



DIGILUKISEULA

[DIGILUKISEULA.NMI.FI/IN-ENGLISH/](https://digilukiseula.nmi.fi/in-english/)

A digital assessment instrument for reading and writing

Modernize the screening of reading and other key scholastic skills in your country!

Contact:

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Why?

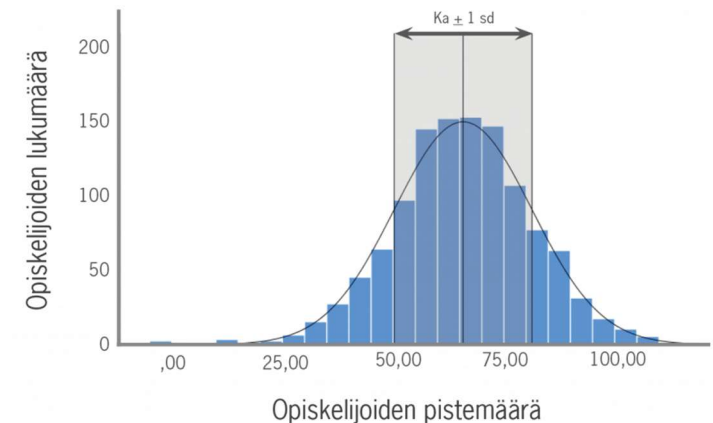
- Schools need to identify students with reading difficulties and provide them targeted support
- Traditional paper-and-pencil tests are laborious to organize, administer, score and manage
 - E.g. 4 days per 100 students with traditional paper-pencil testing
- Finnish teachers demanded NMI to develop a digital assessment service
 - Currently used in 80% of Finnish municipalities.
 - 650k assessments done in Finland, 150k annually, 20% growth rate, ~0% churn rate
- Follow regional reading achievements online – don't wait 4 years PISA results



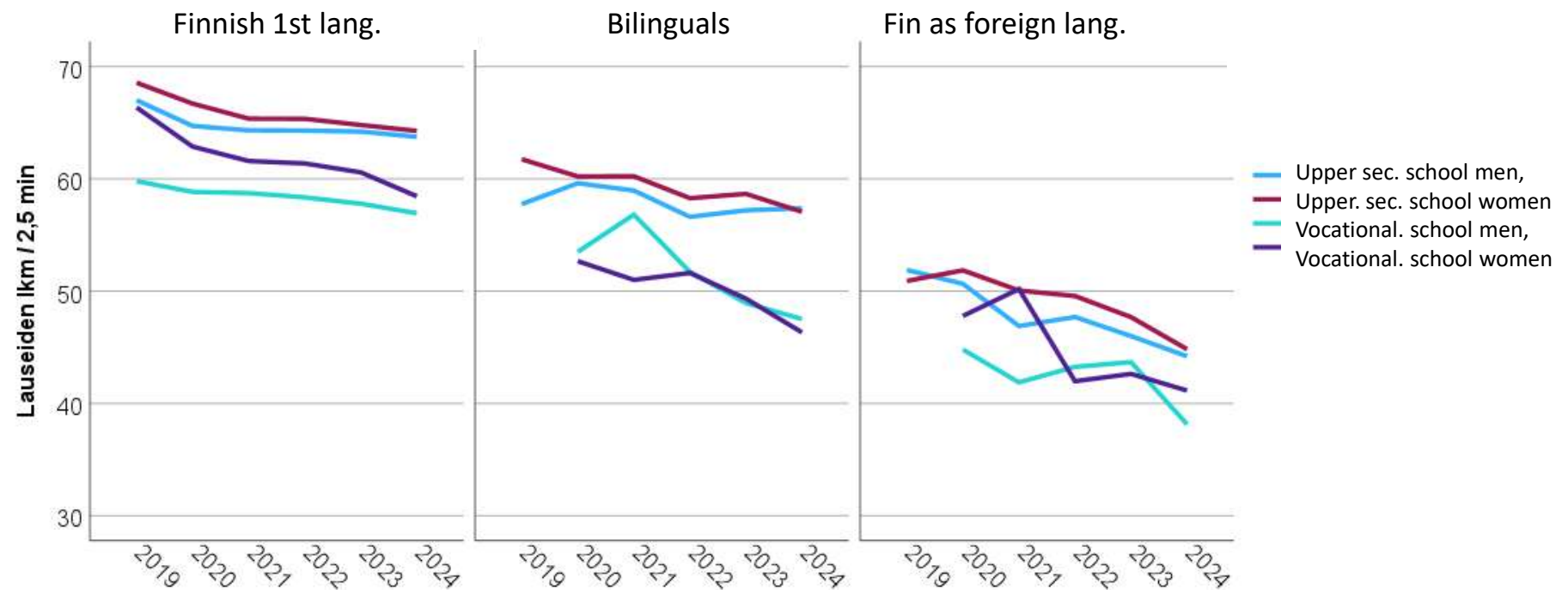
Our solution

<https://digilukiseula.nmi.fi/in-english/>

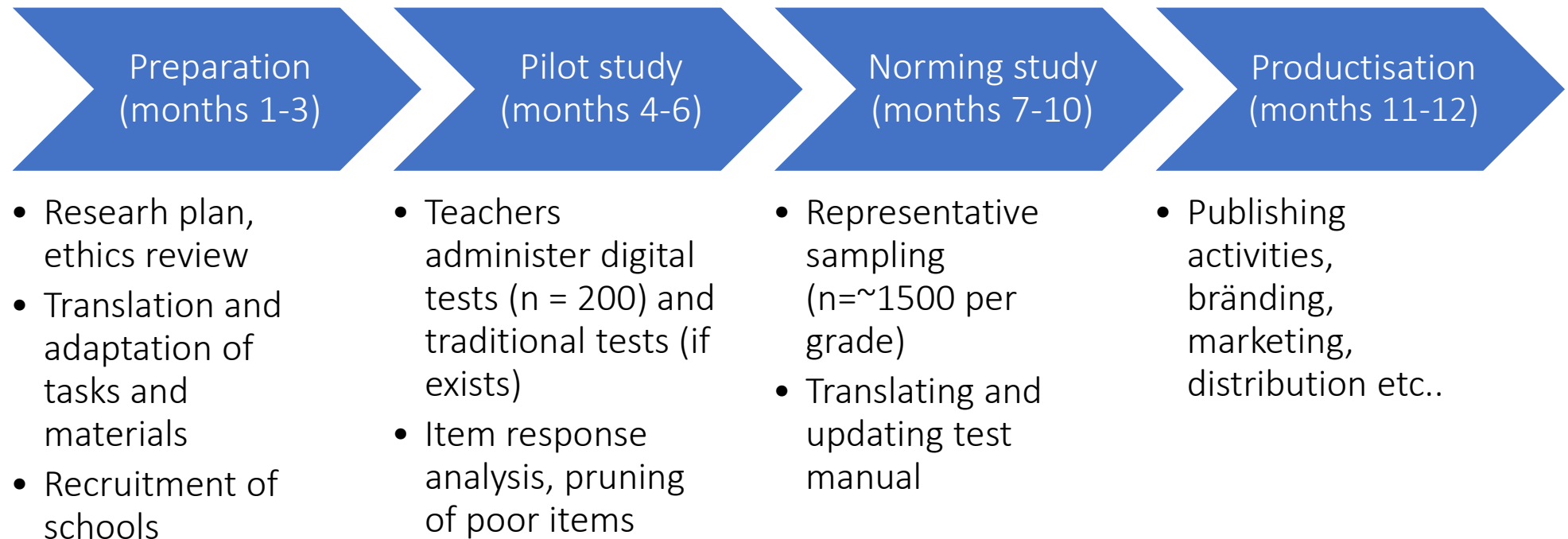
- Server-based digital assessment service:
 - Sentence reading fluency, word recognition, spelling, comprehension, math fluency, questionnaires
- Highly reliable and valid – stat analyses available in user manual
- Merchandising and user management via digital licences
- Teacher dashboard summarizes results and provides access to individual responses



Follow regional reading achievement online: Development of reading fluency in Finland



Timeline and resources for a localization process



Resources:

Minimum local team: master thesis student + supervisor, needed consultants (e.g. language, pedagogy, stats) & business partner

NMI consultation team: reading researcher, software developers, statistician

Evidence

International peer-reviewed research:

- Ronimus, M., Tolvanen, A., Hautala, J. (2022). The roles of motivation and engagement in computer-based assessment of children's reading comprehension. *Learning and Individual Differences*. <https://doi.org/10.1016/j.lindif.2022.102197>
- Hautala, J., Junttila, E. & Ronimus, M. (2022). Readers' theater projects for special education: A randomized controlled study. *Scandinavian Journal of Educational Research*. <https://doi.org/10.1080/00313831.2022.2042846>
- Li, S., Hautala, J., Pöysä-Tarhonen, J., Otieno-Leppänen, S., Häkkinen, P., & Leppänen, P. H. (2025). Exploring How Cognitive and Reading Skills Contribute to Collaborative Problem Solving. *The Journal of Experimental Education*, 1-22. <https://doi.org/10.1080/00220973.2025.2490018>
- Hautala, J., Hawelka, S. & Ronimus, M. (2023). An eye movement study on the mechanisms of reading fluency development. *Cognitive Development*. <https://doi.org/10.1016/j.cogdev.2023.101395>

Finnish peer reviewed research:

- Hautala, J., Ronimus, M., Junttila, E., Kullberg, N., Eräpuro, K., Viirret, T. L., & Lintunen, J. (2020). Onko lukuteatteri tehokas tapa harjoitella lukemista? Pilottitutkimuksen tuloksia ReadDrama-hankkeesta. *Niilo Mäki Bulletin*, 30 (1), 62-77. <https://bulletin.nmi.fi/wp-content/uploads/2020/04/Hautala-ym.pdf>
- Heikkilä, R., Korpivaara, P. & Niskakoski, M. (2023). DigiLukiseulassa yhdistyvät tutkimustieto ja käyttäjälähtöisyys. *Niilo Mäki Bulletin*, 33(3). https://digilukiseula.nmi.fi/wp-content/uploads/2023/11/Bulletin_3_2023_s66-76-1.pdf

Niilo Mäki Institute's publications (in Finnish):

- Hautala, J., Niskakoski, M., Westerholm, J. & Latvala, J-M. (2023). Niilo Mäki Instituutin DigiLukiseulan Luki-indeksi: Toisen asteen aloittavien opiskelijoiden perusluku- ja oikeinkirjoitustaitojen kehitys vuosina 2019–2022 Niilo Mäki Instituutin julkaisuja. <https://digilukiseula.nmi.fi/wp-content/uploads/2023/10/DLS-raportti.pdf>
- Heikkilä, R., Korpivaara P., Kettunen, A., Shenouda Khalil, K., Ryssy, J., Stylman, E., Westerholm, J., Hautala, J. & Niskakoski, M. (2023). AKI – Alakoulun DigiLukiseula. Luku- ja kirjoitustaidon sähköiset tuen tarpeen tunnistamisen välineet luokille 1–6. Niilo Mäki Instituutti. <https://digilukiseula.nmi.fi/alakoulun-digilukiseula/>
- Niskakoski, M., Määttä, S., Korpivaara, P. & Westerholm, J. (2021). Yläkoulun DigiLukiseula. Digitaalinen luku- ja kirjoitustaidon arviointimenetelmä 7. ja 8. –luokkalaisille. Niilo Mäki Instituutti. <https://digilukiseula.nmi.fi/ylakoulun-digilukiseula/>
- Paananen, M., Pöyliö, H., Määttä, S., Hautala, J., Eklund, K., Kinnunen, M., Westerholm, J. & Holopainen, L. (2019). DigiLukiseula – digitaalinen luku- ja kirjoitustaidon arviointimenetelmä nuorille ja aikuisille. Niilo Mäki Instituutin verkkojulkaisu: <https://digilukiseula.nmi.fi/>

Certifications

- Approved test for dyslexia statement by the Finnish Council of Matriculation Examination
- Application under review for Unicef Learning Cabinet

Interested to develop reading (or other skill) screening service in your country and language?

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