Effective Learning

This is a copy of the research paper I produced for my level 5 coach training in October 1995. Some of it is a bit wordy, but I think this is of real use to the coach.

To be an effective coach of any sport it is important to realise how the student can best learn from the tutor; it will help to identify what their preferred learning style is. There is little point being with a group of students on the water if they are not learning effectively. Instructors should organise themselves and their environment in order to maximise their students learning.

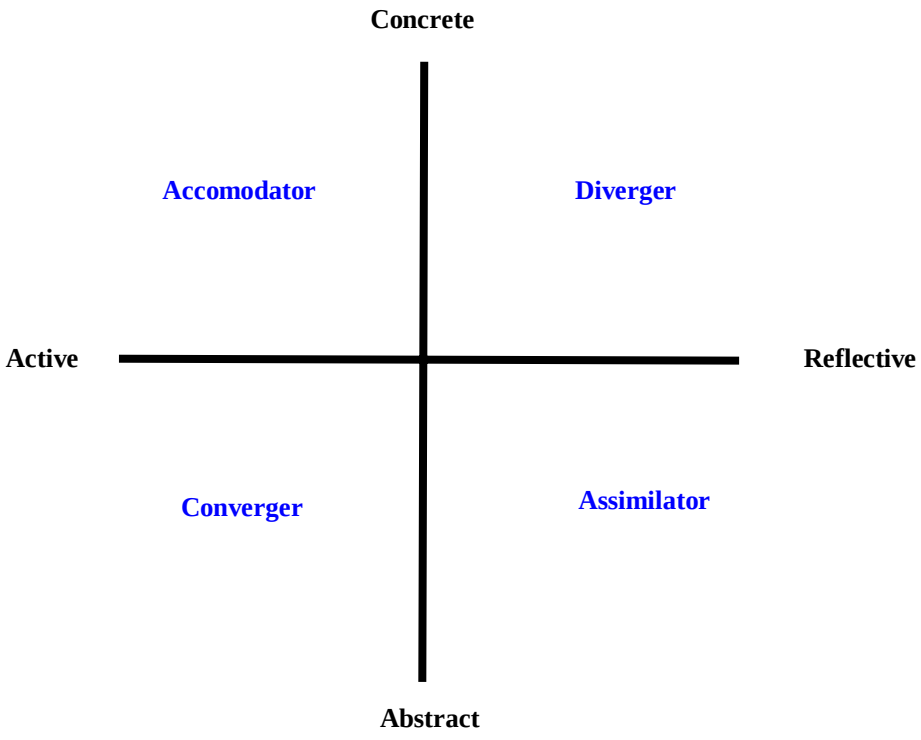
Many theories have been developed to guide teachers towards a better understanding of effective learning. One thing is sure; all students are individuals and as such learn in different ways. "If the tasks and activities in which the learner is engaged are not matched to the learners existing capabilities, then learning difficulties are likely to occur" (Ainscow 1988).
If the students have not grasped particular learning styles they will not learn effectively.

It has been suggested, for example by Kolb (1984), that learning can be split into four orientations.

1. Concrete Experience (CE) - this is about learning by doing, by feeling not thinking. Students who respond to this approach can be intuitive thinkers and good decision makers. They relate well to others and are open minded.
2. Reflective Observation (RO) - students prefer to think rather than do. They use observation and carefully describe them as impartially as possible.
3. Abstract conceptualisation (AC) - focuses on using logic, ideas and concepts. Thinking not feeling, building general theories and finding a scientific approach to problems.
4. Active Experimentation (AE) - practical not reflective, understanding, concerned with what works not what should.

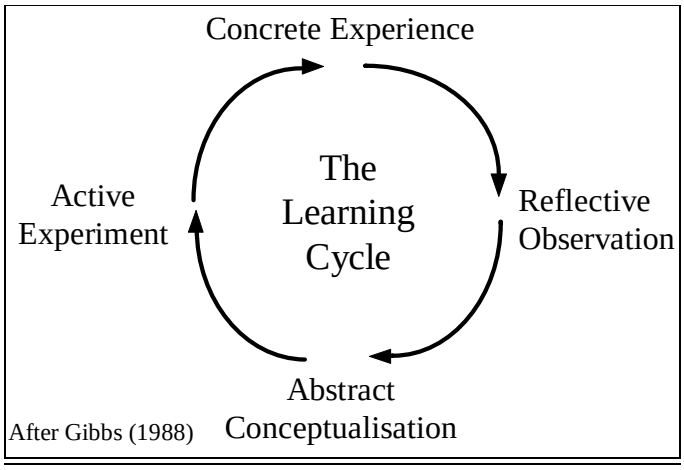
Kolb further describes another four categories of learning style which are combinations of the above. These four types are:

- {Assimilation - students who enjoy theoretical sessions, like to build models, would want to understand principles and generally work in a logical manner.
- {Divergence - students like to reflect, watch and listen. They solve problems creatively, think things through and generally work in an imaginative manner.
- {Accommodation - students get involved, enjoy new experiences, learn by trial and error and are generally enthusiastic.
- {Convergence - students want to try things out, find out if they work and are generally practical.



If the lines of the diagram above (From Bloomer and Scott 1988) are taken to be an axis, it is possible to plot the results of tests that give an idea of the students preferred learning style. In practice students can not be slotted into one of these boxes. Most will have some features of each approach. The majority of students are accomodators, but in every group there will be a few of each. "A child learns very little indeed when experiments are performed for him ..... he must do them himself rather than sit and watch them done" (Piaget 1966). Piaget emphasises the point that most people are accommodators and learn by doing. However in any group of people there will always be people with different preferred styles of learning.

Students are individuals and have different preferred learning styles. For students to learn efficiently they need to learn in their preferred style. It is therefore important for instructors to vary their coaching style, not only from session to session but also within sessions. The four preferred learning styles mentioned at the start can be used in a cycle as shown below.



What has all of this to do with coaching canoeing?

We all have a style which we find easiest to learn from. If this can be identified in those being coached the time spent with them can be maximised. The majority of the time instructors will be working with a group of people who will all have different preferred fig.2 learning styles. Effective coaching should work through all the preferred learning styles in order to give everyone a chance of learning in their preferred style.

Sessions can start anywhere on the cycle, but for efficient learning to take place students should be encouraged to work round the full circle. From first hand experience it has been found best to start from the top of the cycle. For example an introductory kayaking session:

{Initially students are very usually very excited or apprehensive. A long description at this stage would put them off, it is far better to give them a quick introductory talk and get them on the water e.g. "we're all going to paddle over there" on the way most of them will spin round in circle on the way over, but they now have a 'concrete' kayaking experience to build on.

{On reaching the designated point students can be asked to comment on what they found easy or difficult. A lot will say that they can't keep the kayak straight. This is a 'reflective observation'.

{Now the students will be more receptive to anything the instructor has to say about going straight. For example "don't worry these kayaks are designed to turn" "try to keep your paddle close to the kayak when you want to go in a straight line" etc. This is 'abstract conceptualisation'

{From the instructors little group discussion in the above point, the students would be set a little task involving paddling straight and some controlled turns. This 'active experimentation' will give the students chance to play with the ideas they have been given and give them an experience to move on with.

In the example shown above the cycle has been completed on the one activity and now starts again as the group move on to something new, the draw stroke.

vExperience - ask the students to find as many ways of moving sideways as possible, anything goes. With young groups it is possible to see people jumping out and swimming with their boats. This has given the students experience of moving sideways, they now know that they can move sideways in some form or other.

vReflection - ask the group if they found one method a lot more efficient than the others. Would this method be suitable for using when wanting to go sideways. The students are being asked to review what worked and what did not work.

vConceptualisation - having given the students a chance to gain some experience and a chance to review how they felt it worked, the time has come for the instructor to give them a bit more input. e.g. "What most people find as an effective sideways stroke is this..."

vExperimentation - from the demonstration given summarise this into key points that students can work on. As they experiment with these points (where do I need to keep the paddle to stop me swinging? for example) so they are gaining another experience that will allow the cycle to begin again.

This is just one example of part of a session. Sessions need not go round the cycle just once and need not complete the cycle in one session (if the topic is on going).

As canoeists approach their first "Trainee Instructors" course they will be made aware of the '**IDEAS**' model for teaching.

Introduction

Demonstration - reflective observation. Students are passively observing.

Explanation - abstract conceptualisation. The students are making their own imagery to fit the explanation.

Activity - active experimentation. Having observed and listened pupils finally get to experiment with the stroke.

Summary - usually a verbal summary.

IDEAS is very limiting and does not allow for all learning styles to be used. By choosing to start the cycle at the reflective stage students will be less receptive. They want to get on and do rather than listen or watch. Once they have tried it out they will realise how easy or difficult it is and be willing to listen. The activity stages have been minimised and learning will be effected, although instructors will feel that they are imparting a lot of knowledge.
IDEAS makes no attempt at a cycle of learning, the experimental stage is not used as an experience for the next stage. IDEAS should perhaps be made into ERNIE:

***E**xperience - "everyone try paddling backwards"*

***R**eflection - "did you find it easier or harder than paddling forward?"*

***N**arrative - "this is the most efficient way to paddle backwards"*

***I**dentify - "these are the key points I would like you to try....."*

***E**xperiment - try it*

With Ernie the cycle is followed, activity is at a maximum and learning should be more efficient.

Following the learning cycle has two main advantages. Firstly the obvious fact that students will have a chance to learn efficiently because at some point during the session their preferred learning style will be utilised. Secondly by continually using the cycle to run sessions, students

will be encouraged to develop other learning styles. Students who gain the ability to use differing learning styles in varying situations will learn a lot more efficiently.

A balanced and varied approach to coaching is the best.

Like all theories and ideas this will need to be adapted to you. You may find that it does not suit all situations at first. So play with it!

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