**Some Thoughts on Changing Practice – Vern Gambatta**

Changing practice can change the game only if practice is effective. Here are some of the keys to effective practice that I have found to work:

* Distort the game don’t try to replicate it in practice. If you want to play fast in the game, then you must practice faster than the game.
* Use distributed practice not massed practice. Massed practice will give the illusion of mastery but it does not stick. Break practice into smaller segments of repetition of key concepts.
* Forget perfect practice and focus on perfect effort. Making mistakes is ok as long the mistakes are used as lessons to learn. Coach the correction.
* Use the concept of interleaving – This relates to distributed practice. Use different but related concepts, get away from them and come back to them frequently.
* Use implicit learning. Think Mr. Miyage in Karate Kid Part One, he never taught Daniel karate, instead he painted word pictures of broad general movements and then put them together. Recognize that drills do not equal skill.
* Be a Twitter coach like John Wooden. Teach don’t preach make your corrections and instructions in 144 charters or less! Use the game to teach.
* Use “quizzes” to reinforce learning. Ask the athlete to show you or have them teach. They may not get it the first time but they will learn and it will stick. Tests or quizzes are tools to identify weak areas that need more work.
* Give them movement problems to solve before they are taught the solution. This leads to deeper learning than leading them through everything step by step, there will be more errors initially but learning will be deeper and lasting.
* When learning is harder it is long lasting, durable and more stable. Effortful learning changes the brain by building new connections.
* Feedback definitely strengthens retention, but immediate feedback can be a crutch, it is like training wheels when learning to ride a bike, eventually you need to take the training wheels away. Might be better to slightly delay the feedback and let the athlete figure it out.
* Lest we forget we are not programming robots we are coaching people! It’s a process and journey of constant discovery.

The following are sources that are indispensable to help make practice better:

**Make it Stick – The Science of Successful Learning** By Peter C. Brown, Henry L. Roediger II, and Mark A. Danile

**Wooden – A Coaches Life** by Seth Davis

**Mastery – The Keys to Success and Long-term Fulfillment** By George Leonard

**Motor Learning in Practice – A Constraints Led Approach** Edited by **Ian** Renshaw, Keith Davids, and Geert J.P. Savelsbergh

**Attention and Motor Skill Learning** By Gabriele Wulf

**Dynamics of Skill Acquisition – A Constraints-Led Approach** Edited by Keith Davids, Chris Button and Simon Bennett

**Nonlinear Pedagogy In Skill Acquisition – An Introduction Edited by** Jia Yi Chow, Keith Davids, Chris Button and Ian Renshaw

**You Haven’t Taught Until They Have Learned – John Wooden’s Teaching Principles and Practices** by Swen Nater and Ronald Gallimore