Models of Teacher Evaluation and School Accountability Around the World:

DENMARK

by Jakob Wandall
My background

- Research, social science, 10yrs
- Ministry of Education, 15yrs.
- R&D of educational/assessment technology, (independent Consultant)
Facts about Denmark

Denmark

- 4.9 million inhabitants
- 90% ethnic Danes

The public primary and lower secondary education in Denmark, "Folkeskolen":

- 600,000 pupils, 60,000 per grade level
- Approximately 2,000 public schools, of which 1,300 are ordinary folkeskoler
- School governed by decentralized local governments → significant differences from municipality to municipality
- 3-5 pupils per new computer (<3 years) – some places 1:1
- Highspeed internet-connection almost everywhere
  → Infrastructure suited for IT-based assessment

Assessment in Denmark, "Folkeskolen":

- Summative – Final examination after 9th grade
- Formative – National testing system (10 adaptive tests from 2nd-8th grade)
Netherland VS Denmark
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Dutch anthropologist* describes Danes with 4 cultural dimensions

- **Power Distance**: Danes do not lead, they coach. And employee/student autonomy is required. Argument counts, hierarchy doesn’t.

- **Masculinity / Femininity**: Danes value equality, solidarity and quality in their working lives. Conflicts are resolved by compromise and negotiation until consensus has been reached.

- **Individualism**: Denmark is an Individualistic society. Welfare state - High taxes – large public sector. Individuals are expected to take care of themselves and their immediate families only.

- **Uncertainty Avoidance**: It is ok to say “I do not know” and the Danes are comfortable in ambiguous situations.

Comparison of cultures, 4 Dimensions

- Power Distance: Respect for power, acceptance of authority
- Individualism: (vs. Collectivist society)
- Masculinity / Femininity: Motivation by competition
- Uncertainty avoidance: Need for rules/instructions

Source: http://geert-hofstede.com/netherlands.html
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The Danish Act on public primary and lower secondary school

Section 1. STATEMENT OF PURPOSE:
(1) The school must - in cooperation with the parents – give the students knowledge and skills that:
   1. prepare them for further education and make them want to learn more,
   2. make them familiar with Danish culture and history,
   3. give them an understanding of other countries and cultures,
   4. contribute to their understanding for human interaction with nature and
   5. promotes the individual student's personal overall development.

(2) The school must develop working methods and provide a framework for experience, reflection and dynamism so students develop awareness and imagination and confidence in own ability, makes a stand and take action.

(3) The school should prepare students for participation, joint responsibility, rights and duties in a society of freedom and democracy. School work must therefore be characterized by intellectual freedom, equality and democracy.
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- Knowledge & skills are defined as means, not objectives.
- What could we call the objectiv? Development of wisdom?
Danish Results vs. Economy

“Denmark has one of the most expensive education systems in the world, and for years perceived it to be one of the best in the world.

However the disappointing results of recent international tests to measure schooling outcomes confirmed earlier evidence, that the system actually is underperforming.”

Review of National Policies for Education, Denmark, OECD 2004
National testing system 2010

- Full scale implemented in spring 2010
- Adaptive testing:
  - 10 mandatory test: Reading (2-4-6-8), Math (3-6), English (7), Physics, Geography & Biology (8)
  - 3 contend areas in each test,
  - Strictly formative (results are confidential)
  - Teachers sets the rules (limited comparability)
- Assessment of students – not of teachers/schools!!
- First tool for measurement of reading on a scale in DK
  Like in Netherlands: Lots of schools don’t know what to do with the results
Reading - Growth & deviation

Progression/percentiles (DNT, Reading comprehension, 2010), grade 2-9

Elevdygtighed/Student ability (Logits / Rasch-locations)

Klassetrin/Grade level

-4 -3 -2 -1 0 1 2 3 4

-4 -3 -2 -1 0 1 2 3

90'th percentile
75'th percentile
50'th percentile
25'th percentile
10'th percentile
Reading - Growth & deviation

Progression/percentiles (DNT, Reading comprehension, 2010), grade 2-9

Growth from 4-8’th grade=1,19 logits
⇒ 0,3 logits pr. grade level

Distance from 10-90’th percentile = 2,9 logits ⇒ 9,8 grade levels
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No doubt: We need to monitor school quality and provide optimal information to the schools/teachers.
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- Culture – discipline and habits.
- Parents – They criticize, they don’t back up.
- Students – They don’t want to make an effort.

Hattie’s suggestion, ITC-Hong Kong 2010: We need a new concept, “game like” individual learning activities, having fun, learning, measuring at the same time.
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We cannot change Schools and we cannot change People. But we can develop new learning technology.

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3 generations of testing in DK

1: DK-Exams (1814):
   ◦ Purpose: Summative / Information for the system
   ◦ Assessment of learning

2: DK-National testing (2010):
   ◦ Purpose: Formative /
   ◦ Assessment for learning

3: (Near?) future: Testing embedded in training
   ◦ Purpose: Enhance & monitor learning
   ◦ Assessment with learning – There exist some fully developed solutions, but only in English language.
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- “But we do need to have accountability & to measure our kids’ progress”
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A Dane (from pig farming country) would say:
- Why not try to make it eat, while measuring?