- Lesson No.: 2P3
- Lesson Title: SCUBA Skills – Open Water Review
- Duration: 90 minutes
- Content:
- Improve diver's confidence by repeating skills acquired in One Star Course in the open water situation.
- Various forms of water entry.
- Buoyancy adjustment procedures, use of weight belt and buoyancy compensator.
- Review surface and underwater signals.
- Remove and refit mask at medium depth.
- Remove and replace mouthpiece at medium depth.
- Practice buddy breathing and use of secondary air supply or octopus.
- Leaving the water, on a beach, into a boat.

4. LEVEL: CMAS THREE STAR DIVER

- Lesson No.: 3P2
- Lesson Title: Underwater Navigation
- Duration: 60 minutes
- Content:
- Using a compass on land.
- Using a compass on the surface.
- Using a compass under water.
- Swimming in straight lines, swimming reciprocal courses.
- Taking bearings and planning courses.
- Measuring / estimating distance.

5. LEVEL: CMAS THREE STAR DIVER

- Lesson No.: 3P3
- Lesson Title: Open water diving procedures
- Duration: 2-3 hours
- Content:
- Identifying area to be searched.
- Select technique to be employed.
- Prepare equipment, brief personnel.
- Carry out search plan, locate object.
- Evaluate object and select lifting equipment.
- Secure lifting equipment and bring object to surface.
- Bring object ashore or to new location.



10. TEACHING IN SHELTERED OPEN WATER (CONFINED WATER):

- The term shallow water is a relative term and can be interpreted in this context as minimum practical depth in which the skill being taught can be performed. The actual depth will therefore vary from skill to skill.
- There is no reason why initial diver training should not take place at a suitable open water site. And it is also the perfect place for the start of more advanced diving courses and also where experienced divers can practice skills or test and check new equipment or configurations.
- For students whose training began in a swimming pool, moving to open water is an exciting time because they are now about to progress to the final stage of their training and do some 'real' diving.
- However, excitement can be associated with anxiety and you need to take account of this large step in their progression. The transfer of pool skills into open water is not straightforward but you can make it easier and then you will see your students do that better.
- There is evidence to suggest that open water training, does help students to adapt more readily to the diving environment.

WHY CONFINED WATER?

1. TO REDUCE RISK SINCE THE USE OF CONTROLLED CONDITIONS INCREASES THE SAFETY LEVEL.
2. TO HELP THE INSTRUCTOR CONTROL THE CLASS MORE EASILY AND EFFECTIVELY.

► PLANING:

- Conditions for basic training in open water are very different to those in a swimming pools. Therefore, the lesson plan will need to consider a number of factors which will probably differ from those which were involved during the planning of a lesson in a swimming pool.
- Entry and exit points are not as easy as those in a pool.
- The main problems associated with open water instruction are usually cold water, low visibility, water movement and the availability of sites which can be used all year round.
- Moving students to and from a swimming pool is relatively simple, but moving them to and from an open water dive site might involve a considerable amount of planning in its own right.
- The venue should, as much as is possible, reflect the advantages of a swimming pool. Therefore, the site ideally should:
 - Be sheltered from the harsh weather elements.
 - Have very little or no water movement, (must be free of any strong tidal flow and, ideally, free of wave action.)
 - Be confined in having a natural boundary, such as rocks or a jetty.





WHEN PLANNING A CLASS IN CONFINED OPEN WATER, THE FOLLOWING FACTORS HAS TO BE CONSIDERED:

- ACCESS TO AND FROM THE DIVE SITE.
- TYPES OF SHORE ENTRY AND EXIT.
- UNDERWATER VISIBILITY.
- ADDITIONAL EQUIPMENT REQUIRED.
- CLASS CONTROL AND SAFETY.
- SEA CONDITIONS.
- OTHER WATER TRAFFIC.
- OTHER WATER USERS.

- Have a flat or gently sloping bottom.
- Have reasonably good visibility.
- Have easy access to entry and exit points (access to and from the water must be simple at all states of the tide).
- Ideally have changing \showering facilities.
- You should check on any safety features pertinent to the site, such as emergency rescue procedures and any accident reporting procedures (you may need to access the shore quickly in an emergency).



- **THIS TRANSITION FROM POOL TO THE REAL THING IS IMPORTANT AND SHOULD BE PLANNED BY THE INSTRUCTOR TO BE AN ENJOYABLE AND MEMORABLE EXPERIENCE FOR THE STUDENT. YOUR ABILITY TO PLAN FOR, AND ANTICIPATE THESE DIFFERENCES COULD DETERMINE WHETHER YOUR STUDENT ENJOYS THEIR FIRST EXPERIENCE, OR ABANDONS THE SPORT.**

There are many variables that you need to take into account, and there are clearly adjustments to be made to accommodate the differences in conditions, equipment and experiences which the student will be exposed to when presenting your lesson, like:

- The choice of site will depend on the type of exercise.
- If visibility deteriorates during the exercise, then you should be ready to move your students a short distance to a clearer site.
- An ideal shore based site would have a gently sloping sandy beach, this gives variable depth and, generally good visibility.

As mentioned earlier, open water will be generally cooler than the pool, if students are forced to remain in the water to the point that they are suffering extreme discomfort, their motivation and attention will rapidly deteriorate. Hence, there are a number of things that can be done to minimize the discomforts of cold:

- Students will be wearing some form of protective clothing, from a thin wet suit to a dry suit, this will have its impact on weights and buoyancy.
- Adequate thermal protection from the elements before and after divers enter the water will help to prevent hypothermia.

- Students should enter the water quickly and begin training without delay.
- The lesson should be planned so that periods of static exercises are interspersed with mobile exercise such as finning, and these should be increased towards the end of the lesson.
- Prolonged submersion can still chill the body.
- Avoid dehydration by drinking plenty of fluids.
- Ensure that the class exits the water before anyone becomes too chilled.
- This transition from pool to the real thing is important and should be planned by the instructor to be an enjoyable and memorable experience for the student. Your ability to plan for, and anticipate these differences could determine whether your student enjoys their first experience, or abandons the sport.



- **OFTEN DIVERS ARE TRAINED WEARING FAR TOO MUCH WEIGHT. THIS NOT ONLY INDICATES A LAZY INSTRUCTOR BUT ALSO COULD LEAD TO MORE SERIOUS PROBLEMS LATER ON, PARTICULARLY IF A RESCUE SITUATION ARISES.**
- **IF STUDENTS ARE WEIGHTED CORRECTLY THEN IT MAKES BUOYANCY CONTROL MUCH EASIER TO TEACH AND STUDENTS WILL FEEL COMFORTABLE MORE QUICKLY TO BE ABLE TO PROGRESS THEIR SKILLS.**

▶ **10 METHODS FOR ORGANIZING AND CONTROLLING CONFINED WATER TRAINING:**

1. Provide in advance a checklist indicating: site location, equipment to bring, and general rules.
2. Use qualified assistants, especially with a large number of students.
3. Use the facility to control the students, for example: in the swimming pool, you can use the pool lanes or shallow and deep areas etc.
4. Communication and clear hand signals are very important. If you cannot communicate, you cannot teach.
5. Keep away any distractions. Distraction needs to be minimized to get the most out of the student.
6. Train the student to dive with a buddy, it will make it easy to control both divers.
7. Give periodic breaks, the student may be cold, tired or uncomfortable: need to have a break
8. Be prepared for problems, have more than one way to teach the skill, bring extra equipment, and do not let anything surprise you.
9. Develop skills one step after the other and monitor the skill progression.
10. Make proper planning, taking into consideration all circumstances such as, pool size, number of students, number of assistants, travel time and dressing time, and anything that might affect the lesson.



10.1 SHORE BASED LESSONS AND DRY-RUNS:

- This method of dry run means that you and your students are simulating exactly what will happen underwater. As a result, the subsequent underwater session will run much more smoothly.
- It allows the instructor to discuss with the students throughout the lesson, and hence the usual demo\mimic technique can be supplemented by coaching techniques.
- Dry-runs can be effectively used to supplement theory lessons. For example, diving into open water for the first time, may require student to wear a number of unfamiliar pieces of equipment which were probably not used during initial training. For example: thermal and protective clothing (a dry suit, wet suit, gloves, vest, etc.). It could also involve wearing equipment such as a diving knife, watch, depth gauge or compass.
- The function and use of some items can be explained quickly and simply, while others will require longer and more detailed explanation. For example, to teach the use of a diving compass would require a theory session, a dry -run and an open water lesson, whereas to teach the use of a diving knife could take only a few minutes.
- A few moments of explanation or demonstration can and will improve the student's understanding and gives you an opportunity to teach them to use it properly and safely.

▶ **EXAMPLE OF USING A DRY RUN FOR THE FIRST USE OF A COMPASS LESSON:**

A dry run is a useful start to teaching how to use a compass for the first time in open water.

- In planning this lesson, use the same bearing on dry land as in the water so it can be used to travel out from and back to the starting point.
- You can use a natural feature that can be seen above and below water, or use two SMB datum lines to mark the start and turn around point.
- Any special signals you or the students will need to use, such as 'use the compass', can be introduced during the dry run.
- Introducing your student to the equipment and allowing them to handle it before going underwater is an important step in your lesson plan.

▶ **STEP1 INSTRUCTOR DEMONSTRATES USING A COMPASS:**

- Take and read a bearing on an object about 20 meters away. Keeping the distance to travel relatively short means less likelihood of error and builds students' confidence in 'believing' the compass.
- Mark the starting point on the ground from where you have taken the bearing.
- Walk forward using the compass to stay on the bearing and count aloud your paces until you reach the object.
- You need to establish the method of counting to be used underwater when using fin strokes. It is generally easier to count each right foot 'down' as a fin stroke as 1,2,3...
- Turn around and demonstrate how to find the reciprocal bearing.
- When demonstrating, walk forward using the compass to stay on the bearing, counting out loud the number of paces you took on the outward leg, you will return to your start point.



- All the way through the demonstration reinforce the importance of holding the compass level and to the center line of the body.
- Student mimic.
- This practice establishes (or recaps if they have used a compass as part of a theory lesson) how to use a compass for a simple out and back journey.

► **STEP 2: PAIR UP STUDENTS TO CARRY OUT A SILENT DRY RUN:**

- Repeat step 1 but, as you lead them through it, get the students to work in silence only using signals - this is preparation for transferring the skill underwater.
- The students who is using the compass takes the role of 'leader' and the other the 'counter'.
- This instructor needs to ensure the students understand that, in working together, the leader is the one who has the compass and gives the 'go' signal when they have the correct bearing.
- The buddy counts paces for the outward journey and stops the leader when the object is reached. They both turn and the leader establishes the reciprocal bearing before giving the 'go' signal for the return journey, the buddy counts the number of paces taken on the outward leg to give the stop signal on the return leg, both students check they have finished where they started.
- Repeat the above with the two students swapping roles.
- This step builds on step 1 but involves both divers as a buddy pair on the exercise and the importance of working together. You will be working with the students to help establish who does what in their respective roles and checking correct compass use. Running this step 'silently' for the students develops the special signals they will use underwater.

► **STEP 3 (IN WATER) STUDENTS PROGRESS TO USING THE SAME BEARING:**

- If surface conditions are relatively calm, the instructor should re-demonstrate setting the bearings and correct body position when holding the compass.
- Step 2 can be repeated on the surface using a natural feature or to set the datum SMBs in position.
- If using datums, you should give a partial demonstration of deployment so each student can have a go and complete the full deployment.
- You can fin alongside the students as they run the exercise checking bearings, position of compass and students' buddy work and correct if necessary.
- If the surface conditions are too uncomfortable, then progress to step 4 but using the datums as normal SMBs with a small weight on the reel to anchor the start and turnaround points on the seabed.

► **STEP 4 STUDENTS CARRY OUT UNDERWATER COMPASS EXERCISE:**

- Following descent and normal diving checks and a demonstration of the correct body position when holding the compass, you indicate who is the 'leader' and let the students start the exercise and repeat, reversing the roles.
- The instructor should monitor students all the way through the exercise and, if they do go more than slightly, correct by demonstration.



► **WATER ENTRY:**

- Entry to and exit from the water can present a challenging experience for those experiencing this for the first time, so we need to consider the safest and easiest way to enter the water.
- The seabed is rarely flat and smooth so we will need to consider where to kit up particularly fitting fins.
- Always remember that it is generally easier to get in than to get out, so ensure you pick your site carefully, paying particular attention to weather and tide changes (e.g. what may be an easy entry at high water may give an extremely difficult exit at low water).
- For an entry from a sloping shore, it might be better for the students enter the water, and support each other whilst fitting their fins and then walk backwards into the deeper water. Remember that this is much safer if the students are all wearing their masks, using their snorkel or regulators and with air in their buoyancy compensators.
- A first dive should ideally be from shore with a gently shelving bottom which allows the students to gradually increase their depth and thus keep within their capabilities, as it is not a great deal different from the depth they have experienced in the pool.
- Entry from a boat or from a jetty might easily be one of the techniques taught during swimming pool training - silent entry, step - in entry, forward roll or backward roll. Similarly, exit from the water and into the boat will have been practiced before.
- It is always a good idea to teach the class members an appropriate entry and exit rather than let them look after themselves and hope that it might be right.
- Remember that you, as the instructor, are always first into the water and last out of the water to ensure you give your students adequate safety cover.

► **TEACHING BASIC SKILLS IN CONFINED OPEN WATER:**

- Some basic techniques only require that the student is fully submerged. Safety considerations require that some initial skills training occurs in slightly deeper water.
- The first time that a student is taught mask and mouthpiece clearing requires water as shallow as chest depth, by kneeling down the student "fully submerged" but with ready access to the surface (that for both confidence and safety considerations).
- Other more mobile skills also only require a depth of water. Looking again the example of compass navigation, once the student is submerged, even in as little as 1.5 m of water, they will no more be able to see their target until they are very close to it than if they were in much deeper water (the objective has thus been achieved).
- Teaching in open water means thinking through the steps of the skill taught in the pool and adapting them to build up your open water lesson plan, for example: a mask clearing lesson.

10.2 EXAMPLE OF FIRST OPEN WATER MASK CLEARING LESSON (MAIN SKILLS PART):

▶ ON SURFACE -BEFORE ENTERING WATER

- Instructor checks that students' mask straps have been adjusted for wearing a hood.
- **STEP 1:** instructor demonstrates with hood and gloves on:
 - Rinse mask.
 - Fit the mask - clear strap away from mask but in a position where it can draw over the head without twisting and holding mask in one hand, with other first check face clear of hair and then using the thumb inside mask strap place mask on face making sure it is clear of the hood, draw strap overhead.
 - Check seal and if strap twisted.
 - Students mimic.

▶ IN WATER- STANDING DEPTH

- **STEP2:** instructor demonstrates a recap of clearing actions:
 - Head slightly down, holding mask, breathe in through regulator. Breathe out through nose, tip head back and gently 'rock' the bottom of mask to ease the seal to direct expelled breath.
 - Repeat a couple of times to establish the rhythm of head down, breathe in through regulator, breathe out through nose and tip head back and 'rock' bottom of mask.
 - Student mimic.
- **AIM:** to build a rhythm and they should feel their breath escaping at bottom of mask.
 - Note; masks may fog and require re-rinsing.

▶ IN WATER- STANDING DEPTH

- **STEP 3:** instructor demonstrates breathing without a mask:
 - Without mask but with regulator in, learn forward, suitably supported and place face, eyes shut, in water and breathe off regulator for 5-8 min.
 - Tell students initial breathing may quicken as a reaction to cold water, then it should settle down, (breathing rates may well increase, so, diving gas supply should be carefully checked throughout the lesson).
 - Student mimic.
- **AIM:** to build confidence breathing from regulator with no mask in cold water.

▶ UNDERWATER - KNEELING IN STANDING DEPTH.

- **STEP 4:** instructor demonstrates actions to clear mask.
 - Head slightly down, holding mask, breathe in through regulator, breathe out through nose, tip head back and gently 'rock' the bottom of mask to ease the seal -show bubbles escaping.
 - Repeat a couple of times to establish a rhythm.
 - Student mimic



► **STEP 5: INSTRUCTOR DEMONSTRATES CLEARING A SMALL AMOUNT OF WATER:**

- Slightly ease side of mask to allow small amount of water to enter mask.
- Cold water may increase breathing rate so allow breathing to settle before next action.
- **Clear mask:** head slightly down, holding mask, breathe in through regulator, breathe out through nose, tip head back and gently 'rock' bottom of mask to ease the seal.
- Student mimic.

► **STEP 6: INSTRUCTOR DEMONSTRATES CLEARING A FULL MASK:**

- Slightly ease side of mask to allow water in halfway.
- Allow breathing to settle before next action.
- Clear mask as in step 5.
- Student mimic.

► **STEP 7: INSTRUCTOR DEMONSTRATES CLEARING A HALF-FILLED MASK:**

- Slightly ease side of mask to allow water to fill mask.
- Allow breathing to settle before next action.
- Clear mask as in step 5
- Student mimic.

► **STEP 8: INSTRUCTOR DEMONSTRATES CLEARING A HALF-FILLED MASK:**

- Remove mask completely
- Allow breathing through regulator to settle before next action.
- Feel for nose piece (to ensure mask correct way up to replace on face).
- Clear strap away from mask but in a position where it can down over the head without twisting.
- Clear face of any hair replace mask onto face with one hand.
- Check hood not caught under mask.
- Clear mask as in step 5.
- Still holding mask with one hand, with other put the thumb inside mask strap and draw overhead.
- Check mask clear again if necessary and check if the strap is twisted.
- Students mimic.

Another example of how a pool lesson needs to be restructured when taught in open water is teaching buoyancy skills, as there are differences between teaching a pool lesson on buoyancy using only a BCD and using a BCD and dry suit in open water.

One other crucial thing to remember is that when you are transferring a known skill (one that students have achieved in the pool) for the first time into open water you must demonstrate all the steps of that skill, with any adaptations or additional steps to your students, they will certainly realize the similarities to their pool sessions, but everything around the skill will be totally new and feel very different, nervousness or apprehension can make them forget something very basic.

10.3 UNDERWATER MOVEMENT AND VISIBILITY:

- Visibility will normally be less than what trainees have experienced in a swimming pool. Also points of reference such as pool walls will be absent.
- Some open water venues have training platforms marked by buoys where lessons can be conducted.
- If there are no good reference points, you can use a surface marker buoy, a datum line or focal points, such as a rock face, jetty wall, or pier supports will give a good underwater reference point.

► YOU CAN MODIFY YOUR NORMAL DIVING SMB IN THE FOLLOWING WAY:

- A weight is attached to the karabiner or connector on the line where the SMB buoy is usually connected.
- The buoy is securely attached to the SMB reel itself.
- The instructor can take the SMB on the surface to the planned training site and, releasing the reel, drop the weight to the bottom.
- Ensuring there is reasonable tension on the line to avoid loose line impeding your students, you can lock off the reel and let go.
- The buoy supports the reel and line and becomes a mini shot-line that you and your students can use for descent and ascent.
- On the bottom and working next to the datum, the line becomes the focal point - the comfort factor that the students know goes to the surface.
- Back on the surface after the underwater session, you simply reel in the weight, students can become involved in helping to lift the line to assist the reeling in of the weight.
- As SMB can be used to keep students together on descent \ ascents. When moving students on the surface it can sometimes be difficult to keep them together. As a last resort, if there is a lanyard on the reel, ask one student to hold the reel and the others to hold onto the lanyard- you can then move them in groups, you will probably only have to use this technique once for students to realise the importance of staying together.



- *Working close to a reference point, using either an underwater physical feature or an SMB datum line during your lesson, helps boost their confidence. This can be important if visibility is reduced as it can be quite scary for trainees.*

► **IN POOR VISIBILITY:**

- Visibility maybe reduced due to plankton, suspended matter or just due to the lower light levels at depth, any bottom sediment stirred up by the class will further reduce visibility.
- If the students cannot see the instructor properly, they will be unable to copy the demonstration. This might be partially compensated for by teaching a smaller group, so that the students and the instructor can be closer together.
- Always ensure that the class is positioned in such a way that they are all as comfortable as possible, and can see your demonstration and that you are able to immediately carry out corrective action when needed.

10.4 DEEPER WATER (TEACHING MORE ADVANCED OPEN WATER LESSONS) :

- The basics skills can be mastered in very shallow water they will inevitably require progression to deeper water. These lessons for trainee who have qualified and other divers progressing through the diving grades.
- Simple skills such as mask and regulator clearing can only be repeated in deeper water once the students' overall experience has increased to allow this. Applied skills, such as navigation etc., being learnt by more experienced divers can be progressed into deeper water much more rapidly.
- The progression to deeper water introduces the student to new aspects of the skills concerned. For basic skills there is the need for confidence building, combined with the need to repeat certain skills periodically to ensure that the student remains in practice.
- The depths at which the various diving skills are taught generally follow a progression, with skills initially being taught in safe shallow water once the basics of the skill have been mastered, this skill is then built in less benign conditions and deeper water. Depth is therefore one aspect of training progression, but one which can have safety implications.



- **THE BASIC LESSON STRUCTURE USED IN POOL OR SHELTERED WATER LESSONS IS STILL APPROPRIATE TO MORE ADVANCED LESSONS, ALTHOUGH THE CONSIDERATIONS THAT NEED TO BE TAKEN INTO ACCOUNT FOR EACH ELEMENTS EXPAND SOMEWHAT.**

► **DECOMPRESSION CONSIDERATIONS:**

- Decompression considerations are generally regarded as a factor met only in deeper diving.
- Teaching some skills such as assisted ascents or controlled buoyant lifts can involve decompression considerations in very shallow water due to multiple ascent or ascent rate considerations.
- Repeated ascents and descents should be avoided wherever possible. Training should be planned such that the number of repeats is minimized
- The instructor has to be in the best position to intervene when safety demands, especially in lessons involving ascents, where it is essential that uncontrolled ascents are anticipated and prevented.

► **UNDERWATER DISTRACTIONS (TEACHING DIVERS TO ENJOY THEMSELVES):**

- One major distraction when teaching underwater can be the marine life, but as this is the reason why we all learn to dive, it adds to the lesson.
- Where many divers miss seeing a lot of interesting objects underwater such as parts of wrecked ships or marine life purely because they have not been taught how to look for them. you are not only teaching diving skills but also introducing students to the ever-moving world underwater and taking 'time out' of a lesson to look around is part of the whole process of learning to dive.
- it is also an excellent opportunity to demonstrate how to appreciate life underwater, such as how to move slowly so as not to frighten the fish, checking the seabed before kneeling on it (particularly in warmer climates where urchin spines can be a hazard) and the importance of not touching reefs and corals.
- Also, many divers inadvertently cause a lot of destruction underwater because they have not been taught how to avoid causing damage with their fins or when grabbing hold for rocks covered in encrusting life.
- The protection of the underwater environment so that we will be able to continue to enjoy it in the future is an important aspects of diver training that is most effectively carried out underwater. Although not a formal 'skill' as such, it is still an aspect which can be approached using the same lesson structure although on a much more informal basis.

10.5 **CLASS CONTROL IN OPEN WATER LESSON :**

- Open water, by its very definition, means that you are taking students into an area of water which does not have the tightly defined boundaries and thus, class control is of paramount importance, especially with some exercises, the class might be moving (i.e. use of a compass for navigation) and the instructor needs to pay particular attention to the need for control of a moving group.
- Control of the class underwater is very much the same problem as it was in the swimming pool, taking into account the possible problems caused by variable underwater visibility and bottom quality. Students should be aware of what to do in the unlikely event of separation underwater" one up, all up".
- You must at all times be able to see and monitor all of your group, this can be achieved by: the instructor in front of the group swimming backwards (with the instructors swimming on their back) or positioning themselves just to one side of the group or just ahead of the group, but in reduced visibility it can sometimes be difficult to maintain contact with the furthest student, you
- can also keep a watch on students from above but in this way, your students can't see you.
- Whatever position you choose, you need to establish this on the dry run together with any signals you will need.

► **TEACHING EXITS FROM SWIMMING POOL AND OPEN WATER:**

- At the end of the session, the Instructor moves group to safe exit point, removes kit, assists students out of the pool.
- The ascent and transit to the point of exit will require tight class control, to ensure that all the class surface close to any surface marker buoy used, and also to ensure that the class remains together until they have left the water.
- The exit procedure will also require that any additional equipment used as part of the lesson will need to be retrieved



► **IMPORTANT TEACHING POINTS ON EXIT:**

- Keep regulators in the mouth at all times while exiting. Remember, you are teaching in preparation for diving in open water, if students see you taking out your regulator on the surface they will assume they can too, if transferred into open water the habit could cause problems especially with a choppy surface or badly controlled buoyancy
- Your 'in water' control using good, clear signals should mean you do not need to remove your regulator.
- When using ladders, keep the bottom clear in case someone falls back. Most swimming pool ladders or boat require the removal of fins to climb out. If you do this on a demonstration, you should refit them when getting back into the water, because if someone fell in, you would not be able to offer much help with no fins on.
- You must also remember that you are a role model and students absorb everything you do, if you do not replace your fins you are indicating that it is ok to be in deep water without having them on, if this habit then gets transferred into open water, students could have real problems, being in the water with full diving kit but without fins.
- You can direct them to move away from the top of the ladder to allow clearance for the next students.
- Use the easiest exit possible in the early stages of open water.
- As the instructor, you should be the last person in the group to exit the water so you can immediately interfere if students have problems in the water.
- The students should be gathered for a debrief.



- **ALTHOUGH A REGULATOR CAN BE REMOVED WHEN IT IS A FLAT CALM SEA SURFACE, HOWEVER, CONDITIONS COULD CHANGE. THEREFORE, KEEPING REGULATORS IS WHEN MAKING ENTRIES AND EXITS AND WHEN ON THE SURFACE IS DONE FOR SAFETY. KEEP YOUR OWN REGULATOR IN, REMEMBER THE EXAMPLE YOU SHOULD BE SETTING.**
- **YOU SHOULD BE ABLE TO SIGNAL WHAT YOU WANT YOUR STUDENTS TO DO WHEN ON THE SURFACE.**

► **MISTAKES CORRECTIONS AND ANALYSIS:**

- Following your demonstration, the student will attempt to mimic your performance, during this period you can evaluate their ability to perform the skill to see if they have reached the required standard. Your 'in water' control using good, clear signals should mean you do not need to remove your regulator.
- If the skill is not being performed correctly, you should stop the practice session and repeat the demonstration, concentrating on those parts of the skill which are went wrong, and on what action they should take to perform the skill correctly.
- If they continue to perform the skill incorrectly, then analyse your own performance to see whether your demonstration was clear and unambiguous, or if a further demonstration shown from a different angle will help the students to comprehend the particular skill.

- The practical session can then be repeated and you can continue to analyse their performance.
- It is essential that all skills are learnt correctly until they become a habit.
- Knowledge of personal performance following directly after the practice period is essential for progress, this will help to sustain motivation.
- If the information that was given to students was more specific, that means it will be greater value to the students. This emphasizes the need for clear and concise de-briefing sessions following closely upon skill practice.



- **OVERLEARNING ESTABLISHES THE SKILL FIRMLY IN THE MEMORY AND ENSURES THAT IT WILL BE THERE AT THE RIGHT LEVEL WHEN IT IS NEEDED EVEN IN AN EMERGENCY SITUATION.**

► **DEBRIEFING:**

- Bring the students together in a similar place as for the brief.
- Generally, this will be more effective if done immediately while the exercise is fresh in the students' minds, but, if this means standing around in extreme climatic condition, either hot or cold, it will generally be better to delay the debrief a short time until the class can reassemble in a suitably sheltered environment, in these circumstances a delayed debrief will be more effective.
- Encourage each student to work on weak areas.
- If there were any incidents, briefly sum up the occurrence, what happened and how this could be prevented.
- Ask for questions or feedback from students, answer if possible, and ensure to get back to student if you cannot respond at the time.
- At the end of session, encourage the students to return next time/week/session.
- Report all incidents to shore/pool Marshall.

10.6 ASSESSING PERFORMANCE :

This part will be divided to two sections

► **ASSESSING YOUR STUDENTS' PERFORMANCE:**

To move through each progressive step you need to monitor your students closely and ask yourself a number of questions.

- Check if your students understood your demonstration and mimicked it successfully?
- Are they comfortable with the skill?
- If they are looking confused, it was probably because your demonstration was not clear enough, too rushed or they could not see all the actions. Slowing it down or re-positioning yourself to ensure students can see exactly what you are doing will help.
- You need to decide when it is necessary to move the lesson on so that all the class can progress and avoid potential embarrassment for one of the group. You can do that by:



1. Try a different skill and then return to the problem and try again. After a break, the student may master the skill. You need to decide when it is necessary to move the lesson on so that all the class can progress and avoid potential embarrassment for one of the group.
2. Another technique is to have a 'break out' session and have fun with what students have learnt. Devising games, such as using hoops underwater to create a 'buoyancy' obstacle course, can increase general confidence and you may even find that students automatically do something they had a problem with, such as mask clearing, without even thinking about it.
3. If there are still difficulties, it may be necessary to leave it until the next session, sometimes, a particular skill cannot be achieved during a lesson. This will allow you time after the lesson to discuss and perhaps understand why the student is having a problem and see if there is a better way to achieve the skill. In addition, input from other instructors can be canvassed so you can come up with an alternative approach.

► **ASSESSING YOUR LESSON:**

Run through any practical session you have taught, re-play it in your mind and ask yourself the following:

1. Did I use a concise relevant brief?
2. Was it built around (SEEDS) safety, exercise, equipment, discipline, and signal?
3. Did I use a dry run if appropriate?
4. Was kitting up safely done in buddy pairs and taught to trainees
5. Was a buddy check done, taught to trainees?
6. Was the entry safe and controlled, taught to applicable?
7. Did I control students and were they safe on surface swims, if applicable?
8. Did I control students and were they safe during descent and ascent?
9. Were dive gas, depth and time monitored?
10. Did I use a safe appropriate depth location for the lesson?
11. Were any demonstrations and signals clear so students could see and understand them?
12. Did I repeat demonstrations when using a student as a 'casualty'?
13. Did I demonstrate and did students mimic each step?
14. Did the lesson run in a logical, progressive manner?
15. Did I recap known skills before teaching more complex skill, if applicable?
16. Did I assess and correct if necessary?
17. Did I make the most effective use of time?
18. Was the exit and de-kitting safe, controlled, taught where necessary?
19. Was my debrief concise, encouraging, built around (REAP) review, encourage, assess, progress?
20. Did I take due account of conditions for student comfort?
21. Was I able to motivate students even further?
22. Did I have any problems with kit or kit configuration?

11 THE EMERGENCY PLAN:

During the training lessons, the instructors should introduce some "incidents" to see how the students will react (The students are told that this will happen). This is obviously subject to the students' level of experience. It could be:

- Injured arm from propeller.
- Poisoning from marine life.
- CBL
- DCS.
- Lung Barotrauma.
- Loss of diver.
- Headache.
- Drowning
- Unconscious on bottom.
- The incidents are carried out including the students' demonstration of first aid.
- This lesson, like all practical lessons, should be broken down into steps, with instructor demo\student mimic for each step.

► **FOR EXAMPLE, THE PROBLEM OF CONTROLLED BUOYANT LIFT (CBL) CAN BE MANAGED THROUGH THE FOLLOWING STEPS:**

1. Each student carries out a self-lift using his/her own buoyancy just enough to clear from bottom of the pool. This is the known skill level check before the introduction of the main skill, and watching students have the chance to recap on each other's buoyancy controls.
2. The rescuer achieves a good grip on the casualty, placing their other hand on BCD controls ready for lift.
3. The rescuer performs a small lift of the casualty just clear of the bottom of the pool. In deeper pools you can add an additional step where the rescuer performs a larger lift of the casualty half way to the surface.
4. The rescuer performs a full lift of the casualty to the surface following the surfacing procedures. The casualty is made buoyant and the rescuer makes themselves buoyant.
5. As long as the instructor, who is monitoring and moving with the working pair, can see the students on the bottom and can reach them quickly if they have a real problem, they remain in control of the group.
6. On the last step, however, the surfacing actions will need to be seen by all the students as part of the instructor demonstration, so all students will need to ascend together.
7. When students take on the roles of rescuer and casualty use the diamond position to maintain control of everyone. This also prepare students for what is likely to happen on this lesson in slightly deeper open water when visibility maybe restricted and they will need to ascend for each lift.



- **GOOD SAFETY PRACTICES, ADEQUATE PLANNING OF DIVES AND FAMILIARITY WITH EMERGENCY PROCEDURES SHOULD PREVENT MOST ACCIDENTS.**
- **WITHOUT AN EMERGENCY PLAN YOU CANNOT MANAGE A DIVER RESCUE.**
- **IN ORDER TO MANAGE A DIVER RESCUE WE MUST KNOW HOW TO CONTROL AND ADMINISTER THE RESOURCES AVAILABLE TO US.**

12. THE IMPORTANCE OF A GOOD EXAMPLE:

- When a student first learns to scuba dive, their instructor is often the first diver with whom they have had any real contact. This will therefore have a significant effect on how the students subsequently behave as divers. If the instructor acts in a careless manner, then it will not be surprising that the students' approaches diving in the same manner. Not only will this cause training to take more time than necessary, but also there is an inherent danger.
- Even when they are not specifically training, instructors will still be looked upon by less experienced divers as an example to follow. For instance, if the instructor's equipment is poorly treated and maintained then this will be interpreted as a satisfactory standard. An instructor's bad habits are thus, by default, passed on to the lesser experienced.

Instructors must accept that they are always 'on parade', not just when teaching a specific lesson, and should ensure that their example is worthy of being followed.

► TIPS:

- Do not give a higher skill before you are satisfied with the first one.
- When in a practical session, avoid questions which require verbal answers, verbal answers will lead the student to stop the exercise and to take off the regulator, which will cause a loss of time. Under water you can use hand signals, written messages etc.
- Reinforce the good performance, always encourage the students.
- Let the student enjoy the training by involving them in games and contests.
- During demonstrations, you should avoid the temptation to show off your own ability. Students should be left with the impression that what they are being asked to do is an easy and an achievable objective, not something that requires years of experience.
- Constant surfacing for further briefing is a sign of poor underwater communication skills, or poor demonstration skill and is not an indication of effective instruction.
- It is essential, therefore, that your equipment is in good condition and that you treat it with the respect that it deserves.
- It is essential that the instructor checks each and every item of equipment worn by each student to ensure that it is correctly fitted and in good working order.
- Having planned and prepared a practical session, it is a really good idea to carry short lesson notes that can be quickly referred to when trying to remember the key points you want to mention
- Even very experienced instructors carry some form of prompt notes and refer to them above and under water to ensure that what they planned is what they are teaching.





CHAPTER 4

ENSURING ALL YOUR STUDENTS ACHIEVE



1. ENSURING ALL YOUR STUDENTS ACHIEVE:

One of the more difficult tasks being an instructor is to evaluate and assess the students and consider when they are good enough to be certified as divers.

During assessment process there may be additional factors that you will experience as an instructor, whether with an individual student or a group of students, so here are some factors you should consider:

► DEALING WITH SLOW AND FAST LEARNERS:

When working with groups of students you might find that some are slow or find learning skills difficult, while others will take to it easily.

- **SLOW LEARNERS** need to be encouraged and developed without them feeling embarrassed or awkward. Maybe you find some students who find some of the theory hard to grasp and you can help them by a revision session.
- It is normal if some students find one particular skill easy and find another one much more difficult.
- If one skill is achieved during a lesson then it can be considered a success, especially when a student achieves a skill that he/she has been struggling with.
- Real teaching is not about getting through a whole lesson in the prescribed time, it is about doing it effectively, and ensuring your students understand; this will help them feel better when they are trying to master skills.
- Slow learners quite often develop to become very good instructors. The logic behind this is that those who did not find everything easy when they learned to dive, or when extending their own diving skills, are good at empathising with others who find themselves in the same situation.
- **FAST LEARNERS** on the other end of the scale are the students who learn really quickly. Maybe this makes you think your task appear easy although actually, it does present potential problems in its own right, because:
 - If the students find all the theory or the pool\ sheltered water skills simple to learn, they tend to become over confident and this could lead to them failing to learn thoroughly.
 - In the class room, you may find that although someone learns diving theory quickly, they quite often do not relate it to practical diving.
 - When teaching practical skills, you need to reemphasize your teaching points considering that this might slow down fast learners, but should not demotivate them. For example, if mask clearing is the skill being taught, ensure that the students follow each step you demonstrate rather than doing the whole skill in one go. The reason for this is not to hold them back, it is to ensure that if the conditions get more challenging, as would happen if a mask got dislodged on a dive, then they know the steps necessary to correct the situation. Teaching the quick learners rapidly is perfectly acceptable as long as it is thorough.

► **BALANCING YOUR STUDENT GROUPS:**

Instructors are often asked, to teach two or three students at once. When this happens sometimes fast learners embarrass the slower members of the group who may end up apologizing unnecessarily for their rate of progress.

Therefore, to maximize efficiency, talk to other instructors and try to balance the student groups according to their skills.

► **FACTORS TO CONSIDER:**

→ **AGE:**

Learning get harder as we get older. Youngsters tend to learn quickly but are sometimes impatient or overenthusiastic.

You will need to adapt your approach to the lesson, because of:

- Older students probably will not have a problem in doing exactly what you want them to do as long as it is at the right pace.
- Younger students may require far more concentration during briefing, and good underwater discipline, to achieve.

→ **EXPERIENCE:**

Those who have tried diving or snorkelling before will often be quite skilful already. Some may fall into the fast learner's category so dealing with over confidence maybe an issue, others may be extremely wary having had a bad experience before.

The key to getting balance right is finding out about your students, checking the quality of their skills and, at the same time, moving them on at an appropriate pace.

► **SWIMMING ABILITY:**

There are potential divers who want to get involved in the sport who have little or no swimming skills. Most diving organizations do not expect a high level of swimming skills, but learning to dive often increases swimming confidence.

You can help the poor swimmers gain even more confidence with additional sessions of swimming and snorkelling as well as teaching them to dive.

► **WATER CONFIDENCE:**

Some excellent swimmers are not comfortable underwater while others with less swimming experience do not find it a problem.

You need to judge the confidence level of your students and build it up progressively.

Do not rush students who are particularly anxious.

Diver training programs are designed to progress student's skills gradually from shallow to deeper water with the aim of increasing confidence and aptitude.

This of course is repeated when moving into open water where the stakes are all increased. You may need to move more slowly to help students develop their confidence.

► **ENTHUSIASM:**

Enthusiasm means interested and committed students, but overenthusiasm can lead to carelessness or lack of concentration.

You need to keep a good momentum so students do not get bored but, at the same time, ensure that they do not overstep their ability at any stage.



► PARTNERS:

Partners will often want to learn dive at the same time so when they qualify they can dive together. Training a couple as a buddy pair from the start of their training to qualification would seem like a good idea. However, familiarity between the couple can often cause problems and create extra pressure if one learns or adapts faster than the other, criticism or friction might ensue.

It is generally better for the couple:

- Split them into different student groups.
- They can learn and develop as individuals rather than a pair.
- When both are competent, reuniting them will allow familiarity to be established.

► DIVERS WITH A DISABILITY:

People with a disability or special need benefit from going diving, they may gain increased mobility, increased muscle tone, confidence and, motivation to succeed.

As an instructor, understanding the nature of the disability is key to adapting training. Hence, instructors should have the flexibility and ability to adapt techniques and incorporate them into their teaching. The most important thing is to have a completely open mind and put yourself in the place of your student.

If your student has a physical impairment, talk to him before you start teaching to understand how they compensate in everyday life, these adaptations will help you when teaching. Work out how to demonstrate the skills in a way that the student will be able to mimic, taking into account the disability as much as is possible.

One important thing to remember is that having a physical impairment may mean partial or complete loss of sensation in a limb or limbs and student may not be aware they are getting cold or injuring themselves.

Remember to think outside the box, for example, a paraplegic may not be able to move their legs but ankle weights and fins can often act as stabilisers. Their upper body and arms can be very strong, with a comfortable attitude in the water underwater buoyancy can be controlled well.

Your relationship with the student is very important:

- Listen to what they suggest and adapt your techniques accordingly.
- They will feed back what they found easy or difficult.

Sometimes you will have students with severe enough disabilities to always need not one but two buddies to dive with or a surface diver always on standby.

► TEACHING CHILDREN OR VULNERABLE ADULTS:

When teaching, it is essential to maintain control to ensure safety. Therefore, it is strongly recommended that you do not teach minors or vulnerable students on your own but have another instructor with you at all times. This is not only to protect the safety of the students but also to help you.

Always explain to minors or vulnerable adults and their carers what you will do, and obtain consent from both the student and their carer/guardian before performing the demonstration.

If you need any advice on teaching minors or vulnerable adults, contact your diving organisation who will put you in contact with one of their instructors or their specialist in this area who can advise you and who can offer you any courses they may run.



→ ASSESSING PERFORMANCE AND PRACTICAL SKILLS:

As with all sports which carry an element of risk, the quality and effectiveness of the training given are vital. So, there must be a process for measuring performance at regular intervals throughout a training programme to know the students who are not learning up to standards and given them corrective instruction before bad or dangerous habits become too firmly established. This is critical not only for their own wellbeing, and the students' own safety but also for the safety of those they will be diving with.

So, as an instructor you should be able to:

- Assess and examine the students and consider when they are good enough to be certified as divers. Students are assessed on their proficiency in the practical skills of diving, and on their understanding of the essential theoretical aspects during and on completion of training.
- Assessing students' capabilities is very important in progressive instruction to enable you to make good decisions about whether students can progress to the next step or have reached the required level for qualification towards a diving grade\ certificate.
- The CMAS certificates are an equivalence system stating the levels to be reached, and this certificate is not a receipt for attending a course of a specified duration but is a quality stamp telling the level the diver has reached in his skills and knowledge, and this puts a lot of responsibility on the instructor, who is the one judging if the desired level is reached or not.

Poor instruction comes from poor instructors, because of this, applying lesson analysis is essential. This process not only reveals weakness in the students' abilities but also in your performance as an instructor. The lesson analysis should be applied and tests conducted to measure overall competence during and on completion of training.

It would be wasteful and ineffective instruction if theory and practical teaching was presented without any attempt to see if the student was actually learning. Therefore, lesson analysis and tests should be applied to assess performance and measure the overall competence during and on completion of the training.

→ LESSON ANALYSIS:

Use the lesson analysis to ensure that your students are learning. The following are suggested methods which you can use to check that your instruction is effective:

During and after each lesson ask yourself the following questions:

- Are my students learning?
- Do my students understand?
- Are they performing the skill correctly?

→ HOW LESSONS ARE ANALYSED:

- This process is most effective in the teaching of practical skills (progress in learning simple skill is usually rapid).
- It can also be applied to complex skill, so long as they have been broken down into a logical series of simple and small steps (sub-skills) through the process of planned progressive instruction.
- Questions can also be used during lessons to check if the students are learning or not "programmed instruction" (if you are asking questions regularly, then the principle is being used).



- The Programmed instruction approach must be applied consistently to all practical lessons. It can also be used during theory training, but you may have to wait until the end of the lesson to do that. This depends on if you are prepared to have your students interrupt you to ask questions or clarification at any time during the lesson.
- Another way to know the level of students' knowledge is with a quiz or short test at the end of the theory lesson.
- Always plan your lessons to include opportunities to measure whether students are learning and achieving or not.

→ WHAT IF YOU HAVE A STUDENT WHO CANNOT ACHIEVE?

- Fortunately, it is extremely rare to find that nothing has been taught, more common are simple misunderstandings of technique, concept or knowledge, because the explanation was not clear enough or defective or because errors went uncorrected.
- But what will you do if you have a student who, no matter what you have done or tried, in your opinion, is not achieving as he should, hence is unsafe?
- Seek a second opinion to support your judgment. Ask another instructor to work with the student. May be a personality clash with your student is at the root of the problem.
- Whatever the reason may be, trying an alternative instructor may work and student achieves. But if the problem persists, at least you will have a second opinion to support your first judgment, and that will help you when discussing this with the student.
- You need to talk to the student privately and be diplomatic but honest.
- Asking the student why he/she thinks there is a problem, may give you the answer. Sometimes that can happen because they have challenged themselves to do a sport that they actually are not enjoying but will not admit defeat. However, with talking about their worries, they might confess that diving is not for them.
- If this does not happen then you must tell them that they are not going to be successful as a diver at this stage.

→ ASSESSING PERFORMANCE:

Assessing or checking the level of students' knowledge and performance can be done by two methods of evaluation: Continual assessment or Formal tests.

→ CONTINUAL ASSESSMENT:

- Continual assessment is an on-going process that allows you to assess your students. It is part of progressive instruction technique, especially when the instructor has to ensure that students perform these skills comfortably, safely and with confidence. Hence, the instructor has to decide if the student has achieved the standard required to receive the diving qualification.

→ THE PRINCIPLES OF CONTINUOUS ASSESSMENT:

- If the process of programmed teaching is followed and applied to every lesson, then each one will include some form of test and a student will be continually assessed during training.
- If the objective or skill of each lesson is achieved, the student progress to the next lesson.
- Students are often unaware that they are being assessed, so that they act normally while undertaking skills during the lesson, and that means you can make constant assessment whether the skills are effective.

- This method tends to lead to a more accurate reflection of abilities and attitude.
- Continual assessment works well for practical skill assessments, but less well for theory training, unless you make regular short tests following each classroom lesson. So this takes the burden off the students and put it on the instructor.

→ **ASSESSING STUDENTS DURING CLASSROOM TEACHING:**

This method is important to ensure that students have understood the subject. Successful classroom teaching involves checking throughout a lesson that the content is being understood. This can be done by using:

- Periodic asking of questions
- Periodic invitation to question
- Class involvement by doing
- Class involvement by discussion

Methods you choose will depend on the type of lesson and the level of students you are teaching. Good instructor will look for suitable opportunities to assess the success of a lesson.

→ **FORMAL TESTS:**

- This type of tests is specific, focused and undertaken at a planned time.
- This type tends to create an unrealistic situation by increasing stress in students, especially when practical skills are being tested.
- Instructors teach students what they need to know, not how to pass tests, tests present no difficulty to students who are correctly trained.
- Formal tests are still used for theory knowledge, while assessing practical skills is generally carried out by continual assessment.
- The assessments by examination or tests check how well information have been retained by our students.
- It is up to the instructor to choose which method to use. A combination of methods can be used.

→ **USING THEORY TESTS:**

- At the end of a series of classroom sessions, a theory test is given to students, to assess a students' knowledge of essential theory before diving qualifications are awarded.
- In this test, it is important to check key information; what students need to know to dive safely, and to look after themselves and their buddies.
- Tests can be conducted by oral questions or by written examinations. They could consist of multiple choice questions, student answer sheets and an instructor marking sheet.

→ **DURATION, SPECIFICATION AND CONTENTS OF THEORY TESTS:**

- The wording of the questions and the speed at which they can be answered play a very important part in deciding how long a test takes. The duration should be based on the number of questions to be answered.
- You should prepare for an exam with as much attention to details and concern as a student will prepare for the exam.
- You have to be fully familiar with the requirements of the test and to be ready to assess various information and skills.



- Prepare for oral or written exams by having banks of questions available. This can be in the form of questions and answers suitable for written or oral tests which can save a great deal of time and effort.
- Prepare your lists of questions and answers at the same time, to ensure that your answers are drawn from the same source as the questions.
- Theory tests can only ask questions on the same area of knowledge.
- Questions are based on the material taught, and not what the instructor thinks may have been taught.
- They can be taken from the appropriate textbooks which are required reading for the student during training.
- Plan to ask at least three questions within each important subject area.
- Make sure that the number of questions and the degree of difficulty are balanced between the different subject areas.
- The theory test questions should be carefully prepared to determine a student's appreciation of safety and good diving practice.
- Questions should check whether the student has learnt, acquired facts and information as a result of training and knows how to apply the essential information.
- It is better to assess factual and practical knowledge and avoid questions where the answer is a matter of opinion. Maybe students they are unlikely to have enough knowledge to develop and express opinions on subjects.
- When the theory test is for advanced students, wider knowledge should be expected. Hence, a test can include some non-essential knowledge and can ask comments and opinion.
- Questions which seek opinions are the most difficult to evaluate, but these normally only occur when higher qualifications are being assessed.
- For advanced examinations, the ideal questions may ask the student to bring two or three principles together and then apply them to a problem.
- The advanced theory test might be the only way to find out if the student can still remember and apply knowledge learnt during basic lessons.
- It is important that questions and theory tests are developed and conducted with care, this will ensure a uniform standard and reduces ambiguities in questions.
- Questions wording should be correct and clear to avoid ambiguity. Each question should have only one right answer.
- It is recommended that you ask another member of your team to check the list of questions and answers to avoid ambiguity and misunderstanding.

→ **EXAMPLE QUESTIONS:**

- What could be your action as a dive master if a scuba diver has made an emergency ascent? (The word could have been used instead of should).
- Draw the symbol that would be used on an admiralty chart for the following features. (It is reasonable for divers to understand charts, but not to be able to draw them. You have to ask about symbols to be identified not to be drawn to ascertain knowledge on the subject).

→ CONDUCTING THEORY TESTS:

- Students should only attempt a test when the instructor considers them ready. Some students may be eager and ready to take a test as soon as they have completed theory training. Hence, unnecessary delay can diminish their interest and motivation.
- Some students may require some encouragement to take the test, and may benefit from having practical session before taking a test. However, failure to pass a test for which a student is unprepared will be a blow to their motivation.
- Always give a date, time and venue for a theory test well in advance, this allows time for students to final study and prepare (review their student notes, ask for any further clarification and revise well in advance).
- Choose a venue with sufficient light, table space and chairs.
- Check that students have the materials they need for the test, i.e. pens, calculators, decompression tables, etc.
- Try to put the students at ease as much as it possible.
- Tell them to read the questions carefully and mark the answer sheets as appropriate when using multiple-choice questions.
- Advise them that if they do not understand a question, they can approach you quietly.
- Give out the test papers face down and when all are ready, start all the candidates at the same time.
- Test papers have a time limit so it is a good idea to let students know when they have reached halfway and when there is around 5 minutes remaining.
- If a student finishes the paper, tell them to leave the room quietly so as not to disturb those remaining.
- When English is not the students first language, again the candidate may be allowed extra time again ensuring an understanding of the questions asked if necessary.

→ THEORY TESTS AND STUDENTS WITH SPECIAL NEEDS:

- You should find out before the test whether any students have a special need, for example, a slow reader, someone who is dyslexic or visually impaired. It might be better to give them the option of taking an oral test or extra time may be allowed.
- Students who might have difficulty with reading and writing can be missed during classroom lessons, because some people are very shy of mentioning their problems. This doesn't make them lesser divers, still they may feel that they cannot complete or be successful as a diver.
- It is important for you to get to know your students during diver training because this is a key to be able to help them and motivate them.
- Make sure your students feel comfortable enough to discuss with you any special needs, especially problems that can be effectively solved. An instructor can make some allowances, depending on the issue. For example:
 - A theory test may be conducted orally rather than a written paper.
 - Extra time may be allowed on the written test.
 - Reading the questions to the students.



→ WRITTEN OR ORAL:

You need to decide whether the theory test will be written or oral, this decision will have a bearing on the way the questions are worded or posed.

Written examinations can use a greater variety of questioning techniques (multiple choice, matching questions, correct or false, and essays).

Oral tests will involve fairly short questions, and expect equally brief answers. Oral questions can be given to supplement a written test, or to clarify written answers where it is thought that the question may have been misunderstood.

→ REQUIREMENTS, ADVANTAGES AND DISADVANTAGES OF EACH TYPE OF TEST:

→ THE REQUIREMENTY FOR WRITTEN THEORY TESTS:

- Choose a venue with sufficient light, table space and chairs, and reduce outside distractions to a minimum.
- Check that everyone has the materials required, pens, paper, calculators and decompression tables.
- Give them any special instructions.
- Distribute the examination papers, usually face-down, start all the students at the same time and let them know the time limit for the test.
- Let the students know they have reached the half-way stage and also when there is only 5 minutes remaining.
- Stop everyone writing at the same time and collect up all the papers before the students disperse.

→ THE ADVANTAGES:

- A large number of students can take the test at the same time.
- All students answer the same questions, so the standard is uniform and fair.

→ THE DISADVANTAGES:

- Students may suffer from exam nerves or have difficulty in compiling written answers.
- Doesn't permit supplementary questioning to clarify answers, hence the wording of questions must be clear and unambiguous.

→ THE REQUIREMENTS OF THE ORAL ASSESSMENT:

- This needs to be done on a one to one basis.
- Requires the presence of an experienced instructor to conduct the exam.
- Choose a quiet, comfortable venue, and put the student at ease.
- Give the ground rules at the start, for example that you will only accept their first answer and will not discuss answers until the end of the test.
- If you need to make notes, try not to distract the student by doing so.
- Ensure everyone has the materials required, pens, paper, calculators and decompression tables.
- Ask questions clearly and repeat them if necessary.
- Be careful when giving answer options (your emphasis on each one so you do not inadvertently hint at the correct answer).
- To maintain a uniform standard, the student should answer the same questions as the written paper but question can be rephrased if the student doesn't understand them.

→ THE ADVANTAGES:

- Ideal for a single student.
- An oral test can often be more relaxed and informal, hence, the examiner can put the student at ease.
- It is possible to give an immediate result at the end of the test.

→ THE DISADVANTAGES:

- Unsuitable to examine a large number of students.
- It takes a long time especially for a number of students.
- One student may pass on the gist of questions to another student. So a good selection of questions is necessary.
- Not very suitable with opinion answers, this can be done better as a written essay answer.

→ CONTENTS OF PRACTICAL TESTS:

- Practical tests should examine the student on all the skills they need to know for the particular level of diving qualification.
- The simplest way to conduct practical tests is by asking the student to perform an essential skill in a natural or logical sequence (in the sequence agreed).
- On shore, for no more than ten minutes, you can ask some simple questions to make the student relax.
- In the case of tests relating to diving proficiency, it is a good idea to conduct them as dives (in confined or open water) during which skills and techniques should be demonstrated.
- You need to ensure that the conditions for the examination are safe and do not hinder the performance of a candidate
- You have to watch carefully for signs of nervousness and check air consumption regularly during the dive.
- The examining instructor should occupy the best point to observe the test, the poolside for surface activities and underwater with the students to observe scuba skills.
- The same applies to open water tests; on the surface or underwater, whichever gives you the best viewpoint to assess performance.
- The examiner should also consider the value of various parts of a performance, some skills are more valuable than others in terms of safety.
- Judge the overall performance, not specific aspects of the test.
- When you tell students of any weakness, the motivation they will receive will ensure to overcome their faults and they can do this through practice and experience.

→ CHECKING THE RESULTS:

- Results of theory tests should be measured against the standards established for the test and the diving qualification standards.
- The pass mark should be agreed in advance. A minimum pass mark above 60% is required on the oral and written examinations.



- Once answers are checked, compare the student's score against the pass mark required.
- When assessing results, clear passes or failures are easily identified, but borderline cases or those who are nearly a pass may need analysis and reviewing carefully.
- Borderline students may need more time or could be slow readers or writers or dyslexic.
- Checking with the students or giving a couple of supplementary oral questions may clarify that they do know the answer.
- Failing tests can demotivate students but careful discussion and offering any further theory session before retaking the test will demonstrate that you want to help them succeed.
- With failures you need to determine, if the lack of knowledge is in across the board or in one particular area.
- There could be a number of reasons for failing a test such as missing out on some sessions, being extremely nervous, taking the test too early, or simply not understanding the theory behind the question.
- A high number of failures among students taking the same written paper could be an indication of poorly constructed questions, an ambiguous question or that students did not understand a particular session.
- Bad test results do not just reflect on student; they can also indicate poor instruction.
- Where questions invite opinion or are of essay type, you should take extra care to mark them objectively, rather than allowing your own opinion to override your judgment.

→ ANNOUNCING AND GIVING RESULTS:

- Students will be anxious to know how they got on with the test, so try to give the results as quickly as possible as, long delays suggest bad news and this can affect your students' motivation.
- If there are failures within a group of students it is better to tell everyone their result individually, if all have passed then you can inform them as a group.
- When communicating the result of an assessment the examiner should be fair, honest and sensitive to a student's feelings.
- Students who have failed should be notified beforehand and in private so that they can receive more guidance for study and assistance.
- You should provide an opportunity to retake the test and give additional training to help them to pass next time.

→ INSTRUCTORS ATTITUDE DURING THE ASSESSMENT PROCESS:

- Ensure that your knowledge and skills are constantly updated.
- Assess candidates honestly and objectively using available assessment criteria.
- Respect the work of fellow examiners and the effort made by candidates in preparing for examinations.
- Respect the standards and rules and regulations adopted.
- Ensure that conditions for the examination are safe and do not hinder the performance of a candidate.

SUMMARY OF KEY POINTS

➡ SUMMARIZE THE KEY POINTS OF THE CHAPTER 4 ?

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CHAPTER 5

DEVELOPING YOUR SKILLS



After all the knowledge and skills which you successfully acquired to become an instructor, now you can utilize your skills in the best possible way, by either volunteering or working as a professional diving instructor.

- Volunteer instructors say that "they wanted to give something back to the organization that trained them" and this reason is the strength of the volunteer diving organizations.
- Instructors working professionally might be staff member of a dive school or freelancers associated with diving organizations.

Whether a volunteer or a professional, a beginner or more advanced, your knowledge and skills as a diving instructor will ensure maintaining specific diver training standards.

To develop your skills, you have to work continuously on practical skills and theoretical knowledge. Also you have to stay updated about all advancements and development in different aspects of sport diving.

SETTING THE STANDARDS:

THE STANDARD OF AN INSTRUCTOR'S PERSONAL SKILL IS IMPORTANT FOR A NUMBER OF REASONS:

- **UNLESS THE INSTRUCTOR CAN PERFORM A SKILL HIMSELF HE/SHE WILL NOT BE ABLE TO TEACH IT EFFICIENTLY.**
- **THE STANDARD TO WHICH THE INSTRUCTOR PERFORMS A SKILL WILL SET THE GOAL TO WHICH THE STUDENTS WILL ASPIRE.**
- **SETTING THE HIGHEST STANDARD POSSIBLE WILL ENSURE THAT THE STUDENTS ALSO ARRIVE TO ACHIEVE A HIGH STANDARD. IT IS UNLIKELY THAT STUDENTS WILL ASPIRE TO A HIGHER STANDARD THAN THAT SET BY THEIR INSTRUCTOR.**
- **SETTING A LOW STANDARD MEANS THAT THE STUDENTS WILL ALSO ACHIEVED A LOW STANDARD WITH AT LEAST A NEGATIVE EFFECT TO THEIR TRAINING PROGRESS AND POSSIBLE PREJUDICE TO THEIR DIVING SAFETY.**



▶ PRACTICE YOUR PERSONAL SKILLS:

The more basic diving skills are those which are used on every dive and those that the instructor will most commonly be required to teach. Maintaining currency for these skills is not usually a problem, unless for some reason the instructor has had a lay-off from diving. This could be due to illness or just the lower frequency of diving usually experienced during certain seasons. If this occurs, then it is in the instructor's interest to do some refresher practice before instructing any students. Failure to do so could result in embarrassment in front of the students and an inevitable loss of credibility.

If an instructor's performance is such that it is clear to the students that the instructor is having some difficulty with the skill, then they will naturally assume that it will be even more difficult for them. A negative expectation will thus have been set which can only be detrimental to the students' own performance.

Sometimes, some skills are not often used, such as search and recovery, lifting techniques or the use of particular types of navigational equipment, in these cases it is essential that in preparing for the lesson the instructor has to carry out recent practice of the skills required. Trying to teach a skill which the instructor has not recently performed is one of the most common causes of poor instructional performance. So, ensuring a good standard of personal skills will therefore benefit the instructor from both a diving and instructional viewpoint.





- ANY SKILL THAT IS NOT FREQUENTLY EXERCISED WILL INEVITABLY DETERIORATE, THIS IS TRUE FOR BOTH THE INSTRUCTORS' PERSONAL SKILLS AND ALSO THEIR INSTRUCTIONAL SKILLS.
- IF YOU HAVE NOT PRACTICE CERTAIN SKILLS FOR SOME TIME (NO MATTER HOW EXPERIENCED YOU ARE AS AN INSTRUCTOR) YOU MUST RUN YOUR OWN PRACTICE SESSION TO ENSURE YOUR DEMONSTRATIONS ARE GOOD, CLEAR AND UP TO STANDARD

▶ **THE CONFIDENCE FACTOR:**

- Maintaining a high standard of personal skills will enable an instructor to approach a lesson with confidence and to concentrate on teaching the skill concerned. This will result in higher quality instruction and high level of student motivation and performance. Not only will the students derive more enjoyment from their training, but also this in turn will result in more enjoyment and satisfaction for the instructor.



- THE MORE CONFIDENT YOU ARE, THE MORE EFFECTIVE YOUR TEACHING WILL BECOME.

➔ **PRACTICE YOUR INSTRUCTIONAL SKILLS:**

- Just like any other skill, an instructor's current teaching skills deteriorate if not exercised. This instructional refresher practice will be more effective if carried out in conjunction with another instructor. This will not only allow the constructive criticism, but will enable feedback on such aspects as the instructor's positioning relative to the students. Being able to perform a skill to a high standard is not enough in the instructional context if the students' position prevents them from seeing the critical aspects.

➔ **KEEPING UP TO DATE:**

- Diving is constantly changing because of the development of new equipment, techniques and increasing general knowledge of the effects of the diving environment on the human body. So as an instructor you have to be keep up-to-date with such changes, and be fully conversant with and capable of performing any new techniques. This involves at least practicing the new techniques to ensure that they can be performed to a high standard or their effectiveness will steadily decline to the detriment of their students.
- Depending upon the complexity of the actual techniques concerned this may require attendance of a skill development course which will automatically provide the necessary practical instruction.

➔ **THEORETICAL KNOWLEDGE AND PRACTICAL SKILLS:**

- Using older versions of diver training material and instructing materials, means that your theory is not up-to-date and any important changes will have been missed. That may could lead to confusion for the students if your information varies from what they have heard, seen or read from their student materials, this could easily result in a loss of your credibility. Therefore, it is essential to use the most updated training material.



- You must read around the subjects you are teaching as much as possible to broaden your knowledge base. There is no substitute for a broad base of knowledge and experience.
- Reading diving magazines, specialist books and use of the information available on the Internet from different diving organisations' web sites, can be very informative and will certainly help you keep up with new developments to support your understanding on different topics.
- For example, diving physics and human biology can be difficult to grasp or long forgotten since school days, but during teaching process, you and your students can go back to basics by looking at children's books on a particular subject. Sometimes these books give simple explanations accompanied by clear diagrams that can be adapted and to diving theory. It is not important to get the right book but to get the right information.
- As a result of improvements in our understanding of the diving environment and of the development in diving equipment, you will find that your skills and technique are developing continuously.
- Diving magazines and organisations normally cover many advances in diving aspects either in publications or on web sites. Therefore, you can update your own skills with adequate practice.
- Also diving organisations develop specific courses to provide a safe and effective means of disseminating the skills. These courses not only enable you to develop your skills but also to help you in the instructional technique.



- **IF YOU ARE UNSURE ABOUT WHAT YOU ARE DEMONSTRATING OR TEACHING, YOU WILL NOT BE TO DELIVER QUALITY TRAINING TO YOUR STUDENTS, YOU WILL INTRODUCE BAD HABITS IN TRAINING AND DIVING FOR THE INEXPERIENCED STUDENT, AND IF TEACHING MORE EXPERIENCED STUDENTS YOUR CREDIBILITY WILL BE CERTAINLY AFFECTED.**

➔ **EVALUATING YOUR TEACHING:**

- Often, you need to evaluate your teaching activities and to get feedback from others about it.
- Evaluating the lessons that you have given is not only important in assessing whether the lessons' objectives were met, but it is also important in determining areas and topics that you need to improve on.
- By monitoring how your students have assimilated the knowledge or skills, you can gain some indications of your performance.
- If all students have some difficulties, then the question to be asked is whether it is a problem with the students or with you? Hence, you need to review the session to decide if the information or the demonstration needed to be broken down more, particularly with practical skills.



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