

Dyslexia in the chain of dropping out

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Linnea Breiling

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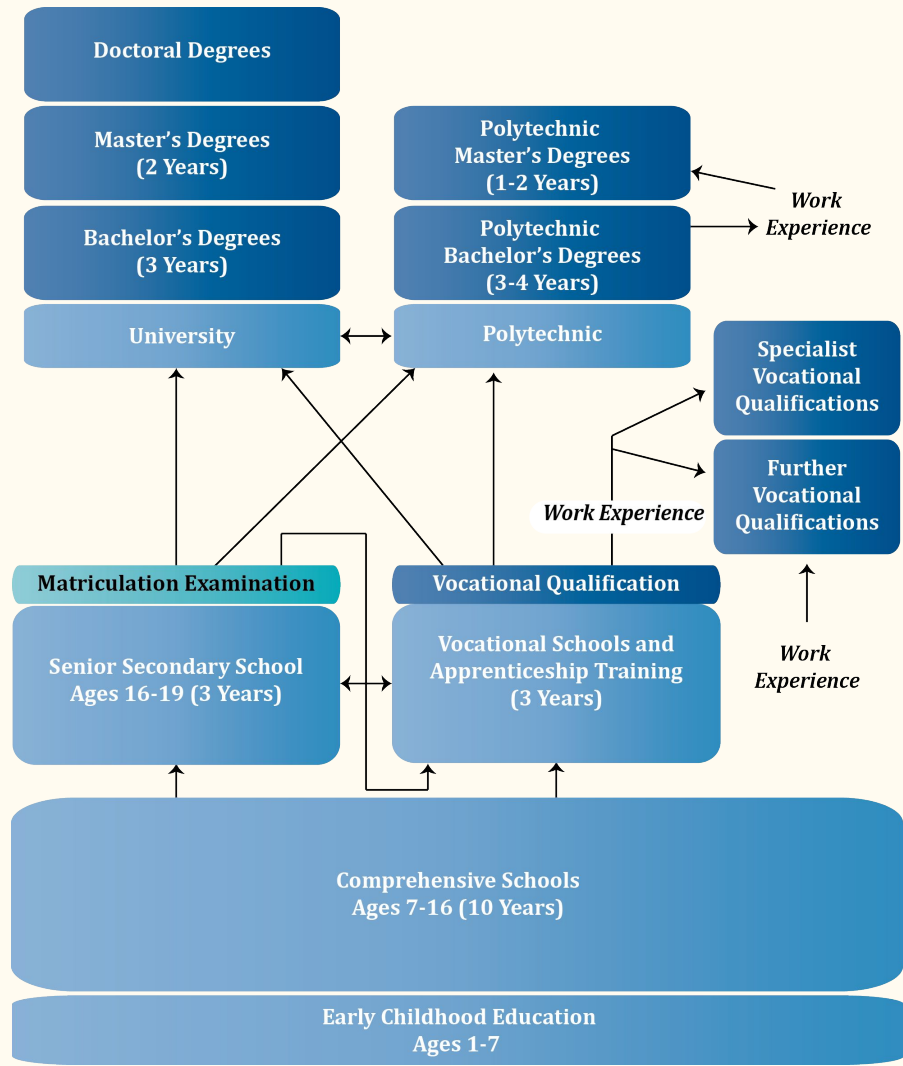
- Master of special education (University of Eastern Finland), Community educator (Humak university of applied sciences)
- Special class teacher classes 1-4 in the city of Helsinki
- English teacher for adults and Swedish teacher for students with learning difficulties.
- Project coordinator for supporting learning disabilities in a local organization “Joensuu areas special learners”

Today's topics

1. Finnish school system in a nutshell
2. Dyslexia and other learning disabilities
3. Having dyslexia - a risk of dropping out
4. Practises of supporting dyslexia in schools
5. Practises of supporting dyslexia outside of schools



1. THE FINNISH SCHOOL SYSTEM



- Inclusion
- Dropping out
- Exclusion

www.ncee.org

What makes finnish education so special?

- Equal opportunities for everyone
- National curriculum
- No dead ends
- Education is free of charge
- Average class size: 20 students
- Students take active roles in their learning process
- Welfare professionals work in schools
- Individual support, special education is integrated
- No “good” and “bad” schools, no ranking lists, no national tests
- Highly trained teachers, motivated teachers, teacher profession is appreciated

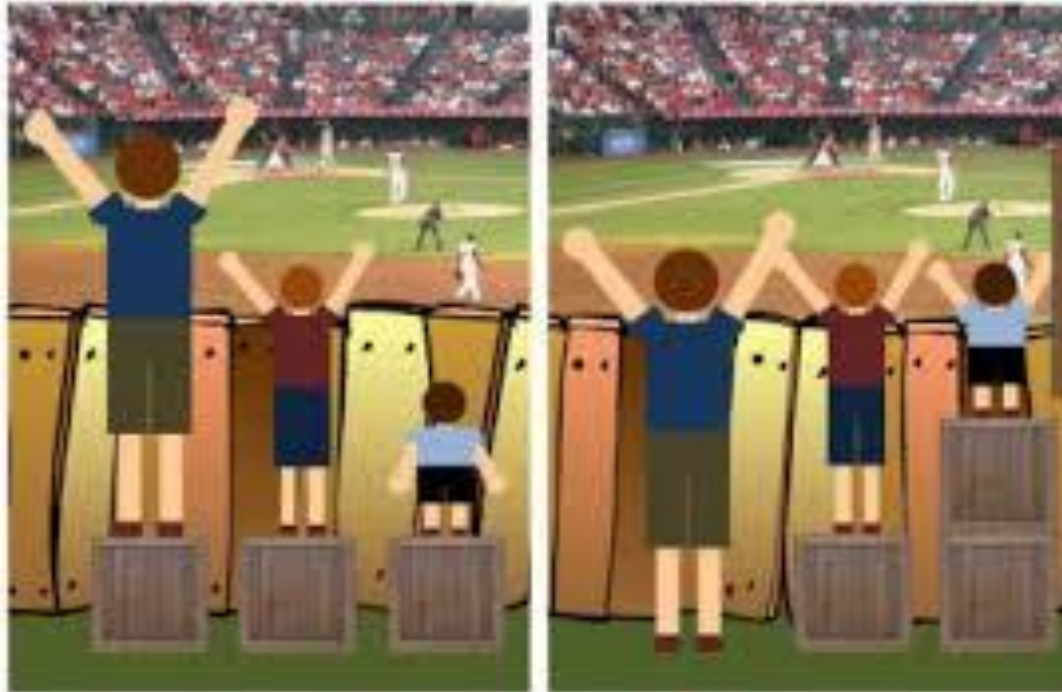


Principles for Finnish education



- Inclusive education, equal opportunities: removing barriers to learning, physical, attitudinal or pedagogical
- Early intervention and support
- Student and parent involvement
- Three levels of support: general, intensified and special support
- 20% of pupils in comprehensive school get intensified or special support and 9% in vocational schools
- 6% do not continue studying after comprehensive school

2. DYSLEXIA AND OTHER LEARNING DISABILITIES



Learning disabilities overlap.
Two of three prisoners have learning difficulties.

<https://www.businessdisabilityinternational.org/when-is-equality-not-equality/>

Learning disabilities

- About 20% have learning difficulties, 10% dyslexia.
 - Difficulties in remembering and learning new skills.
 - Learning is slower or needs other learning techniques.
 - Damage, dysfunction, developmental delay?
 - They are not diseases and not curable, learners learn to compensate, so the difficulties are not that visible.
- Reading and writing
 - Mathematics
 - Languages
 - Perceiving surroundings
 - Motorics
 - Attention and act

Pupils with special needs in Finland (2010)



- Dyslexia, dyscalculia, ADHD 11 254
- Learning disabilities related to disruption in language development 9 873
- Mild intellectual disabilities 7 542
- Brain dysfunction, physical impairment 7 344
- Social and emotional difficulties 5 894
- Intellectual disabilities 2 749
- Learning disabilities related to autism or Asperger's syndrome 1 382
- Hearing impairment 420
- Visual impairment 252

Dyslexia (International classification of Diseases and Health Related Problems, ICD-10)

- A cognitive disorder characterized by an impaired ability to **comprehend written and printed words or phrases** despite intact vision.
- This condition may be **developmental or acquired**. Developmental dyslexia is marked by reading achievement that falls substantially below that expected given the individual's chronological age, measured intelligence, and age-appropriate education.
- The disturbance in reading significantly interferes with academic achievement or with activities of daily living that require reading skills.

Dyslexia

- About 7-10% have dyslexia in Finland, not everyone is diagnosed.
- Dyslexia appears always individually, the appearance is a sum of different risk factors, such as the environment and genetics.
- Difficulties might be visible in the phonological process, consciousness and memory.



Dyslexia



Reading might be slow and difficult / fast and incorrect

Difficulties in finding the phonemic correspondence

Difficult to stay on the line

Letters, numbers might change places

Difficulties in remembering and understanding what you read

Difficulties in spelling

K or kk/ i or ii

b/d, t/d

Tuo/ tou, lukisitko/lukistiko, vaikeus/ vaikues

How does it feel like?



<http://geon.github.io/programming/2016/03/03/dsxyliea>



3. HAVING DYSLEXIA - A RISK OF DROPPING OUT

Learning disabilities

average 20%

reform school children in custody 40%

imprisoned 50-80%

Two of three prisoners have difficulties in reading and writing.

Comorbidity of learning disabilities

Learning difficulties are often overlapping.

The estimations are around 17-79%.

Boys have more often overlapping learning difficulties than girls.

Study: Opinpolku - Learning path

Airi Hakkarainen 2016



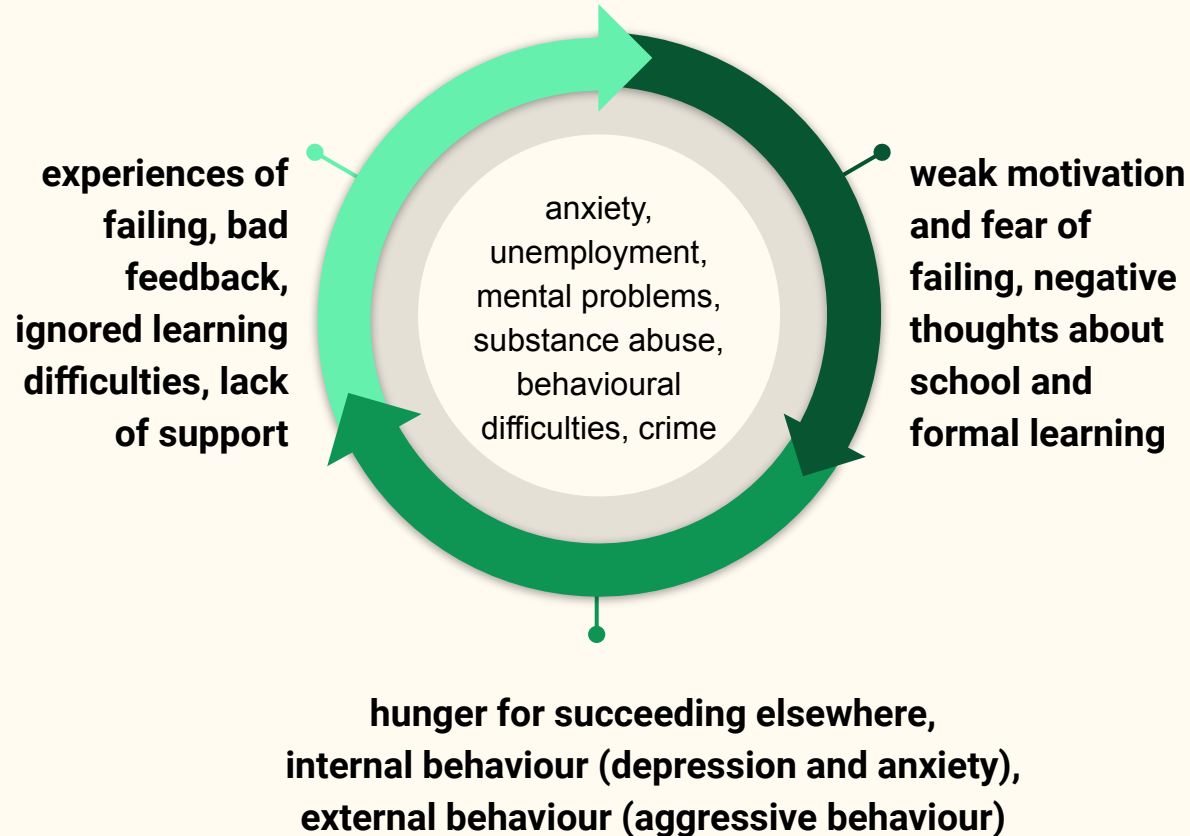
A large data collected since 2004 in eastern Finland. 2004 all 9th graders were tested for learning disabilities.

- 14% of all dropped out of schools. A third of these had mathematical difficulties and a fourth dyslexia.
- Learning disabilities seem to direct students towards vocational training and also expose them to school dropouts.
- Dyslexia connected to behavioural difficulties hold up graduating.
- Pupils with mathematical difficulties were most likely to be unemployed after 5 years of graduation from comprehensive school.
- Weak reading and writing skills lead three times more often to unemployment compared to those who do not have difficulties.

Effects of having learning disabilities

- Learners with learning difficulties have **weaker self-esteem**.
- Learning disabilities are often referred to **negative school experiences**.
- Learning difficulties have significant **connections in the pupils school path's**, school choices, succeeding, graduating and applying and getting into higher education and working life.
- Mathematical difficulties expose more to school dropouts than dyslexia. Dyslexia slows down the processes (gap years).
- In recent research has also been detected that dyslexia has **connections to depression, anxiety, stress and bullying**.

The negative circle



4. PRACTISES IN SCHOOLS



Early detection of learning difficulties

Learning disability tests in the beginning of school and in the transition phase from comprehensive school to second level schools

Early support and using learning aids

Special education

Make small goals which are easier to achieve

Using audiobooks, oral tests

Use color foils

Supporting school transfers.

School motivation starts from strengths. Positive attitude towards learning, motivation, emotional balance, early detection, special education help preventing dropouts.

Special education preventing dropouts

Early support is preventing school dropouts and exclusion

Keeping young people busy and learning life management skills.

Social engagement, participation

Feeling of belonging

Making decisions, children and families are involved in decision making

A person can be part of the group if he is allowed to make decisions.



SUPPORTING DYSLEXIA

Reading gets easier *with* reading

Be a SUPPORTING adult

Make *small* goals *that* are easier to achieve

Using AUDIOBOOKS, allow WRITING by speaking

Oral tests

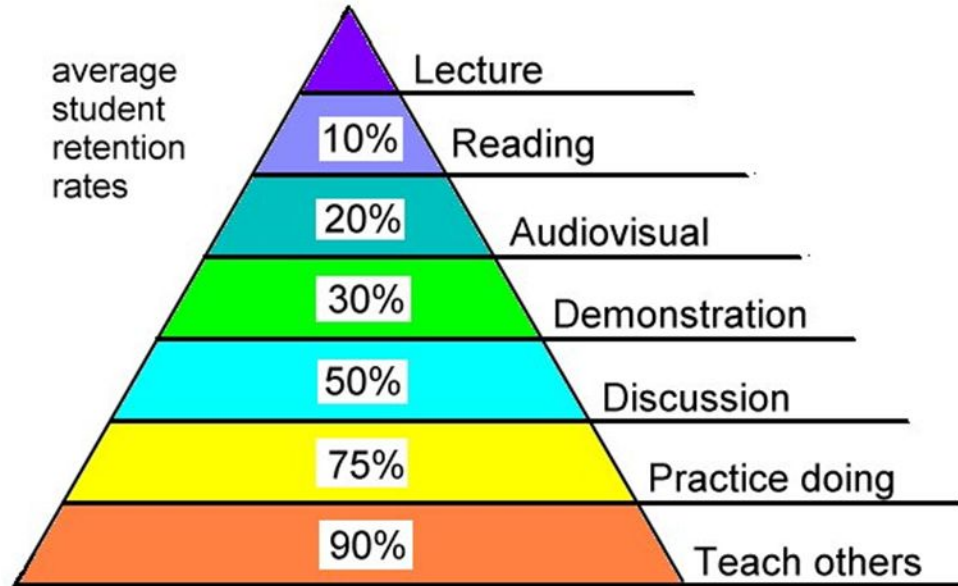
Use *color* foils

A font designed for dyslexic people:

<https://www.opendyslexic.org/>



Learning Pyramid



Source: National Training Laboratories, Bethel, Maine

Tips for learning

more time for exams and tasks

if not finished in school, not always
homework

repeating the instructions out loud
the possibility to have oral exams
audio books

reading in turns

Clear assignments

Learning aids for learning and exams

Remedial instruction and assistants

Clear materials

Use structures

Teach learning techniques

Divide the lessons into smaller parts;
varying tasks and sporty breaks

Minimize distraction

Accept a little movement

Motivate pupils to connect the theme
to the pupils own lives



Dyslexia

Phonemic awareness

Naming speed

Reading fluency

Reading comprehension

Phonemic awareness

Understanding that language consists of phonemes, words, sentences, meanings. Knowing that letters equate sounds

Early childhood, early education

Making rhymes, reading poems, playing with the language

Playing with words, changing letters

My ship is loaded with...,

word pairs, which words are almost similar: Mato, matto, cat, flat, cat cut

Naming speed

The child cannot find the word he/she is looking for

If the child has problems with naming, he is more likely to learn slow.

Practice

explaining words -games

practicing naming things in everyday life, such as in grocery store

giving exact instructions widens the vocabulary: take the blue sweater into the brown laundry basket upstairs

Reading fluency

Fast but incorrect reading is not fluent reading.

Fluency is only achieved by a lot of practice

- frequent reading
- repetitive reading

Reading out loud is more efficient than silent reading.

Focusing on spelling encourages the reading fluency, because similarities are easier found.

Reading speed

If the reader reads with his maximum speed, reading comprehension might increase.

If you want to concentrate on accuracy in reading, it is helpful to read slower.

Fast reading also helps with reading comprehension and helps with short term memory problems.

How to support reading fluency?

- all skills practised will eventually be automatised
- repetitive reading: reading the same text many times
- minute reading: same text is read many times one minute
- reading out loud every day
- pair reading
- reading syllables

What helps

different kinds of exercise

active role of the reader

an accurate level of difficulty

motivation

clear and immediate feedback

the adult's modelling/example how to read

remembering/reminding why reading is important

How to motivate?

accurate tasks that are challenging but achievable

feedback

feeling of control

focus

no need of self-protection, failing is not a threat

Reading comprehension

-Why is reading comprehension difficult?

Is the basic technique automatized?

Does the vocabulary enable understanding?

--> comprehension increases

Supporting reading comprehension

Use previous experiences and knowledge

Focus on looking for mainlines of the text

Support finding connections in the text and in real life

Support monitoring the child's own understanding

Support the growth of vocabulary

Short term memory can not be learned, but by focusing our brain is better in use.

Training tips:

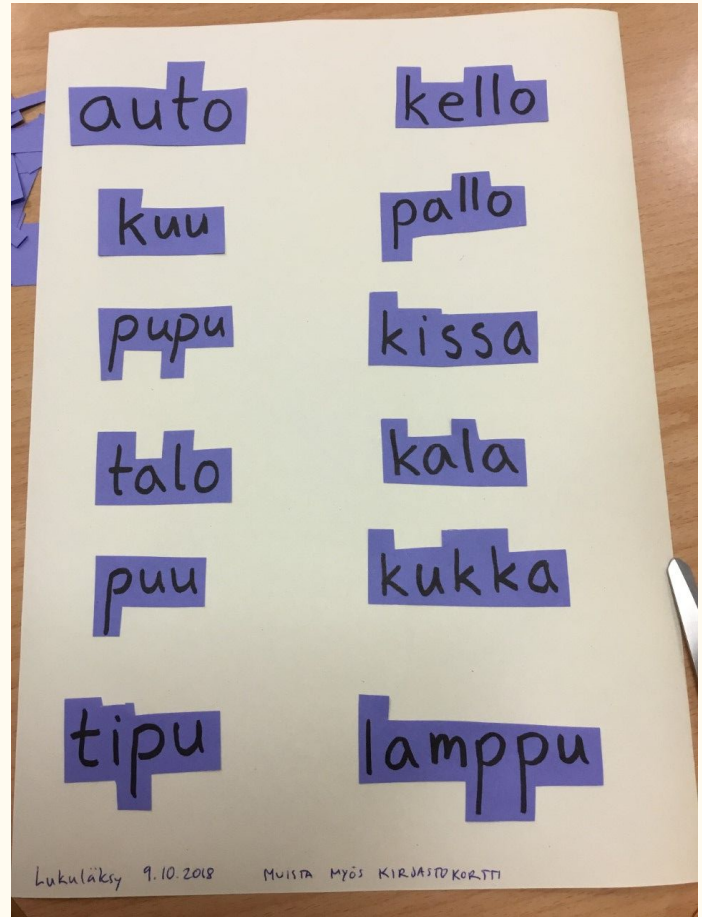
-teaching learning techniques and how texts are built

-summarizing texts with own words

-learners make their own questions

-new vocabulary is organized in mind maps

-group discussion



Minna 25, student

Difficulties:

reading is extremely slow

Support:

extra time in university exams

pink color foil/overlay help eyes to relax

listening to audiobooks from the national audio
book library

Jere 9, school kid

Difficulties:

Did not know how to read in the beginning of the school year.

Extremely slow reading.

Support:

Individual support, reading together with the teacher.

Ekapeli.

Foreign languages



The Finnish language has a strong connection between the letter and the phoneme.

In foreign languages it is not as consequent.

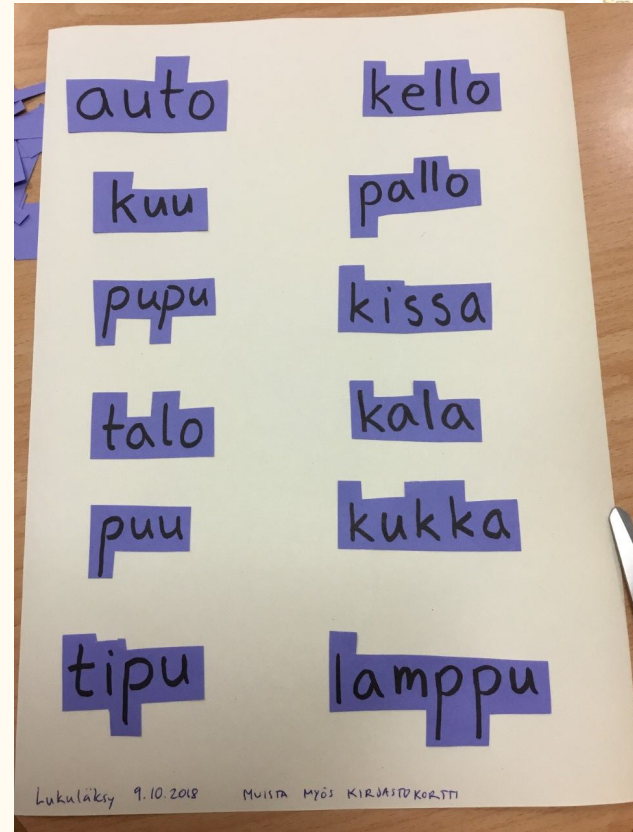
Prepositions and articles are the most difficult to learn for most.

Everything must not be understood.

Having the courage to try is the most important.

Supporting learning foreign languages

- Listen although you do not understand
- Come up with your crazy memory rules
- Talk spontaneously when you are all alone
- Come up with songs
- Read out loud, record and listen
- Craft, draw, color
- Word cards
- Explaining word games
- Take your word cards for a walk



Maria 9, school kid

Difficulties:

pronouncing
remembering how to
write

Support:

playing with the
language
English club
Quizlet
visualizing words

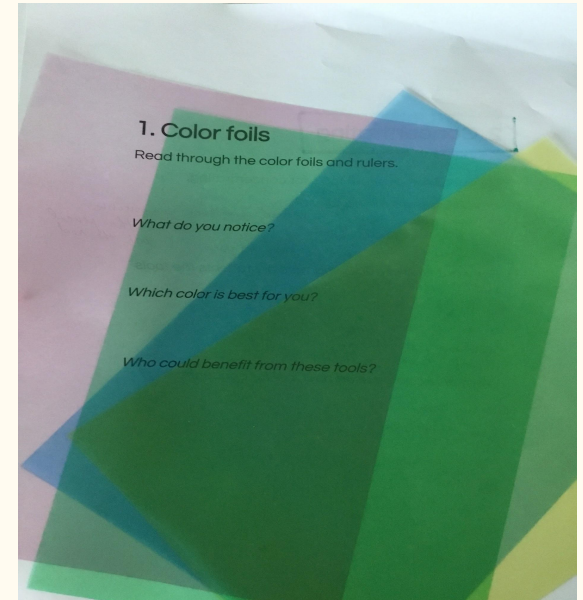
5. PRACTISES OUTSIDE OF SCHOOL

Ministry of social services and health and different organizations support purchasing learning aids.

Learning aids: tablets, color foils, apps that transform text into speech or speech into text.

Organizations: Dyslexia organizations support (counselling, training and courses) and provide information.

Every possibility to have a safe adult and possibilities to participate can prevent dropouts.





Jelppari-project 5/2016-10/2017

- Supports students in upper secondary, vocational training and higher education by offering extra support free of charge.
- Widen the knowledge about learning disabilities in schools
- Supports unemployed teachers' know-how and social reinforcement





JELPPARI-PROJECT

- 100 students
- Support for english, mathematics and writing of thesis.
→ Graduation, finished matriculation exams, passed tests and courses
- 33 teachers



Thank you!



linnea.breiling@hotmail.com

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