The curriculum paradox

- Individualised learning – inclusive schools
  - Responding effectively to diverse learning needs of individuals
- Learning objectives assigned to years
  - everybody learning the same / reaching the same objectives at the same time
- National (high-stakes) tests that
  - measure every student by the same yardstick
  - treat individuals equally at the cost of treating them humanly, resulting in ‘naïve egalitarianism’ (Proppé, 1983)
  - (in Shepard’s, 2000 and Darling-Hammond’s, 1997 view) encourage rejection of more students and ineffective reactions to learning difficulties
The national tests and the National curriculum

- National tests to
  - evaluate the implementation of the NC and how aims and objectives are met in schools

- Discrepancy between tests and curriculum
  - i.e. some content areas of the NC is not tested on the NT (and can not be on a pencil and paper multiple choice test)
Inferences of dubious validity

- The tests do not reflect the curriculum
- There is evidence that school average results are boosted by teaching to the tests

ERGO:

1. Inferences of dubious validity are made about school and teacher performance from the test results
2. Upper secondary schools that use the test results to regulate their intake base their decisions on a rather narrow portrait of students’ attainment
Teachers

- Tension between the requirements of the NC; most teachers’ own conceptions about teaching and learning and what they conceive as the requirements of the tests
- Loyalty to the NC; loyalty to their own conceptions (which is consistent in most cases) and loyalty to students results in a dilemma:
  - Maximising the students’ chances of passing the tests requires choice of content and teaching arrangements that are inconsistent with both the NC and their own conceptions
The national tests as assessment

- The wash-back effects of the NT are rather obvious
  - Not-tested subjects are marginalised
  - Not-tested curriculum areas of tested subjects are marginalised
The content of the 1999 Science curriculum

From the physical sciences
From the earth sciences
From the biological sciences

About the nature and role of science
About methods and skills
The content of the 1999 Science curriculum

About the role and nature of science
- Practical knowledge
- Scientific knowledge
- The history of science
- Science, technology and society
- Attitudes to the environment, nature and science

About methods and skills
- Definition of the problem
- Planning and organisation
- Implementation, recording and data analysis
- Interpretation and evaluation
- Presentation and communication

From the physical sciences
- Matter and properties of matter
- Force and motion
- Light, sound and waves
- Electricity and magnetism
- Energy and energy use

From the earth sciences
- The earth in the universe
- Air, land and water
- Geology, geomorphology

From the biological sciences
- Char. and diversity of living things
- Life cycles
- Genetics, adaptation and development
- Relationship of living things and their environment
- Structure and function of living things
- Behaviour of animals
The teaching of the 1999 Science curriculum

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Textbook coverage - surface learning rather than constructed knowledge
Understanding & deep learning

Information and facts - surface learning rather than constructed knowledge

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The content of the 1999 Icelandic curriculum

- Literacy & reading comprehension
- Spoken language and expression
- Viewing and listening skills
- Writing (compositon skills)
- Literature
- Grammar

There is evidence that grammar & spelling get over 50% of the teaching time in Icelandic at the expense of the other areas, in particular, spoken language and expression & viewing and listening skills
Differentiation

- Not many examples of effective differentiation
  - A common response of teachers is that all students end up in the same test so why differentiate teaching?
  - Authoritarian whole class teaching to cover as much textbook material as possible within tight time limits
Motivation and learning culture

- The dominant teaching organisation is not motivating for students (according to interviews with themselves)
- There are indications of a learning culture dominated by learning to pass the tests rather than learning on its own merit
The attained curriculum

- There seems to be more transfer of facts from textbooks than constructed knowledge, metacognition and developing of thinking skills
- There seems to be more surface learning than deep learning and understanding
- There seems to be more lower order than higher order tasks and knowledge
- Inclusion and individualised learning have a lot of ground to cover