

Golden Advice from the Handbook

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Ready to go?

```
if you.ready:  
    you.shout(loud)  
else:  
    you.be(quiet)
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Advice 1

Stop using the word *datalogi*; use *computing*, *computology*, or *software science* instead.

[Curry & Katajainen, *Reengineering a university department*, p. iii]

By the vast majority, the discipline exercised at our department should be called *computer science* (*computervidenskab* in Danish). (Observe that the other computing disciplines recognized by the ACM/IEEE computing curricula are: computer engineering, information systems, information technology, and software engineering.)

Our mission

The objective of our department is to be a base for **research** and **teaching** in the domain of computing, both being done at the highest international level.

[Curry & Katajainen, *Reengineering a university department*, p. iii]

Problem

For some reason young people do not want to study computing. The problem is global and not only experienced in our department. **What to do?**

The number of students who started their studies at our department (as the first of October, except for 2008):

2000	2001	2002	2003	2004	2005	2006	2007	2008
205	206	209	207	163	88	76	103	86

Advice 2

Send students as study ambassadors to high schools.
Arrange open-day events during weekends.

[Curry & Katajainen, *Reengineering a university department*, p. 101]

Advice 3

Aim at being better than the best competitors. Benchmark against the best organizations in the world regardless of the industry.

[Curry & Katajainen, *Reengineering a university department*, p. 29]

Advice 4

Change the name of our department to
Peter Naur school of computing.

[Curry & Katajainen, *Reengineering a university department*, p. 11]

Information-gathering techniques

- Interviews
- Facilitated workshops
- Document analysis
- Surveys
- Site visits
- Business-process analysis
- Work-flow and task analysis
- Event lists
- Competitive-product analysis
- Reverse engineering of existing systems
- Retrospectives performed on the previous projects.

[Wieggers, *Software Requirements*, § 4]

Advice 5

Use clear performance indicators; for example, annual output of bachelors and masters, actual study time of bachelors and masters, throughput of courses, and employment rate of just graduated.

[Curry & Katajainen, *Reengineering a university department*, p. 3]

Advice 6

Gather our own statistics and publish them on our web pages.

[Curry & Katajainen, *Reengineering a university department*, p. 111]

What is the prescribed study time for a part-time student taking his or her master's degree?

Study efficiency

Even if we know who study part-time who full-time, we will not get the **productivity bonuses** promised by the government! Students, who take their bachelor's degree in 4 years and master's degree in 2 years, will generate extra income for our department. 10% of all funds to higher education will be moved to this bonus system in 2010.

Advice 7

Provide a recognized curriculum based on international practice.

[Curry & Katajainen, *Reengineering a university department*, p. 118]

Is our course on *Operating Systems* CS225T, CS226C, CS226S, CS221W, CS222W, or CS325?

Advice 8

Discontinue lectures for standard undergraduate courses. Rely on video lectures instead.

[Curry & Katajainen, *Reengineering a university department*, p. 35]

Have you checked out the complete video lectures available at the MIT for the course *Introduction to Algorithms*?

Conjecture

We cannot solve this problem and our other business problems through conventional thinking and improve what has long existed.

[Curry & Katajainen, *Reengineering a university department*, p. 10]

Recall our core business

- Our mission is **not** to fill in forms correctly.
- Our core business is **not** to move paper.

Advice 9

Involve all permanent workers in our core business, i.e. research and teaching.

[Curry & Katajainen, *Reengineering a university department*, p. 174]

Advice 10

Organize people around teams (research labs and course teams) and close functional units.

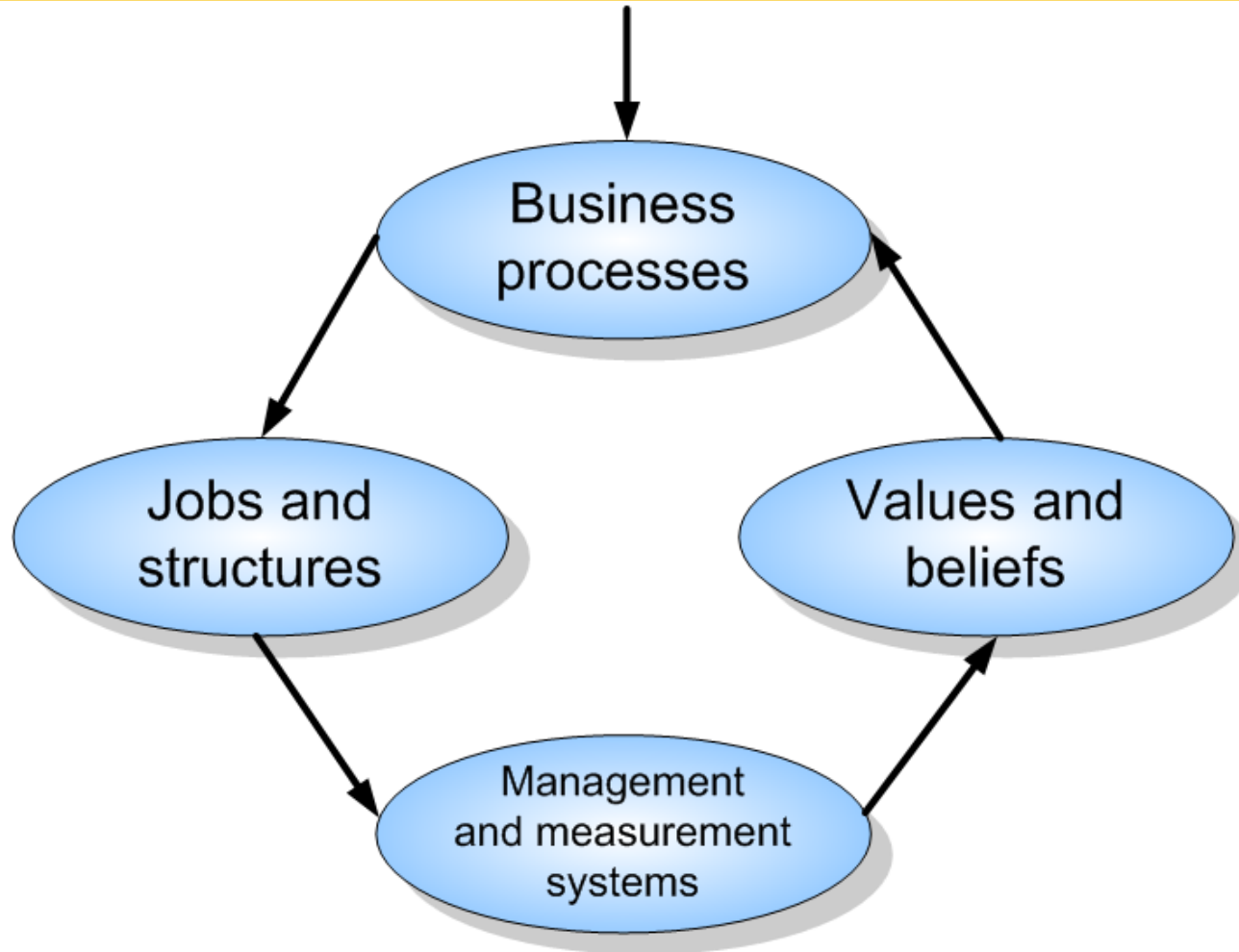
[Curry & Katajainen, *Reengineering a university department*, p. 22]

Advice 11

Require that each student, who starts in our master program, signs a contract with a research lab.

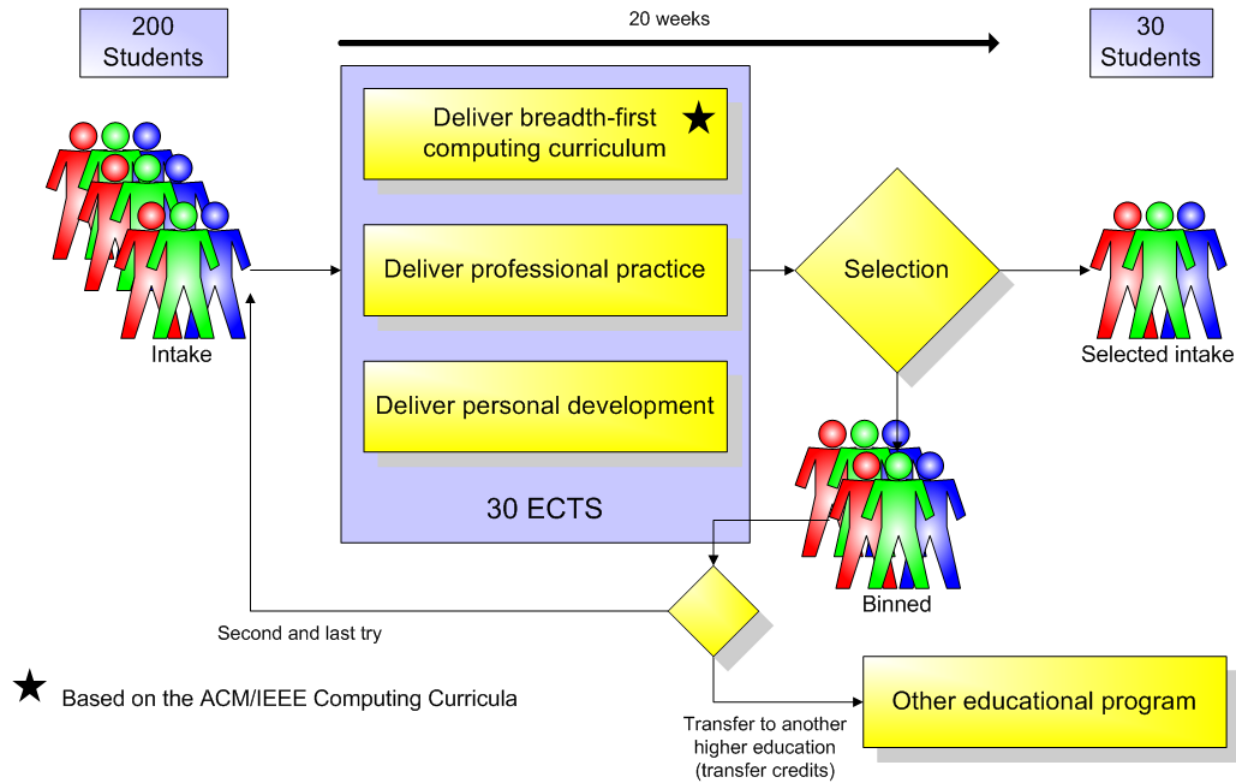
[Curry & Katajainen, *Reengineering a university department*, p. 115]

Organizational change



[Hammer & Champy, *Reengineering the corporation*, p. 85]

Advice 12



[Curry & Katajainen, *Reengineering a university department*, p. 125]

Advice 13

Have *no* fixed chairs and desks for teachers and students.

[Curry & Katajainen, *Reengineering a university department*, p. 159]

Advice 14

Provide variety, action, and concreteness in courses through understanding the learning preferences of students and teaching preferences of teachers.

[Curry & Katajainen, *Reengineering a university department*, p. 115]

Example from a course evaluation

We got in total 12 answers (of 18 students) to our course evaluation:

1) Give the two **most** valuable course components for your learning:

A	B	C	D	E	F	G
5	3	5	8	0	1	2

2) Give the two **least** valuable course components for your learning:

A	B	C	D	E	F	G
4	2	1	2	1	5	5

Codes: A) Lectures, B) Discussion sessions, C) Workshop, D) Assignments, E) Project, F) Exam, and G) Textbook(s) and other teaching material.

Advice 15

Create the faculty of artificial sciences at our university to merge computing disciplines with other similar disciplines.

[Curry & Katajainen, *Reengineering a university department*, p. 173]

Think big!

Excuses for doing nothing

- The realization of our action plan costs too much;
- the plan is unrealistic, outrageous, and against current regulations;
- there is no guarantee for success; and
- we are not allowed to go solo.

[Curry & Katajainen, *Reengineering a university department*, p. 167]

Keep going ...

The strategy is in the handbook; the details are left to you.

[Curry & Katajainen, *Reengineering a university department*, p. 174]