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Danmarks nationale videncenter og arrangør af camps for unge sciencetalenter

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Talents in Denmark

-State of the Art?

Danmarks nationale videncenter og arrangør af camps for unge sciencetalenter

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Plan

Introduction

- The situation in Denmark
- Special programs/special schools
- What to do in the ordinary lessons?

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Gymnasium

- All schools: Large central projects: ATU, Science Talents, Young Scientists
- Many schools: Small local projects. Cooperation with primary schools

All schools work with talent

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Primary School

- Some Schools: local projects
- Few Schools: large project (Young Scientists, Junior)
- More private schools than public schools
- Talentcoordinators on less than 100 schools (out of 2000)

Schools have started working with talent (rapidly growing)

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Certificate in Science and Talent

17 gymnasium, 9 primary schools

- Talentcoordinator with certificate
- Participants in national competitions, national events
- Cooperation with gymnasium/primary schools; business, participants
- Local talent initiatives

2016 – first year

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Special schools?

Mixed results

- Some schools have closed again
- Some schools have had challenges with leadership
- All schools have battled with social challenges

Schools for the gifted? Schools for children with high IQ?

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In class/out of class

What works?

- In class advantages: no exclusion, easy to change groups. Disadvantages: Many students, not easy to do
- Out of class advantages: similar level, social factor. Disadvantages: Exclusion, not easy to do.

In class/out of class

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Lessons learned

(the most important slide of the day!)

- Large national projects make it less complicated
- The tides are turning, and the young people are often ahead
- If the solution was there in-class, skilled teachers would have done it all ready
- The social factor is a key component
- The social factor is a key component
- The social factor is a key component

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Discuss: Can we use this?

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Math – in class

Different ways

- Open problems
- Experimental Mathematics
- Se-Be-Fo-Be

In class – any how…

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Open problems

Open ends, open methods,

- Example: The couch problem

Many students tend to believe that math is a fixed science. That we know everything in mathematics, and that there is never any new stuff.

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Se-Be-Fo-Be

Se-Beskriv-Formaliser-Bevis

- Example I: when 11 times 11 is 121
- Example II: 1089

Idea: Remember to make conferences!

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XM-math

Let the students try themselves

- 15 times 15
- Find the best shape for canned tomatoes

https://www.uvmat.dk/XM/

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Discuss – will it work?