

Invited Rant

Meri Williams, ChromeRose, SPA2014, Tuesday 1st July, 2014 1:00pm – 1:30pm

Project Management

Assembled first computer from scrap parts aged 8, launched an experiment into space at age 15; all downhill from there! Ten years in corporate environment, but “is OK now”.

Soft Skills

People skills can be learned. www.despair.com gives some good examples!

Even highly rational people believe in the “soft skills fairy”. Science says “no” – the “you either have it or you don’t” theory is a myth.

Books: *Talent is Overrated*, *Outliers*

Researchers tried to identify factors that make people talented in music. Top violin school in the world was asked to divide pupils into future world-class soloists, future players in top orchestras, and future music teachers. Then trying to find predictors of talent came up with only 2:

- Being able to hum a tune at a very early age
- Over 7000 hours of practice by the time they arrived at the music school aged 18

This was totally counter to the intuitive expectation. Hours of intense experience counted for much more than any other factor.

In ice hockey, results were similar. Surprisingly, all top hockey players were born in the Jan-Mar timeframe. It turns out that when the players started out at 5 years old, the older children have significantly better co-ordination and therefore have early success leading to more practice.

Basketball is the exact counter-example.

Deliberate Practice

It isn't huge fun.

- You must be motivated to attend to the task and exert effort to improve your performance.
- The design of the task should take into account your pre-existing knowledge, so that the task can be correctly understood after a brief period of instruction.
- You should receive immediate informative feedback and knowledge of the results of your performance.
- You should repeatedly perform the same or similar tasks.

Models:

- Sports model – analogous to conditioning
- Chess model – learn from a master (compare own suggestions with solutions in a chess book)
- Music model – chunking, mental rehearsal

In software practice, we can learn from all of these. Run through a conversation in your head before it happens, for example. This prepares you for most of the things the other person might say.

Skill Development

Unconscious Incompetent → Conscious Incompetent → Conscious Competent → Unconscious Competent

Challenge: you become very poor at explaining why you are doing something very well. Asking someone to explain their technique automatically lowers their level of ability.

Computer geeks tend to be well behind the curve in developing people-related skills. But that doesn't mean it isn't worth trying to practise and improve them.

- Reject the belief that you either have it or you don't
- Use what you already know
- Construct ways of getting deliberate practice
 - Where you can practice
 - How you can evaluate how you are improving
- Find people you can learn from

Questions

How do you learn to be a good coach?

- You don't necessarily need to be a domain expert
- Run a code-club for 9-year-olds

When to apply the different learning models?

- All of them are useful in different ways. E.g. learning to read or type really fast was a helpful "conditioning" skill.
- Practising one skill at a time rather than all at once (think driving lessons)