

Out-of-school programs for precocious children



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Purpose of our study

Explore the experience of two out-of-school programs in Iceland:

PCPA - Precocious children – Proper Assignments 2001 – 2004

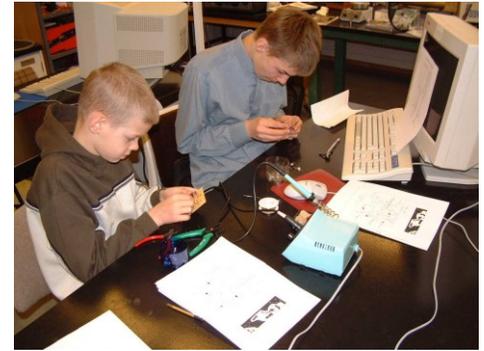
Assignments for children aged 10 to 14

Reykjavik Education Centre – University of Iceland – Home & School Association

AD ASTRA 2007 – 2011

Assignments for children aged 11 to 15

Private limited company (Ad Astra) in cooperation with the University of Reykjavík



Committee on G/T education 2004

G/T children are likely to possess some of the following characteristics:

- Tend to develop special abilities at an earlier age than is usual or expected
- Strong intrinsic motivation towards learning and exploring things
- Quick in resolving unfamiliar information and transfer knowledge
- Abstract thinking and solving unfamiliar problems
- Scoring high on tests and assessment in schools
- Sensitive and ready to show empathy
- Critical and ready to draw attention to discrepancies
- Well organized
- Have the desire to dig deeper and learn more
- Rational thinking and seek causality
- Exceptionally creative and og imaginative
- Ability as a leader
- Talent in art, design, drama, sports etc.

Joseph Renzulli Three-ring model



Renzulli, J. S. , 2016

Iceland ...



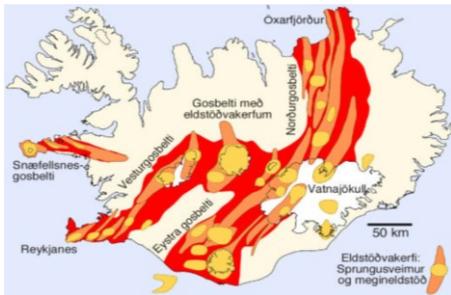
A thinly populated island in the North Atlantic Ocean close to the Arctic circle

Area of 103,100 km² located on the Mid-Atlantic ridge between Europe (Eurasian plate) and N-America (North American plate).

Iceland ...



A population of 370,000 (little over 1/3 of a million) dispersed along its coasts



Among the most active volcanic areas of the world. A volcano near Reykjavik has been erupting for 6 months now



Glaciers cover one tenth along with lots of rivers, waterfalls, geysers, and fiords

Climate: Windy, cloudy and unstable, but warmer than the northern latitude indicates because of the warm Gulf stream, and bright summer nights

Culture: Evening wakes (i. kvöldvökur)

- The climate and the northern location of the island with its long and dark winter periods have provided specific circumstances to sustain a literary tradition
- Families assembled indoors during long winter nights on evening wakes (i. kvöldvökur), a significant cultural tradition dating since the middle ages involving intellectual activities such as loud reading of the ancient sagas, singing, doing poetry and rhymes, Bible reading, and telling ghost stories.



Icelandic Eccentrics and Vagabonds were an important part of the old culture

They wandered around the island singing, dancing, reading, playing and immitating priests etc. like clowns and troubadours:

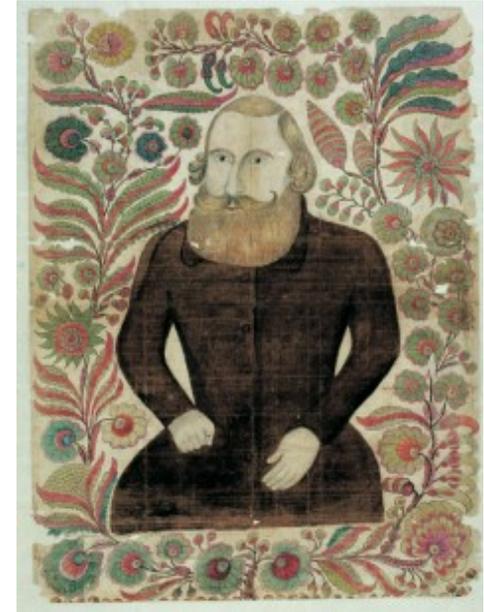
- *Helgi the omniscient*
- *Johann the naked man*
 - *Shorty Sigga*
- *Sæfinnur wearing 16 shoes*
- *Humming Guðmundur*
 - *Old Vigga*
 - *Imba the drag*
 - *Halldór Hómer*



The wise 'Mr. Sjulvi' (Sölvi Helgason 1820 - 1895)

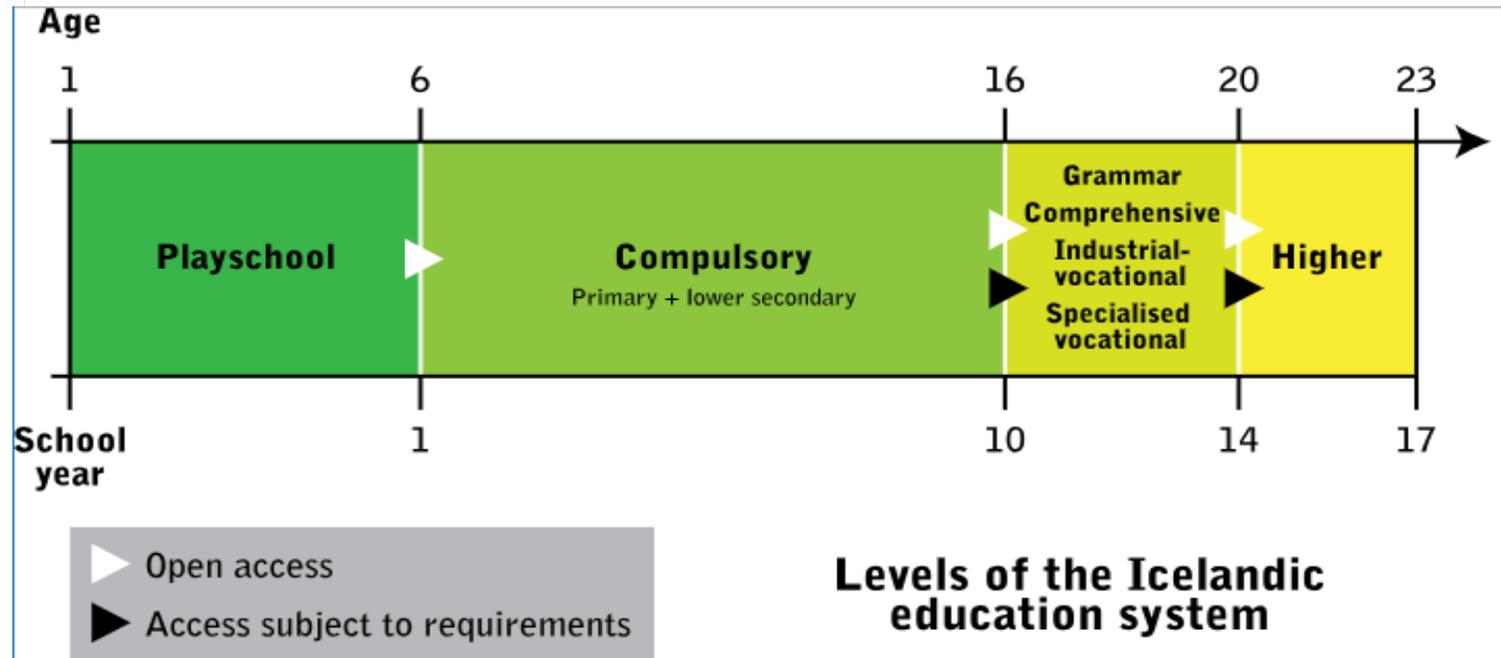
Sölvi Helgason (1820 – 1895) an artist, a rebel and a philosopher

- *He who possesses unique gifts and talents is likely to be misread by his fellowmen*
- *He who has the desire to learn is bound to miss education*
- *The dreamer will be ridiculed by his fellow citizens*
- *A wise man may be taken as a fool*



The Icelandic School System

Iceland's population 1/3 of a million



- Each cohort (year) consists of $\approx 4,800$ students

Teachers and Schools

- Compulsory School Teachers in Iceland: 5310
 - Female 85% - male 15%
 - Unqualified 12%
- Compulsory schools 173, with numbers of pupils from 2 per school to 800 (average number of pupils pr school 250)
- A “graying” teaching force:
Average age in 2000 42.2 years
In 2016 it was 46.8 years

Do teachers feel respected as professionals?

- *What we need are challenges in our work as professionals not only to receive praise but to receive genuine recognition and respect*

Middle school teacher

TALIS study:

- *Less than 20% of Icelandic teachers agree or strongly agree that the profession is highly appreciated*

Implementation of Inclusive Education:

- *It turns out to be a more difficult challenge than expected, encompassing meetings, organizing all kinds of assignments, lots of paper work, and tackling individual problems*

Nordic data/Halla Jónsdóttir, 2010;

Reykjavik City Council, Committee for Education, 2017

Study on giftedness in lower-secondary grades

Few Icelandic compulsory school teachers specialize in math and science

Study on giftedness in lower-secondary schools:

- Jón had moved home from USA when he was 10 years old. His math learning changed drastically when he started school in Iceland. He turned out to be way ahead of the others in math so he was sent to the library to work alone:
 - *It is difficult to sit alone away from the others, trying to think and solve problems all by yourself. I miss the complex math problems, challenges and creativity when solving problems.*

Ragna F. Gísladóttir, 2014

Are teachers experts? What is their expertise?

- *School teachers are the masters of what most people of voting age already know*
- *What they teach isn't rocket science; it's common knowledge*
- *They may be specialists in mathematics education, science education etc.*
- *But they do not have credibility as mathematicians, scientists etc.*
- *Subject matter expertise is lodged outside the education school*

David Labaree, 2004

Students with exceptional ability and/or strong motivation to learn certain things

No fixed label, many words in use:

Globally used:

- Gifted
- Surdoué
- Précoce - **Precocious**
- Begabte
- Intellectually precocious
- Talented
- G/T (Gifted & Talented)
- Very able
- More able
- Exceptional ability
- Genius

Icelandic words:

- Afburðanemendur
- Afburðagreind
- **Bráðger**
- Námshestar
- Hæfileikaríkir
- Framúrskarandi
- Bráðþroska
- ...

A child developing exceptional abilities at an earlier age than is usual or expected

Discussion and actions concerning precocious children in Iceland...

- Since the 1980s the pendulum has swung 'nervously' to and fro when questions have risen about giftedness
- How to identify G/T students, whether they should receive special provisions in schools or out-of-schools, and how the school system should meet their needs
- Three pull-out programs:
 - NER 1985 – 1996
 - **PCPA project 2000 – 2004**
 - Ad Astra 2006 – 2009 (2011)

The implementation of PCPA in 2001 - 2004



Autumn 2000: meeting between Reykjavik Educational Centre (REC),
The University of Iceland (UI) and Home & School Association (HS)

- G/T students needs for deeper and more complex assignments
- Challenging and thought-provoking problems and higher-order thinking

Implementation of PCPA

Autumn 2000: meeting between Reykjavik Educational Centre (REC),
The University of Iceland (UI) and Home & School Association (HS)

Out-of-school program: an experimental project

Focus on middle grade students

Focus on science and math – other fields followed

Focus on feedback, hands-on and student collaboration

PCPA – Description

Temporary experiment for G/T children in 2001-2004

Criteria at first: Scores at a national exams in Icelandic and Math

The project was based at the University of Iceland (UI)

- Tutors and facilities

PCPA – Description

Temporary experiment in 2001-2004

Criteria: high score at a national exam in 4th grade

Based at the University of Iceland (UI)

15-25 different projects offered each time

- Natural science and math at first
- Language arts, law, philosophy, statistics and more came later

PCPA – Description

Temporary experiment in 2001-2004

Criteria: high score at a national exam in 4th grade

Based at the University of Iceland (UI)

15-25 different projects offered each time

Final event – participants celebrated and presented their project

Main Problems and Obstacles

Finance

- External financing and participation fees

Main Problems and Obstacles

Finance

Timing

- Participants – e.g. extracurricular activities
- University teachers

Main Problems and Obstacles

Finance

Timing

Detachment from home schools

- Opposition from teacher union
- Teachers and principals not always happy that their students participated in programs they knew little about

Main Problems and Obstacles

Finance

Timing

Detachment from home schools

Identification

Main Strengths and Advantages

Collaboration with the University

- Facilities (accommodation and instruments)
- Access to teachers
- New knowledge not in textbooks
- Impressive to participants
- Insight into science and scientists' work
- Meeting and working with like-minded students