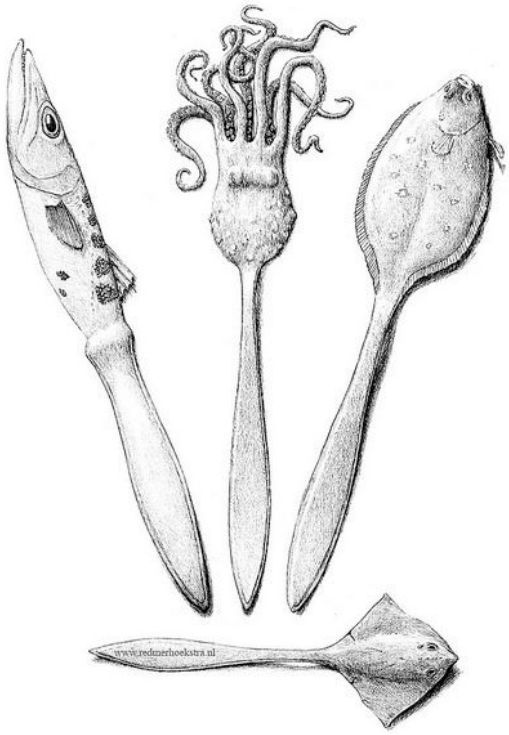
Muotoilijaksi oppiminen

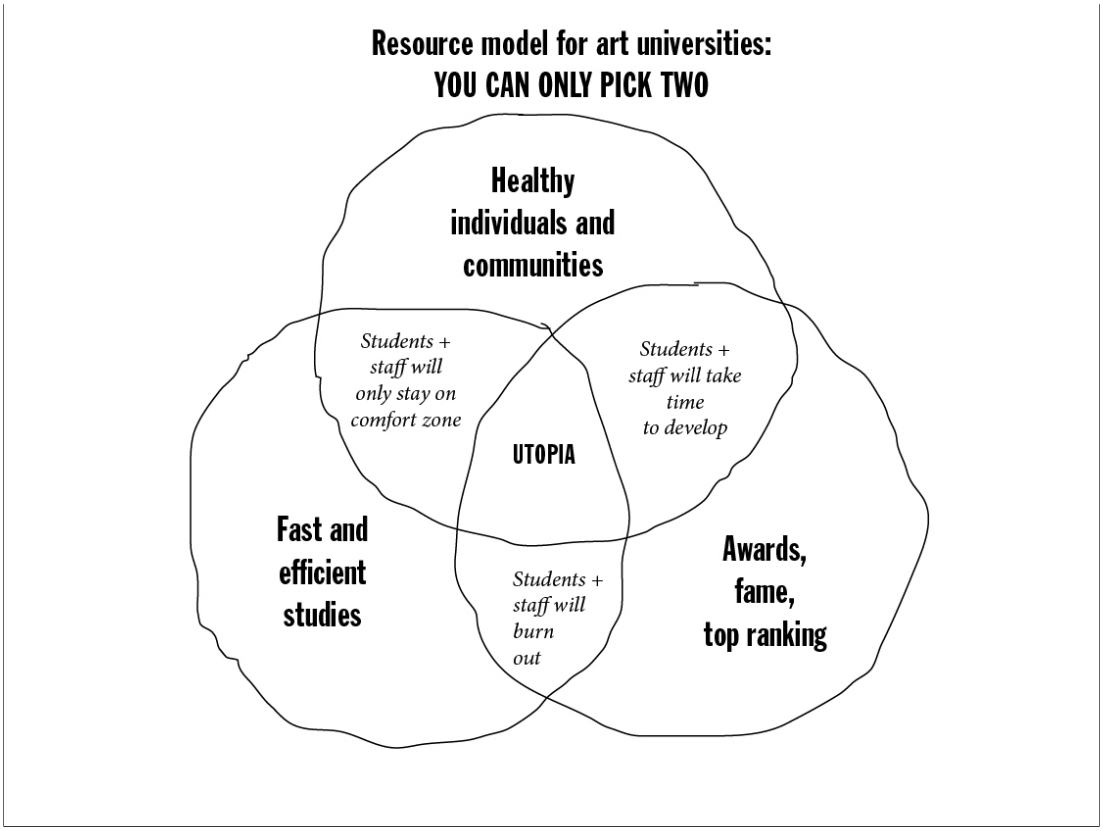


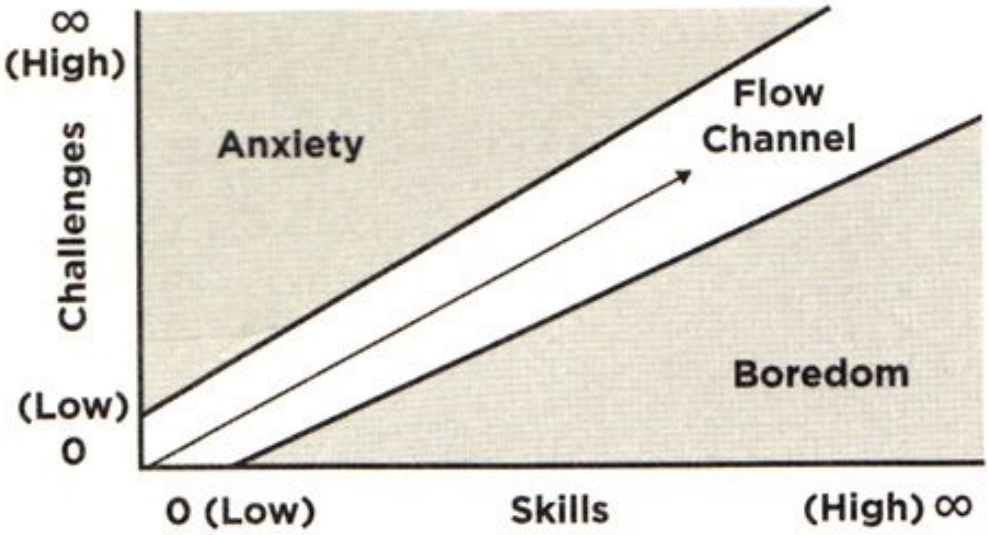
2021 | University Search | Region | Location

Subject: Art & Design | QS Stars rated

Rank	University	Overall Score	
1	Royal College of Art London,United Kingdom	99.6	
2	University of the Arts London London,United Kingdom	95	Get in touch
3	Rhode Island School of Design (RISD) Providence,United States	Sekä Parsons School of Design at The New School. New York City, US	
4	Massachusetts Institute of Technology (MIT) Cambridge,United States	85	
5	Politecnico di Milano Milan,Italy	84.1	Get in touch
6	Aalto University Espoo,Finland	82.9	
7	School of the Art Institute of Chicago Chicago,United States	82.8	

https://www.topuniversities.com/university-rankings/university-subject-rankings/2021/art-design





Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

CONTENTS

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

OSAAMISEN TASOT

GENERIC MODELS OF EXPERTISE

1. A **novice** will consider the objective features of a situation, as they are given by the experts, and will follow strict rules to deal with the problem.

2. For an **advanced beginner** the situational aspects are important, there is some sensitivity to exceptions to the 'hard' rules of the novice. Maxims are used for guidance through the problem situation.

3. A **competent** problem solver works in a radically different way. Elements in a situation are selected for special attention because of their relevance. A plan is developed to achieve the goals. This selection and choice can only be made on the basis of a much higher involvement in the problem situation than displayed by a novice or an advanced beginner. Problem solving at this level involves the seeking of opportunities. The process takes on a trial-and-error character, with some learning and reflection. A problem solver that goes on to be proficient immediately sees the most important issues and appropriate plan, and then reasons out what to do.

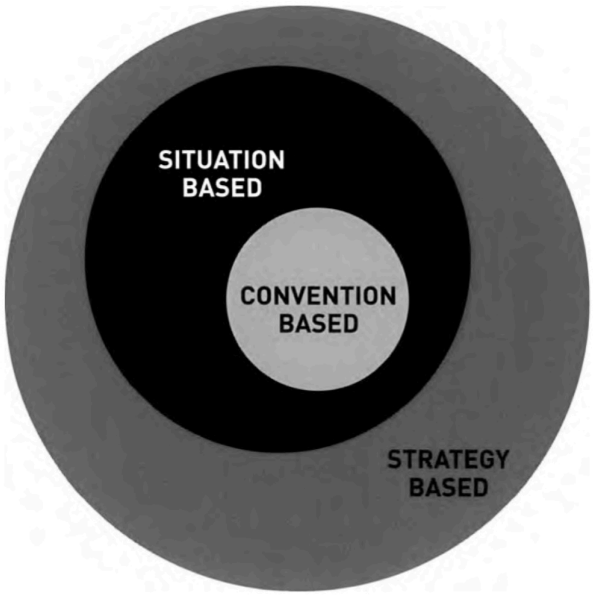
4. The **expert** responds to a specific situation intuitively, and performs the appropriate action straightaway. There is no problem solving and reasoning that can be distinguished at this level of working. This is a very comfortable level to be functioning on, and a lot of professionals do not progress beyond this point.

5. The **master** sees the standard ways of working that experienced professionals use not as natural but as contingent. A master displays a deeper involvement into the professional field as a whole, dwelling on successes and failures. This attitude requires an acute sense of context, and openness to subtle cues.

6. The **visionary** consciously strives to extend the domain of operation developing new ways of doing things, outcomes, definitions of the issues, opens new worlds and creates new domains. The visionary operates more on the margins of a domain, paying attention to other domains as well, and to anomalies and marginal practices that hold promises for a new vision of the domain.

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

DESIGN THINKING STRATEGIES



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“SUUNNITTELE ROSKIENKERUUJÄRJESTELMÄ UUDEN JUNAN MATKUSTAMOON”

Taustatiedoksi annettiin kaikki tarvittava, esim
- projektin taustoitus
- Mukana olevat tahot
- Junan mitat
- Olemassa olevien junien käyttäjätutkimus

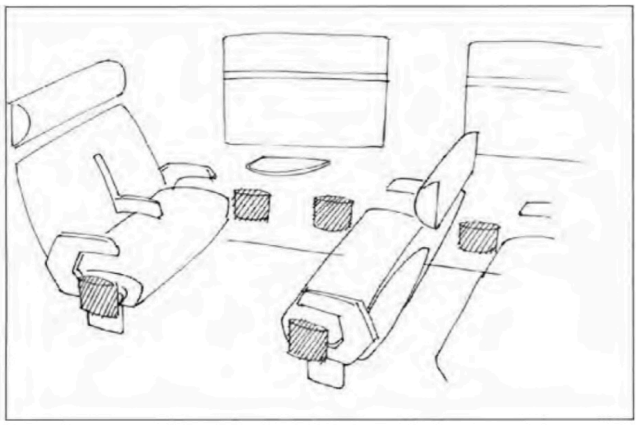

Fig 2.13 Convention-based design thinking in action: the most obvious and immediate stakeholder, the train passenger, is well catered for. The interests of the other important stakeholder, the cleaners, have not been taken into account—in fact, this design creates huge problems for them

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

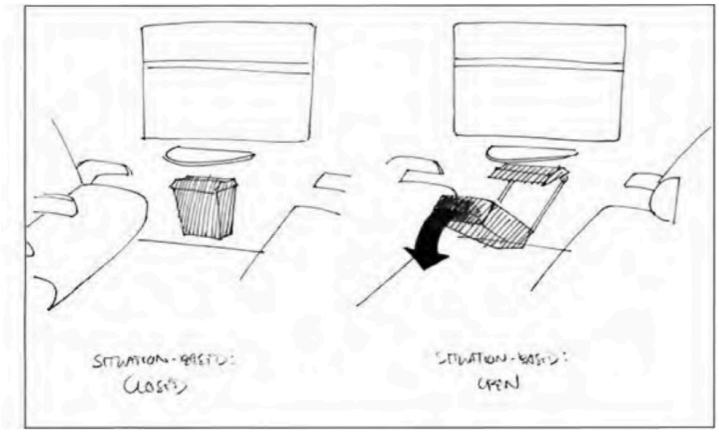

Fig 2.14 Situation-based design thinking: the special properties of this specific design challenge are taken into account

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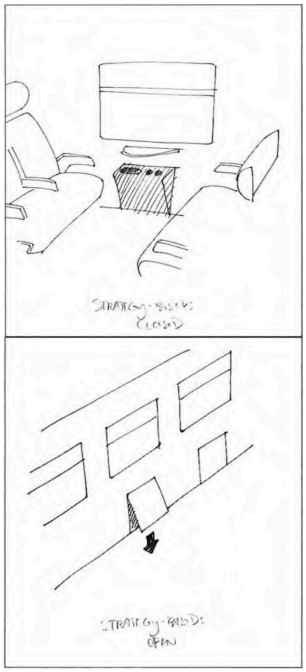


Fig 2.15 Strategy-based design thinking: the design situation has been changed by proposing a different system border—opening up the possibility of a completely different set of design proposals

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

DIFFERENT LEVELS OF EXPERTISE

A design assignment was given to 12 second and 12 final year students of Industrial Design. They had 2.5 hours to come to a design proposal. Each student worked individually, and they were asked to think aloud while designing. The sessions were video recorded for analysis of the design processes and the student's design thinking. They had to develop a litter system for a new Dutch train (see also Chapter 2). The resulting designs were all redrawn on a standard format and judged by a panel of design specialists.

The designs of the 2nd year students were actually judged to be significantly better than those of the final year students! This of course spurned further analysis—it cannot be the goal of a design school to deliver designers to the job market that are worse than when they come in... On further analysis of the tapes a pattern emerged; the 2nd year students worked quite fluently and easily on the design task because they saw a much simpler problem than the final year students. Happily unaware of many complications, they playfully created quite imaginative solutions. Not so the final year students. They all started out on a long analysis of the design situation, actually taking onboard many more of the relevant issues in the problem arena. They made long lists of specifications. But they then apparently lacked the skills to get to a design of sufficient quality within the time available to them. There was an imbalance between their analytic and synthetic skills, and that resulted in particularly poor results.

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

20%

"ITSEARVIOINTI JA SISÄISTÄMINEN"

TEKOJA JA TOIMINTAA

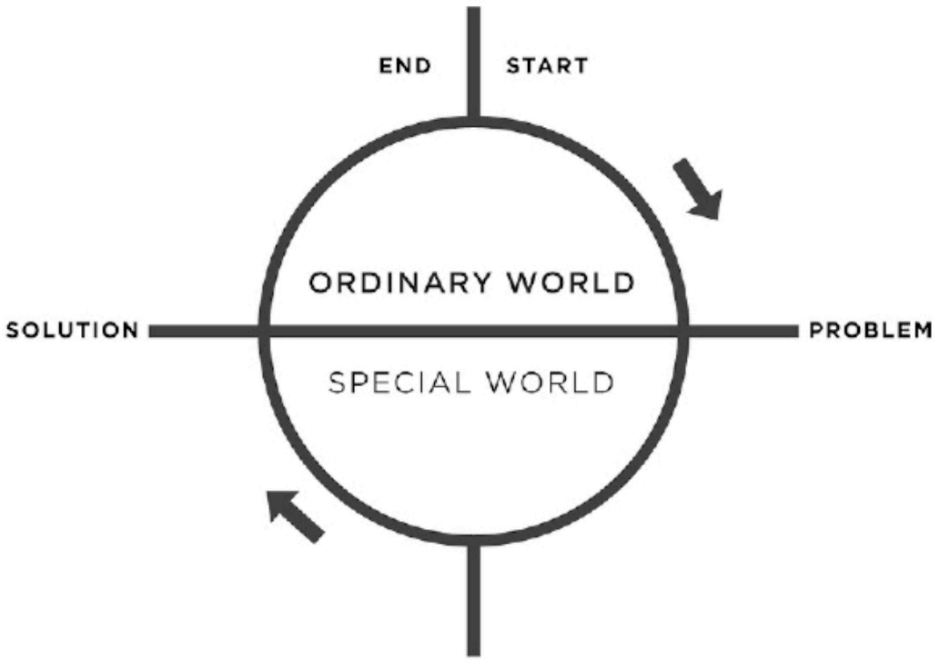


Figure 10. The story circle. It doesn't get much simpler than this. Ever heard the expression "come full circle"? It's part of our narrative nature.

Olson, Randy. 2015. Houston, we have a narrative: Why science needs story. London: University of Chicago Press.

PIDÄ MIELESSÄ

One possible way forward here is to require teams to perform a review of recent relevant projects at the beginning of each new project. This at least has the advantage that those who are doing the work stand to benefit from it and also have some reasons for looking critically. This is rather like reading a book or visiting a building. If you have no particular context it is amazing how little you can get out of the process. Have a particular current problem in mind and the book or the place suddenly reveal all sorts of useful ideas.

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

KERÄÄ

One advantage of being a designer is that you are literally surrounded by examples of design, good and bad. Designers then accumulate experience of designed objects both from their own field of design and others. Many designers habitually carry small sketchbooks in order to draw things they see. Some do this in a very casual manner while others, like the architect John Outram, appear to use more formal analytical techniques.

In fact, designers frequently claim to have gained inspiration from examples of work well beyond their own field. The great industrial designer Raymond

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

Perhaps the designer remains an exception to this trend. In looking at things around us, designers are seeking out not just one correct classification but instead searching for ideas that might be useful in the future. The whole idea of precedent collecting, which we discussed in detail in Chapter 4, is based upon this notion. Designers are essentially mental collectors of apparent garbage that might just come in useful when tackling some yet unforeseen problem. In this sense, they are not so much interested in the classificatory properties of an object as what Gibson would call its 'affordances' (Gibson, 1986).

Gibson, James J. 1986. The ecological approach to visual perception. Hillsdale, NJ: Lawrence Erlbaum.

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

Kuva: Google Merchandise Store

BEYOND CONVENTION-BASED DESIGN

A colleague used to set students of architecture and engineering an apparently abstract project. The brief was remarkably simple. It demanded that a series of identical loads were to be suspended in space. The point of suspension of these loads all had to be a minimum height above ground. The loads must have a minimum distance between them. The task was to produce the simplest and most efficient structure to perform all this. The students would work away on this s that were presen ble model.

ABSTRAHOI

In fact, the brief was that for an electricity pylon. The loads were the various power cables and the distances were all required for safety reasons. The discussion at the end of the project was always not so much about the detail design but whether any designs had really come up with anything original. The whole point being that it would have been even more difficult to break away from the traditional pylon design, if the students had known that was what they were designing.

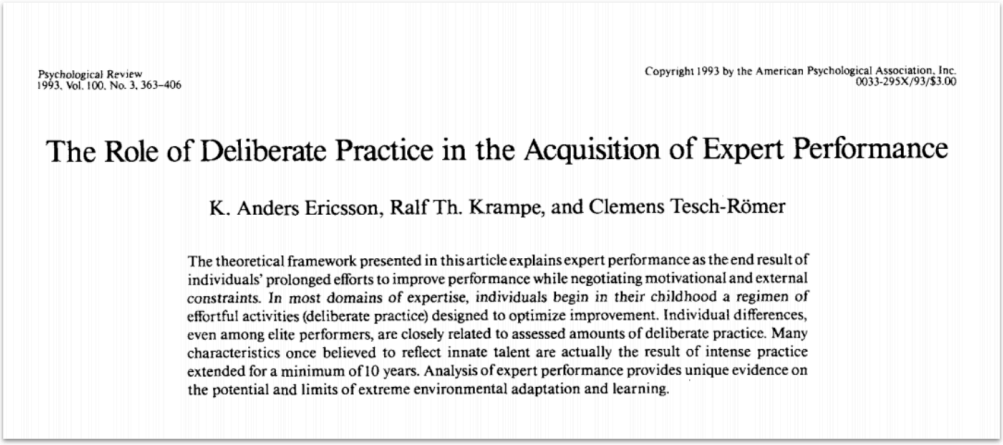
Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

KOPIOI JA KEHITÄ

Others have suggested that quality in design should not always be associated with originality for its own sake. The Pritzker Prize-winning Australian architect Glenn Murcutt is fond of a quotation from Thoreau that his father taught him. 'Since most of us spend our lives doing ordinary tasks, the most important thing is to carry them out extraordinarily well'. In a similar vein the English architect Bob Maguire talks of striving for 'a high standard of ordinariness' (Maguire, 1971). This suggests that highly professional design may often be a matter of refining a set of ideas rather than inventing entirely new ones. As Mies van der Rohe put it: 'certainly it is neither necessary nor possible to invent a new kind of architecture every Monday morning'.

Lawson, Bryan, and Kees Dorst. 2009. *Design expertise*. New York: Routledge.

HARJOITTAMINEN



Psychological Review
1993, Vol. 100, No. 3, 363–406

0033-295X/93/$3.00

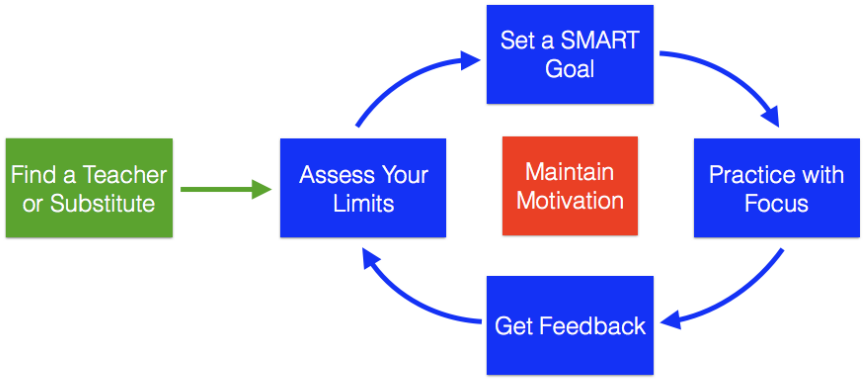
The Role of Deliberate Practice in the Acquisition of Expert Performance

K. Anders Ericsson, Ralf Th. Krampe, and Clemens Tesch-Römer

The theoretical framework presented in this article explains expert performance as the end result of individuals' prolonged efforts to improve performance while negotiating motivational and external constraints. In most domains of expertise, individuals begin in their childhood a regimen of effortful activities (deliberate practice) designed to optimize improvement. Individual differences, even among elite performers, are closely related to assessed amounts of deliberate practice. Many characteristics once believed to reflect innate talent are actually the result of intense practice extended for a minimum of 10 years. Analysis of expert performance provides unique evidence on the potential and limits of extreme environmental adaptation and learning.

Hyvä blogiteksti aiheesta: https://jamesclear.com/beginners-guide-deliberate-practice

The Deliberate Practice Roadmap



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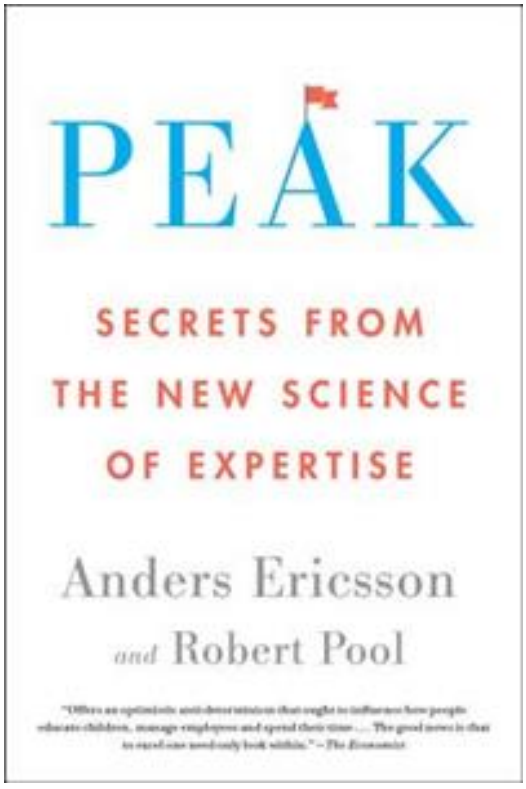

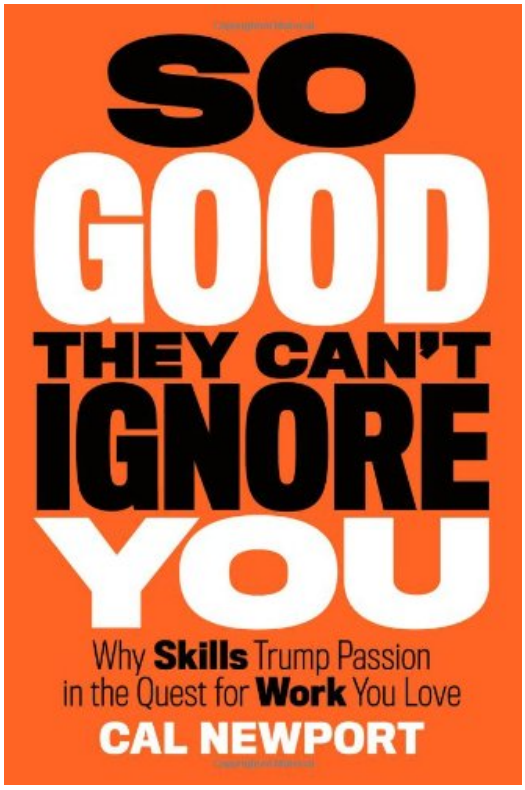

VIIKKOTEHTÄVÄ 3: HARJOITUSOHJELMA (10p)

- Laadi itsellesi harjoitteluohjelma, jonka avulla treenaat jotakin muotoiluopinnoissasi tarpeellista osaamista. Perustele valintasi.
  - Muista riittävän pienet välitavoitteet
  - Mietin, miten voit mitata edistymistäsi
  - Mieti, millaista harjoitteluapua tai valmennusta tarvitset, saat ja voisit saada
  - Aikatauluta realistisesti.
- Tehtävässä käytetty ohjelma vapaa, eli esim Word käy hyvin.
- Formaatti: PDF. Kieli: Suomi, englanti, ruotsi.
- Palautus ke 1.512. klo 9:00 mennessä (kurssin viimeinen tapaaminen, periodin viimeinen viikko 7).

Arviointi:

- Hyvässä toteutuksessa on kaikki tehtävässä pyydetyt elementit; ilmaisu on huolellista ja selkeää. **Tehtävään on käytetty korkeintaan tehtävään annettu aika.** (5-7p)
- Erinomaisessa toteutuksessa on tehtävän tekoon on selvästi paneuduttu. Ilmaisu on huolellista, selkeää, johdonmukaista ja tyylillisesti yhdenmukaista, olematta silti monotonista. **Tehtävään on käytetty korkeintaan tehtävään annettu aika.** (8-10p)
- Heikossa toteutuksessa tehtävästä puuttuu yksi tai useampi tehtävässä pyydetty elementti; ilmaisu on epäselvää ja huolimatonta. Kokonaisuus ei hahmotu. **Tehtävään käytetty aika alittaa selvästi tehtävään annetun ajan.** (0-4p)