

Teaching Fly Casting:

Interim Research Report

by

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As published on **TheCuriousFlyCaster.com**

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Interim Research Report

Introduction

I have spent a lot of time trying to get fly casting teachers to talk about their work – not about **what** they teach but rather **how** they teach. With some notable exceptions, it turned out to be a difficult row to hoe. Accordingly, I decided to redirect my energies to researching teaching/coaching in other sports, particularly those with the numbers, the organisational structures and most importantly the money to push the envelope, to look outside the box of traditional practices and get some serious *sports science* done.

I do this with the firm conviction that people are people, teaching is teaching, and movement is movement. This is largely the opposite of the view that fly fishing and fly casting are exceptional and have a single, unique box all their own so we can justifiably categorise other sports and their boxes as distinct and therefore mostly irrelevant. The teaching box is labelled “*fly casting instruction*” and the core (not the sole) idea of teaching is to get students to learn, by reproduction, the correct technique which is achieved by getting students to move in prescribed ways and by correcting their “*faults*”. Movement is broken down into what different body parts should be doing at particular stages of a fly cast. Casts are performed, as it were, by arms rather than bodies, much less by individual people.

In what follows I will set out some of the key points I have collected to date. A lot of them will present a very different model, perspective and approach to teaching fly casting than has prevailed for a very long time. This is not to say that all contemporary fly casting teaching is ill considered, defective and unproductive. That would ignore the evidence that a lot of students have been given a lot of help by their teachers in improving their casting. It would also fall into the (same) trap of thinking that we obtain perfection by eliminating faults. My intention is not to trash traditional methods entirely but rather to suggest that by embracing new ideas, old ways can be improved.

Finally, henceforward I will use the term “*teaching*” instead of instructing and to embrace coaching as well.

Key Points

Authority and Responsibility

When people take on certain roles, such as teacher and student, there is usually a shared assumption that within the context of that working relationship, power will not be equally distributed. One is an authority figure and the other is not. With authority comes responsibility. You can't, reasonably, have one without the other.

Pedagogy

The teacher is responsible for their depth of knowledge about the relevant subject matter and they are also responsible for knowing and understanding the person they are teaching and their preferred ways of learning – so far as that is possible. Without a happy combination of deep subject knowledge and empathetic attunement to the student, the learning experience will suffer.

Brief History of Sports Teaching

Tennis was my first port of call for looking at the teaching of other sports. In my childhood tennis was a big deal and tennis players were national heroes. Australia was a force if not the force in the game internationally. As I recently discovered, tennis coaching was largely a post WWII phenomenon. It was therefore not surprising that much of the teaching by prominent coaches such as Harry Hopman¹ was essentially a series of practice drills followed by game play.

The ex-mil teaching style was not confined to tennis. Repetitive drills to teach technique are still very much part of standard fly casting “*instruction*”. This is not to say that repetition is useless in learning movement skills but simply to point out that the imports from military training were both understandable and common place.

As we will see, fast forward fifty or more years and ex-mil drills have long since ceased to be only way of getting things done, skills learned, skills retained and skills refined. This applies both to technique and to game skills such as decision making.

¹ https://en.wikipedia.org/wiki/Harry_Hopman

The Spectrum

The Spectrum is the product of Mosston and Ashworth, Teaching Physical Education (2008)². It is a somewhat complicated analysis of teaching and teaching styles. The complexity, however, should neither surprise nor intimidate us. Rather, it opens up many creative possibilities. It is founded on the notion that instead of competing ideas about teaching we should embrace the variety of styles and adopt a non versus approach in considering and utilising them.

Equally important, in my view, is that it sought and now provides a conceptual framework and terminological tool set for both research/analysis and the practice of teaching movement. So equipped we can think more clearly and more productively about the pedagogy of teaching movement.

It defines teaching as a series of decisions – before a lesson (pre-impact) during one (impact) and after one (post impact).

It organises teaching styles into two clusters – **reproduction** (student learns/reproduces what teacher says) and **production** (student learns/produces with teacher facilitation). Moving from one and closer to the other involves crossing a student discovery threshold, the line between compliance and insight would be my rendering. Rote learning versus self paced learning would be another relevant characterisation.

As noted above my take is that the teacher student relationship is fundamentally about people and power in the context of teaching and learning. If we adopt teaching as a series of decisions then it necessarily implies that learning is also a series of decisions. The question then becomes how the decision making power, authority and responsibility, are distributed between teacher and student at different times and overall.

At one end of the Spectrum we have Command Style A – instructor issuing instructions and supervising drills. At the other end we have entirely self taught learning Style K. This arrangement is not simply linear. It is a whole with parts or sectors, a bit like a pie chart of colours. The Spectrum is not about what is good or bad teaching in this or that context. It's a tool kit useful for a wide variety of teaching contexts and student preferences. Sometimes we need a hammer and sometimes we need a delicate paint brush. Fly casting teachers who spend most of their time with beginners will probably be teaching in the

² https://spectrumofteachingstyles.org/assets/files/book/Teaching_Physical_Edu_1st_Online.pdf

reproduction cluster and might benefit from considering the range of Styles in that cluster – i.e. Styles A-E. They can be found in *Teaching Physical Education linked to in note 2 above* and see p.11 for the authors recommendations.

Revisiting the history of fly casting, “instruction” is, in this broader context, quite similar to other sports. Teachers teach what they learned and how they learned it.

They **reproduce** because they were taught to **reproduce** and they do so largely without self awareness or awareness of best practice advances in other contexts. Tennis, for example, like other sports imported drills. Repetition is the key feature of drills.

Instruction, then, is about knowing and prescribing what should be repeated. Now we all know that repetition is handy for skill development and *sensory motor learning*³ . We also know that isn’t the beginning, middle and end of teaching or learning, much less learning about and by teaching.

Focus, Feels and Images

For a variety of motor skill learning tasks teachers may ask students to focus on how they move parts of their bodies. We might, for example, tell students how to move their arms, forearms and hands in specified ways and sequences. This is known as an *internal focus* – on body movements.

Alternatively we can ask the student to focus on the effects of their movements – to concentrate on the shaft or head of a golf club, the butt, tip or mid section of a fly rod or the size of their loops. All these are examples of an *external focus*.

Research over several decades and involving a variety of motor skill tasks has shown that employing an *external focus* increases the rate of skill acquisition and the quality of retention of those skills. Gabriele Wulf^{4,5} has been a prominent researcher in this field.

When we make an unusually sweet delivery cast, tennis serve or golf shot we register that something special just happened. We also want to capture and hold that moment in our memory so we can enjoy and repeat the experience. What we register and want to repeat is that special feeling of everything coming together, just right.

3 <https://thecuriousflycaster.com/fly-casting-and-sensory-motor-learning/>

4 <https://gwulf.faculty.unlv.edu>

5 <https://pubmed.ncbi.nlm.nih.gov/20078758/>

With the right “feel” fresh in our minds, we can help preserve that by associating it with an evocative image and giving that image a name. It’s important that each person uses their own language of image and name. The feel, image and label are thus individualised and personalised. The association with a movement is rightly and uniquely theirs and theirs alone.

In my own casting the application of what science told me about mechanical efficiency and biomechanical efficiency led me to explore and experience the feel of efficient casting. I gave those movements a name by summarising them in an associated image. I’ve used a similar process in teaching and it seems to work but I don’t have enough students to provide convincing evidence of its value and universal effectiveness. My expectation is that it will work well for a lot of people and not at all for some people who will find the whole idea a bit strange.

Then I got into an email conversation with a friend, Phil Blackmar⁶, who has played and taught golf at an elite professional level. He took all this to the next level. *What if, as he suggests, we make the feel of getting it right (and importantly also the feel of not getting it right) the centrepiece of our teaching? What if, in asking a student to record, recall and focus on that feel we could get them to discover, for themselves, the difference between sound technique and poor technique (rubbish)?*

Light bulb moment for me. The feel, self discovered, experienced and named, becomes the external focus, cue and guide to performing the whole movement of a forward cast and back cast. Assuming some fundamental competence has been achieved, the student can recall and strive to repeat and grove what is for them sound technique. Gone is one size fits all. Gone too is dis-integrated movement and fault correction – none of the latter unless and until it is requested or revisiting fundamentals becomes unavoidable.

*Sensory motor learning*⁷ of casting movements involves taking those movements from the cognitive and conscious channel of control and turning as much of them as possible into unconscious movement. That is the job of repetition and purposeful practice – to move control from the slow lane to the fast lane. I would presume to suggest that this is exactly the benefit that external focus enhances – hence superior results in learning and retaining a motor skill.

6 https://en.wikipedia.org/wiki/Phil_Blackmar

7 See note 3 to my blog on Fly Casting and Sensory Motor Learning

Eyes on the Prize

As my research continues, I have no plan for or fixed ideas about what it will deliver and what I will make of it. Teaching and pedagogy are not subjects amenable to glib reduction and summary much less rigid, ideological thinking. However, there are some simple and fundamental things that I can put forward now with a fair amount of confidence that I will not later have to retract them.

Teaching and learning are best pursued as a flexible, adaptive and creative collaboration between teacher and student(s). When that relationship works productively:

- The student learns how to do and how to learn to do
- The teacher learns how to (and how not to) facilitate student learning

Acknowledgements

I was fortunate to discover Mitchell Hewitt's Phd thesis "Teaching Styles of Australian Tennis Coaches: An exploration of practices and insights using Mosston and Ashworth's Spectrum of Teaching Styles" (2015). It provides an excellent account and explanation of its subject matter as well as an extensive list of references. It gave me a lot of good leads and saved a lot of time foraging for edible text. You can find it with the link below⁸.

I was also fortunate to have a friend, Mike Shaw, who has a distinguished background as a secondary teacher and school principal. Mike gave me very helpful navigational guidance on pedagogy and feedback on my research findings.

Lastly, I need to acknowledge the contribution of another friend, Phil Blackmar, who has played and taught golf at an elite professional level. More than that he is a deep and relentless thinker with a gift for distinguishing between signal and noise. He switched the lights on.



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⁸ <https://1library.net/document/dy4wo8rq-teaching-australian-exploration-practices-insights-ashworth-spectrum-teaching.html>