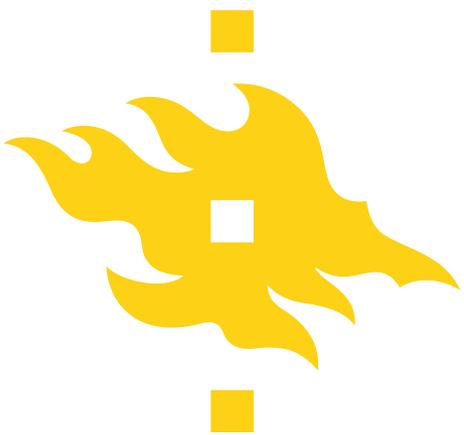


How Talent is Identified and Developed in Finland?

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Among the most red articles in December 2014



Tirri, K. & Kuusisto, E. (2013).
How Finland Serves Gifted and Talented Pupils
Journal for the Education of the Gifted
36 (1), 84-96.



Holistic Education

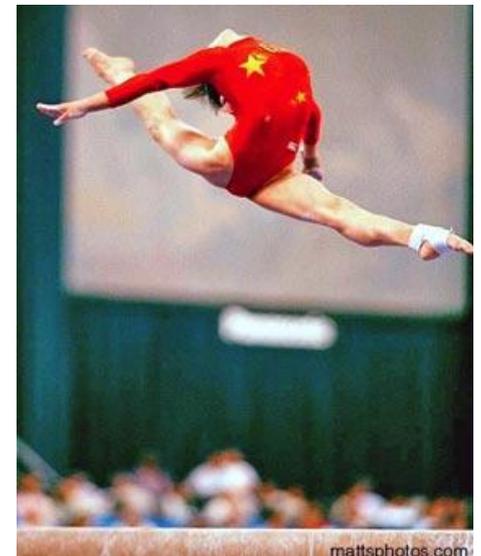
- Holistic view to education: development of the whole person
- Life-long learning: learning to know, learning to do, learning to be, learning to live together (UNESCO 1996, 85-97)
- According to the Organisation for Economic Co-Operation and Development (OECD) Programme for International Student Assessment (PISA) 2001 and 2004, Finnish 15-year-olds score above the OECD average in their performance
- The Finnish students score highest in all tests measuring mathematics literacy (OECD, 2001, 78).
- Finland has best readers in the world (Elley, 1992).





Definition of Talent (Gagne, 2008)

- Talent is the outstanding mastery of systematically developed competencies (skills and knowledge)
- in at least one field of human activity
- to a degree that places individual among the top 10% of age peers who are (or have been) active in that field





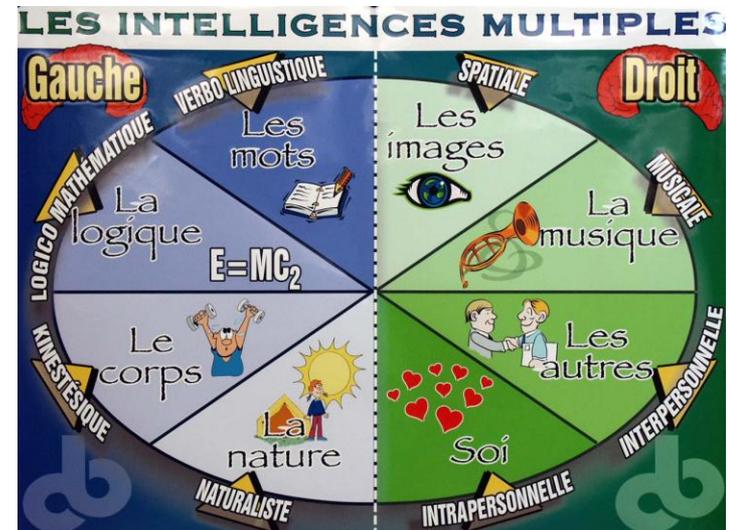
Defining talent development (Gagne, 2008)

- The talent development process is the systematic pursuit by talentees
- over a significant period of time
- of a structured program of activites
- leading to a specific excellence goal



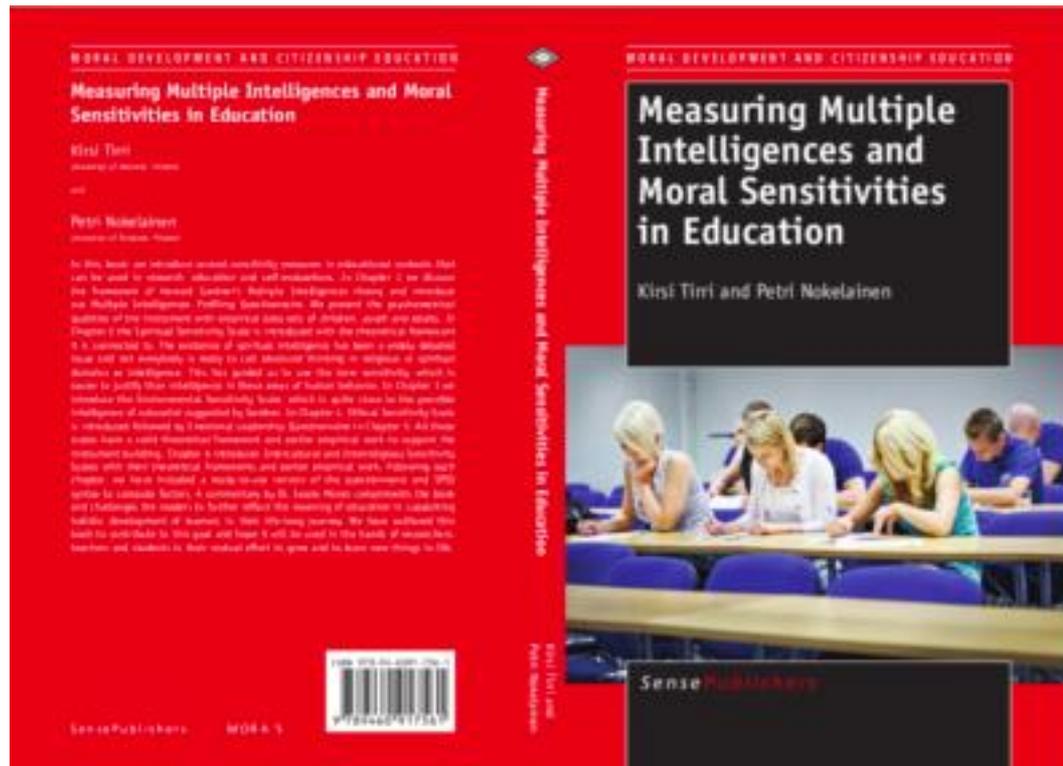
The intelligences

- (1) Linguistic,
- (2) Logical-mathematical,
- (3) Musical,
- (4) Spatial,
- (5) Bodily-kinesthetic,
- (6) Interpersonal,
- (7) Intrapersonal,
- (8) Spiritual?
- (9) Environmental? (Gardner, 1993, xi).





Kirsi Tirri and Petri Nokelainen (2011)





Multiple intelligence profiling questionnaire III (Tirri & Nokelainen, 2008)

- A five-point Likert scale self-rating questionnaire that is based on Howard Gardner's Multiple Intelligence (MI) theory
- MIPQ is aimed to assist both learners in their self-reflection and teachers to understand their student's strengths
- First version of the MIPQ operationalized the seven MI dimensions with 28 items (Tirri, K., Komulainen, Nokelainen & Tirri, H., 2002; 2003)
- Eighth dimension, spiritual intelligence, was added to the second 32-item version of the MIPQ (Tirri, Nokelainen, & Ubani 2006)



Multiple intelligence profiling questionnaire III (Tirri & Nokelainen, 2008)

- Ninth dimension, environmental intelligence, was added to the present, 35-item version of the instrument (Tirri & Nokelainen, 2007)
- Environment intelligence dimension is based on Environmental Sensitivity Scale (EnSS) influenced by the work of Gardner (1999), Morris (2004) and Wilson (1998).
- Sternberg (1991) identifies Gardner's MI theory as a systems approach similar to his own triarchic theory (1985)
- Psychometric nightmare: demonstration of psychometric soundness of the instruments
- Sternberg is calling for hard data that would show that the theory works operationally in a way that will satisfy scientists as well as teachers



Differentiation (Laine & Tirri, 2015)

- In Finland differentiation is the main way to meet the needs of the gifted students in the class-room teaching
- Differentiation is a strategy that takes students' diverse needs, interests, and abilities into account
- A teacher can differentiate the content, process, and products in accordance with students' readiness, interests, and learning profiles (Tomlinson, 1999)

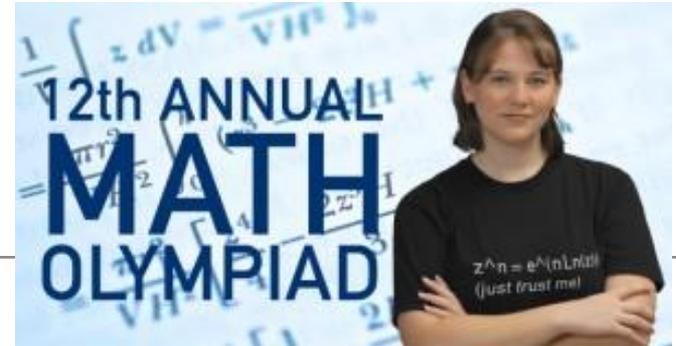


Enrichement

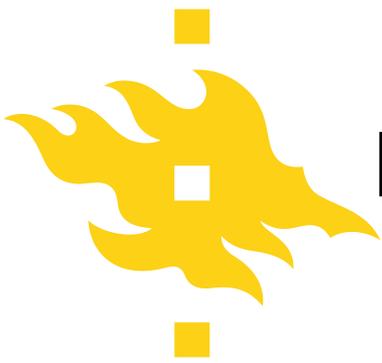
- More challenges in those subjects the student has talent
- Courses, workshops, projects, mentoring, competitions
- Summercamps
- Information Technology and Internet



Competitions



- International Academic Olympiads
- Finland has been involved since 1965
- Most of the Finnish Olympians are now researchers in Academy or work in big companies
- Peer-support and social networks
(Tirri, 2002; Tirri & Campbell, 2002)



Millenium Youth Camp

- Gifted Students in Science (16-19-year olds)
- 30 students from 1000 thousand applicants
- Meets the scientific, social and ethical needs of the students

(Tolppanen & Tirri, 2014;
Kuusisto & Tirri, 2015)



FINNISH ACADEMY OF SCIENCE AND LETTERS



SUOMALAINEN TIEDEAKATEMIA
FINNISH ACADEMY OF SCIENCE AND LETTERS
ACADEMIA SCIENTIARUM FENNICA

- **Membership** is granted to meritorious Finnish scholars, by invitation only. Members represent 10% of Finnish scholars.
- **Academy Club for Young Scientists:** 16 talented young researchers elected for one academic year representing Academy's 15 disciplinary groups
- **Grants** for research awarded annually of over 2 million euros; mainly for young scientists
- **Awards** granted for both young promising scientists and for professors who have already achieved particular academic distinction



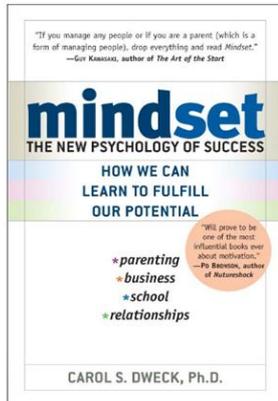
How to support talent development?

- High expectations and warm supporting environment
- Honest assessment of the skills and talents and concrete help in the development process





Two Mindsets (Dweck, 2006)



Growth mindset

- Success and personality are products of hard work and efforts
- Failure is an important part of learning process
- The goal is to learn
- "How did you figure out the way to solve this problem!"

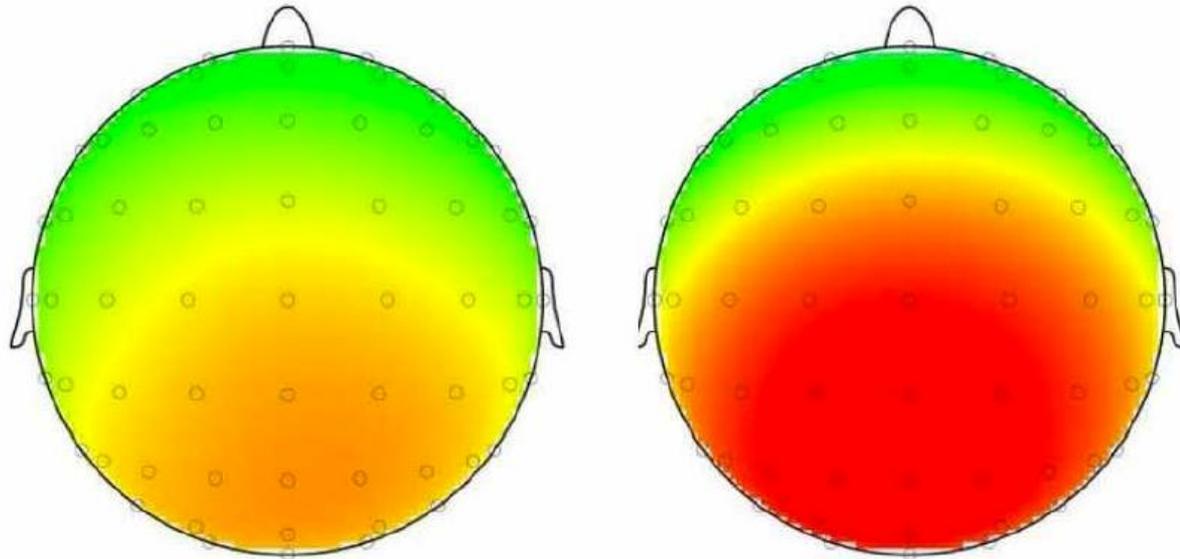
Fixed mindset

- Intelligence and personality are inherited and unchangeable
- Failure shows that you are incompetent
- The goal is to look good
- "You are so good at problem-solving!"



Fixed

Growth



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