SCHOOL REBOLIND

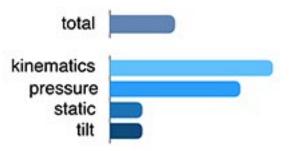
oping Dynamico, the application against handwrit	ting difficulties	Raphael D.	Score global	Moyen	
Copie le texte di-desaus: Arring Barrier Barri	Progress monitoring	Laura M.	47	L'enfant a quelques difficultés avec Lorem ipsum dolor sit amet, consectetur adipiscing elit.	
	Analysis in 30 seconds		Pression > Vitesse > Inclinaison > Évolution	27 50 71 46	

Marc, 8 y.o

fait tres beau je suis bien je vois de le

Patrick, 5 y.o

I fait très beau je sieblien je voide l'eau Mai je ne sai pas où elle va

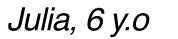


kinematics pressure static tilt

total

FOR THERAPISTS

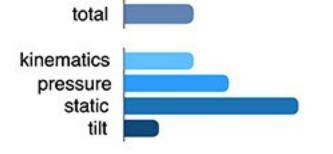


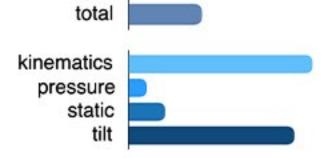




Stephanie, 7 y.o

tre ban Al Nos you may





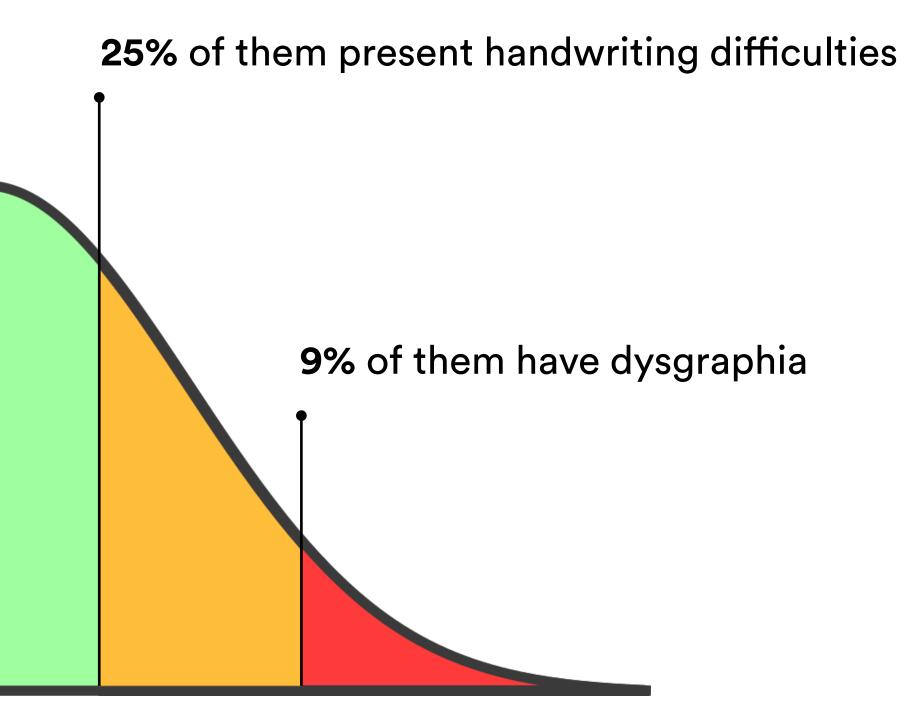
FOR SCHOOLS

FOR HOME

The market

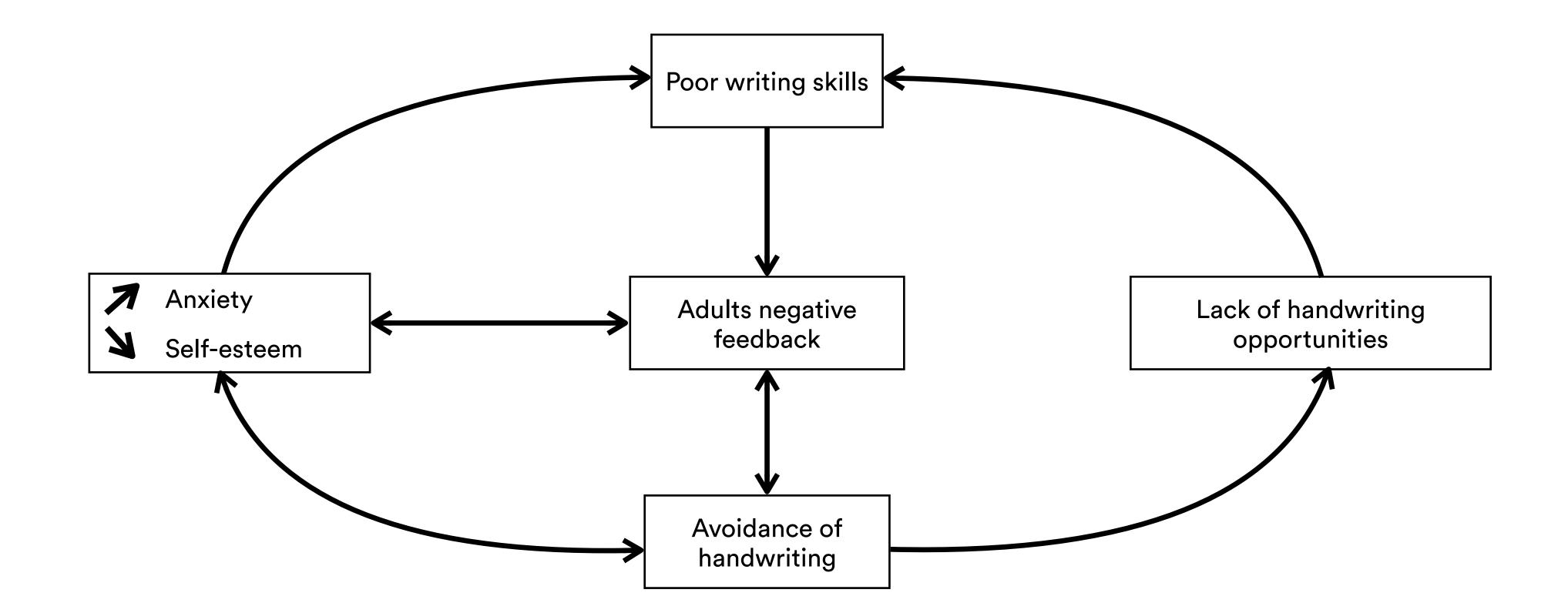


An application useful for the remediation but also for learning



What are handwriting difficulties?





Critical consequences on the child's school curriculum but also on his/her behaviour



How handwriting difficulties are detected?

Il fait très beau Je suis bien Je vois de l'eau Mai je ne sais fas où elle va.

The BHK test

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Current tests are full of limitations

A test that needs to be adapted in the era of digitalization



Subjectivity

Relies on human judgement.

Small (60%) interrater agreement.



Time-consuming

Takes 5 minutes for children to pass the test.

Takes 15 minutes to correct it.



Costly

Experts needs to be trained to acquire the expertise for grading.

Grading takes time.



Neglect informations

Test done on paper: All the dynamic, pressure and tilt characteristics of handwriting are not perceivable.

Handwriting analysis

EPFL

Digital tablets can capture previously unavailable characteristics such as kinematics, pressure or tilt





M

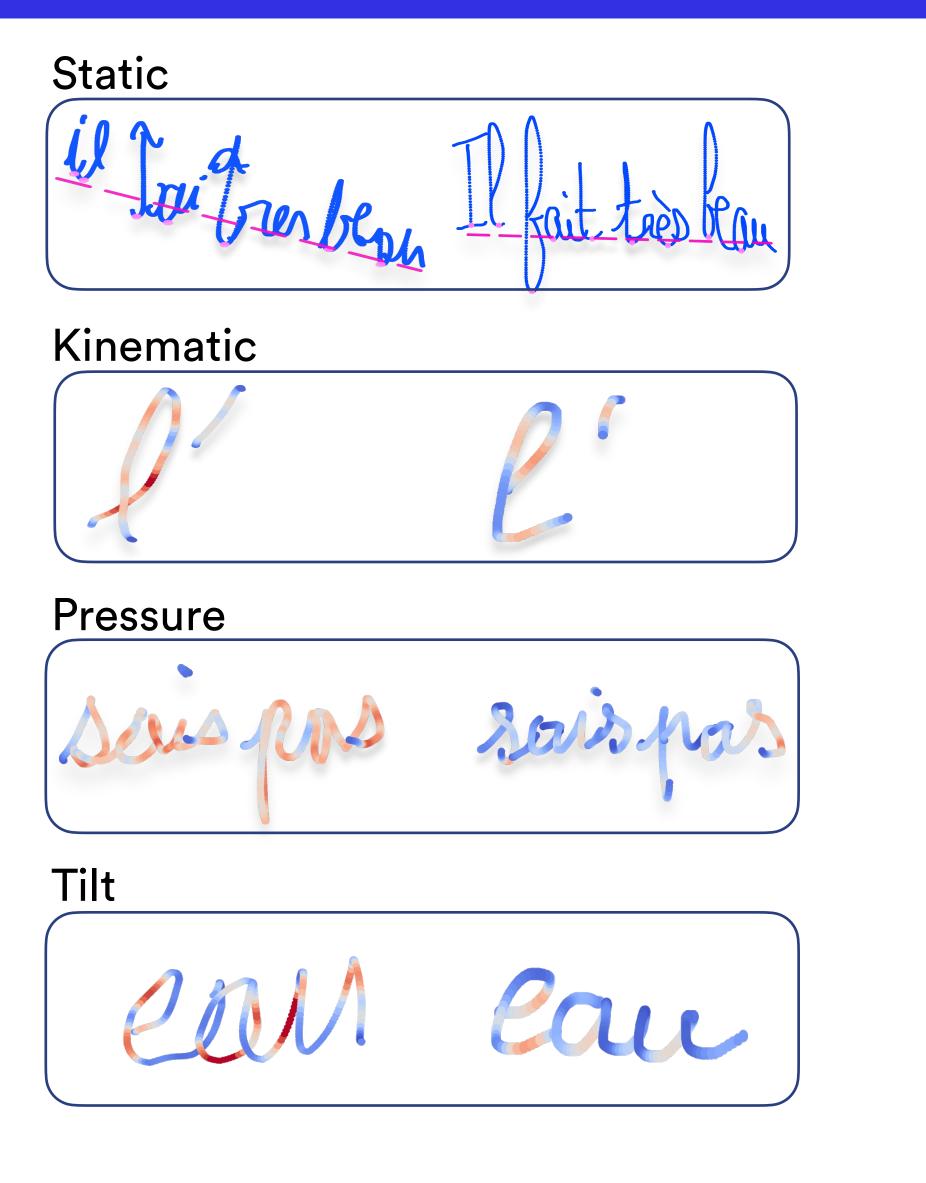
Dynamico - une tablette contre les dysgraphies

LE TEMPS Une tablette au secours des élèves qui peinent à écrire

nature research

nature research Asselborn et al., Automated human-level diagnosis of dysgraphia using a consumer tablet, 2019

Asselborn et al., Extending the spectrum of dysgraphia, a data driven strategy to estimate handwriting quality, 2020 $_{6}$



EPFL

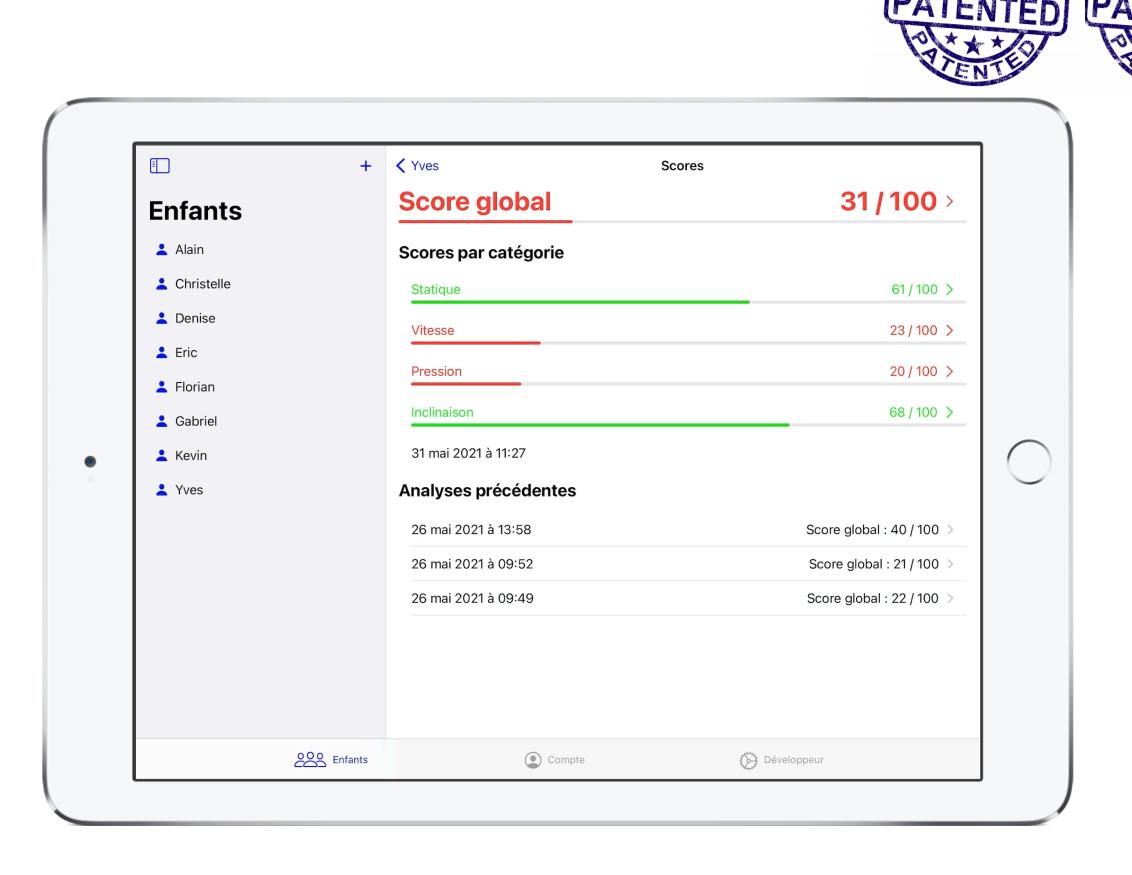
Analysis of handwriting difficulties

For a deeper, faster, multidimensional, more frequent, language-independent and more objective handwriting analysis

Yves X Copie le texte ci-dessous : 📥 ll fait très beau Je suis bien Je vois de l'eau Mais je ne sais pas où elle va. 圃 H fait très beau Je suis bien Je vois de l'eau Mais je ne

nature research nature research nature research

Asselborn et al., Automated human-level diagnosis of dysgraphia using a consumer tablet, 2019 Asselborn et al., The transferability of handwriting skills: from the Cyrillic to the Latin alphabet, 2020



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Asselborn et al., Extending the spectrum of dysgraphia, a data driven strategy to estimate handwriting quality, 2020
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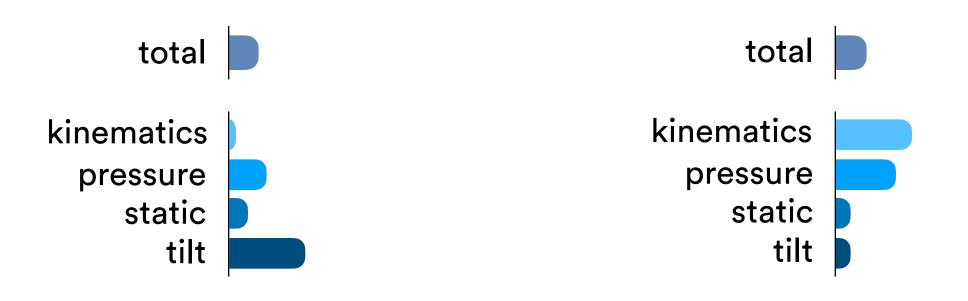
Analysis of handwriting difficulties

There are different varieties of handwriting difficulties!

Marc, 8 y.o

Patrick, 5 y.o

je vielbien je voi de l'eau Mai je ne sai pas où elle va

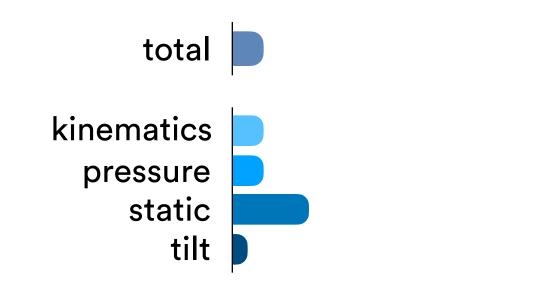


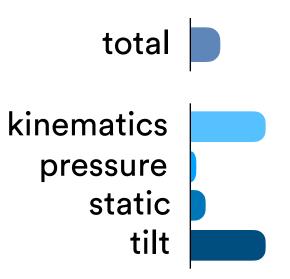


Asselborn et al., Extending the spectrum of dysgraphia, a data driven strategy to estimate handwriting quality, 2020

Julia, 6 y.o

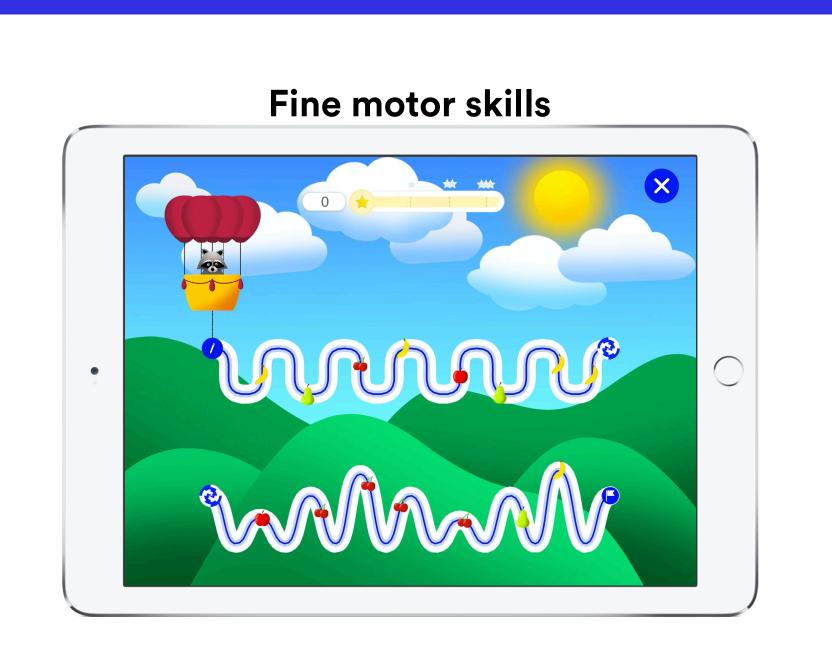
Stephanie, 7 y.o





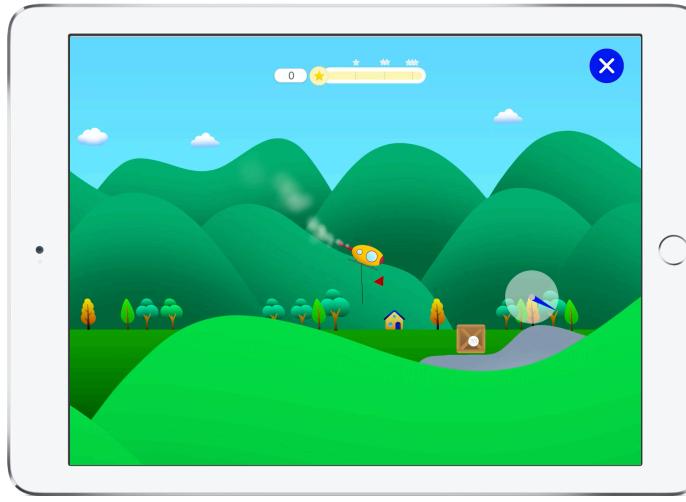


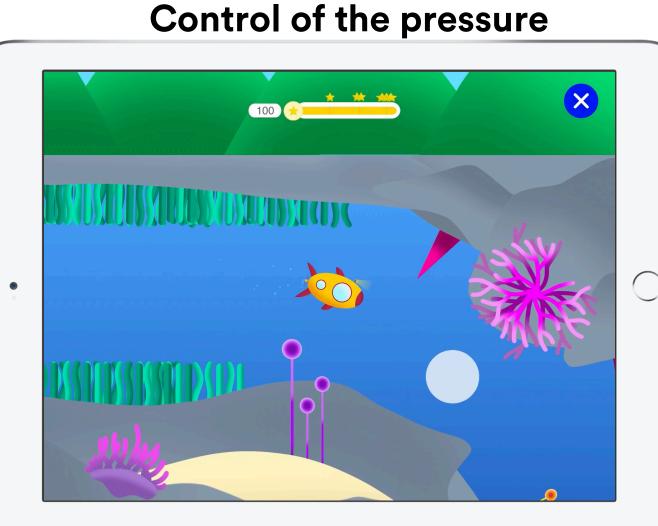
Remediation of handwriting difficulties



EPFL

Control of the tilt







Several adaptive and adapted remediation activities targeting specific handwriting weaknesses

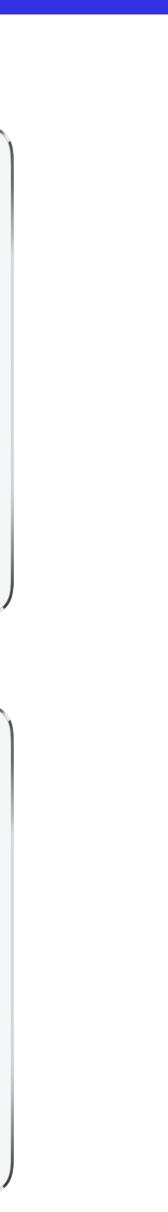
Le robot de Proust J'ai besoin de ton aide pour apprendre l'écriture. Montre-moi comment écrire avec ta plus belle écriture !

Finger dexterity

Letter shapes and pen lifts

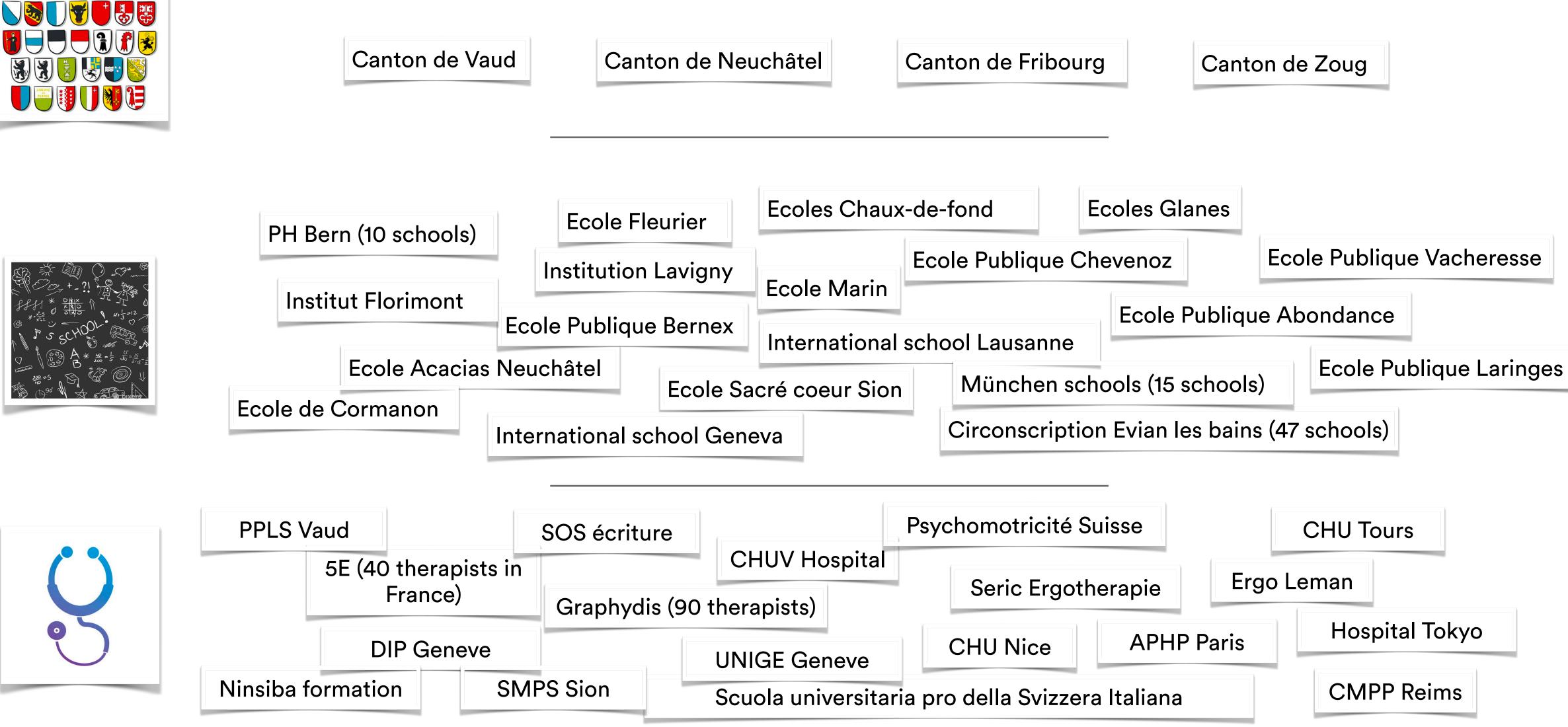


Handwriting automation





We are creating a community





If you want to test the application, you simply need

- An iPad with the Apple Pencil
- More info (www.dynamico.ch)

Link for the beta version

This link: https://go.epfl.ch/dynamico-test (lien a ouvrir dans un iPad)

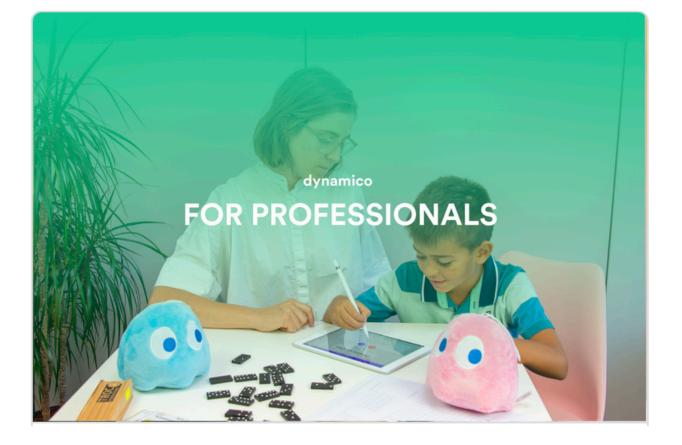


Thank you for your attention



Functionalities adapted to the segment <u>www.dynamico.ch</u>

689K private therapists*





Save time and energy with our analysis system and find out things that couldn't be seen with a paper and a pen.

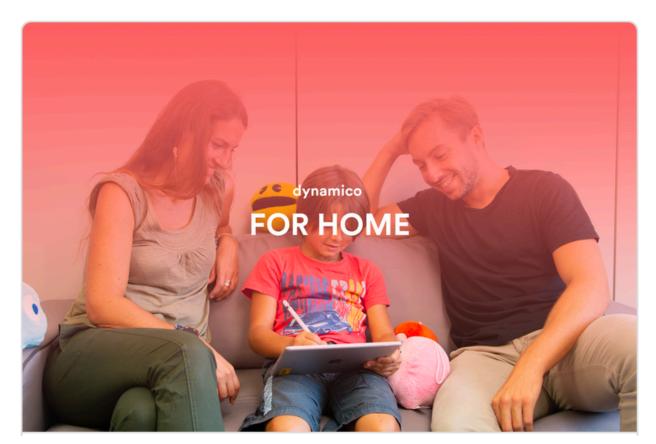
Prepare lessons, let children work autonomously on their weaknesses and monitor your students' progression.



Different versions of Dynamico

2.6M classes*

53,5M children in elementary school*



Children can practice handwriting at home with adapted games to work on their specific weaknesses.