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A platform with multilingual digital picture books to promote book-sharing in families: first results

Contribution to an SRCO symposium "The potential of digital media for word learning among educationally at risk preschoolers," chair: Susan B. Neuman (New York University), Salt Lake City, March 24, 2023

FILIORUM Senter for
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Who might benefit from a platform featuring digital picture books?

- Families who have difficulty finding appropriate picture books for their children in a familiar language.
- Parents who face challenges reading to their kids and favor digital books with multimedia capabilities that allow their children to read autonomously.
- We are optimistic about the potential of digital libraries as a solution to these challenges
- and are actively investigating the creation and implementation of such platforms.

Establishing a platform that is accessible to everyone and caters to various languages and cultures also presents challenges

- There are copyright issues.
- For books to captivate children between the ages of 3 and 5, they ought to include recognizable themes, avoid imparting adult morals, stay grounded in reality, and so on.
- The books should be suitable for both shared and independent reading, with multimedia elements being necessary for the latter.
- However, finding books that are suitable for multimedia use can be challenging (f.i. the pictures must have enough detail for zooming in).
- Additionally, books can become too complex for young and inexperienced readers, which is why it is important to have the ability to adapt books to their level of comprehension or assist them in selecting appropriate books.
- Lastly, translations must accurately convey the plot.

Trying digital platforms

- In an initial study, we assessed the impact of a digital platform offering picture books in multiple languages on reading habits of bilingual preschool children and the vocabulary development.
- 41 participants aged 4-5 years,
- whose parents worked in service industries like cleaning, construction, and home care.
- At least one parent in each family spoke Turkish, Tamazight, or Arabic.
- The environmental language is Dutch.
- The families had limited access to books in their heritage language.

Parents received a link to a platform containing ten captivating picture books via their child's school

The screenshot shows a web browser window with the following elements:

- Address Bar:** https://www.dropbox.com/sc/f1zfoj8mbkizbtzyybhgk8/Research_portal_10_multilingual_picture_books.mp4?dl=0&oref=e8r-ABjwCY8rC8gzONk4frFY_-w4ZYFOBQ7Y6b20ld06zUlgM3H1sQ15_vicSKUMR96Q-VsoQ-4HFWYMJ-UFeCQ-IES0BC9kZujAOSz2z5utJpddzK4j6Y6VBHypubigk0Tj9wMxBSX8r8UMo5AHHAHAa-bnhC...
- Page Title:** Research_portal_10_multilingual_picture_books.mp4
- Content Area:**
 - Card 1:** **Bolder en de boot** by Alice Hoogstad, Uitgeverij Pimento. Includes a play button icon.
 - Card 2:** **Lieve Lieve** by Milja Praagman, Uitgeverij Terra Lannoo. Includes a play button icon.
 - Card 3:** **Met opa op de fiets** by Stefan Boonen en Marja Meijer, Clavis Books. Includes a play button icon.
- Buttons and Elements:**
 - A blue button labeled "voor ouders" (for parents).
 - A vertical stack of three circular icons representing flags: the flag of Ukraine, the flag of Turkey, and the flag of the Netherlands.
 - A share icon in the top right corner.
- Browser Interface:** Includes a "Cookie Preferences" button in the bottom left and a Windows taskbar at the bottom with system information (11°C Straks regen, 15:52, 21/10/2021).

Users can select a book by clicking on the blue circle and switch language by clicking on a flag

Research_portal_10_multilingual_picture_books.mp4

Meertalige digitale prentenboeken Onderzoek Sardes

Kleine Kangoeroe
Guido van Genechten,
Clavis Books

Tim op de Tegels
Tjibbe Veldkamp en Kees de Boer,
Uitgeverij van Goor

De Olifant en de Krokodil

voor ouders

0:13 / 0:38

Cookie Preferences

Once the Turkish flag is selected, the titles will appear in Turkish, and the story will be narrated in Turkish

The screenshot displays a web browser window with a video player. The video content shows a children's book interface in Turkish. The interface features three book cards, each with a play button icon:

- Büyükbabanın Bisikletinde**
Stefan Boonen en Marja Meijer, Clavis Books
- Taklitçiler**
Tijbbe Veldkamp en Kees de Boer, Uitgeverij Terra Lannoo
- Sevgili Yaramaz Ayrı Babun**
Bette Westera,

A blue button labeled "voor ouders" (for parents) is positioned to the right of the book cards. At the bottom right, there are three circular icons representing different flags: the Dutch flag, the Turkish flag, and another flag. The video player's progress bar indicates the video is at 0:20 / 0:38. The browser's address bar shows a Dropbox link.

Upon selecting the Arabic flag, the reading direction is adjusted accordingly

Research_portal_10_multilingual_picture_books.mp4

Meertalige digitale prentenboeken Onderzoek Sardes

voor ouders

الكنغورو الصغير
Guido van Genechten
Clavis Books

حسن على الرصيف
Tjibbe Veldkamp en Kees de Boer
Uitgeverij van Goor

الفيل والتمساج
Max Melhuus
Uitgeverij Leopold

0:26 / 0:28

Cookie Preferences

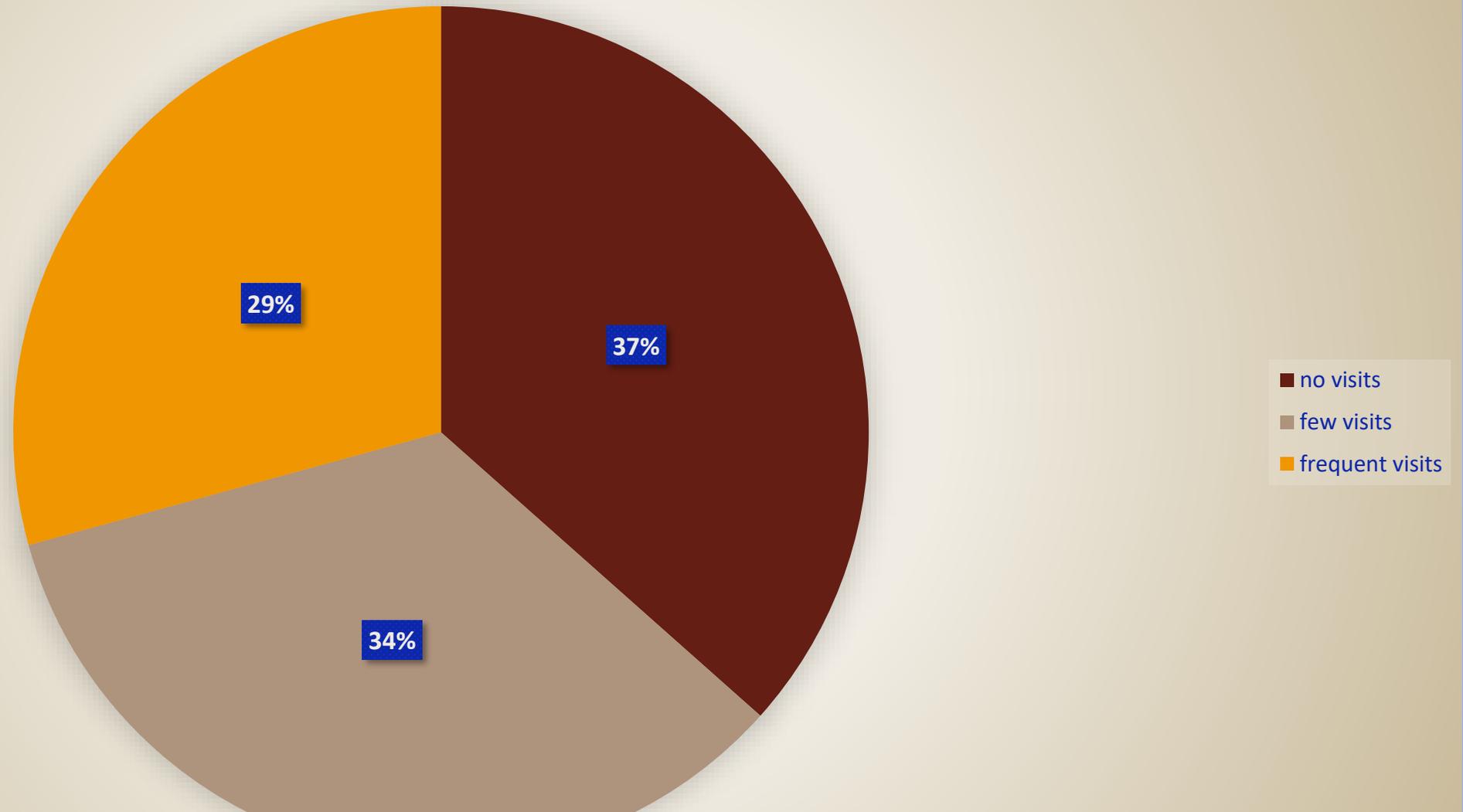
How we proceeded

- Parents were provided with a link to the platform through the school. They were instructed on how to switch between languages.
- Parents were encouraged to read the stories together with their children or promote independent reading.
- The platform was accessible for six weeks and automatically tracked the selected books, preferred language, duration of each book, and which days the link was opened.

Does access to books in the family's heritage language encourage reading outside of school hours?

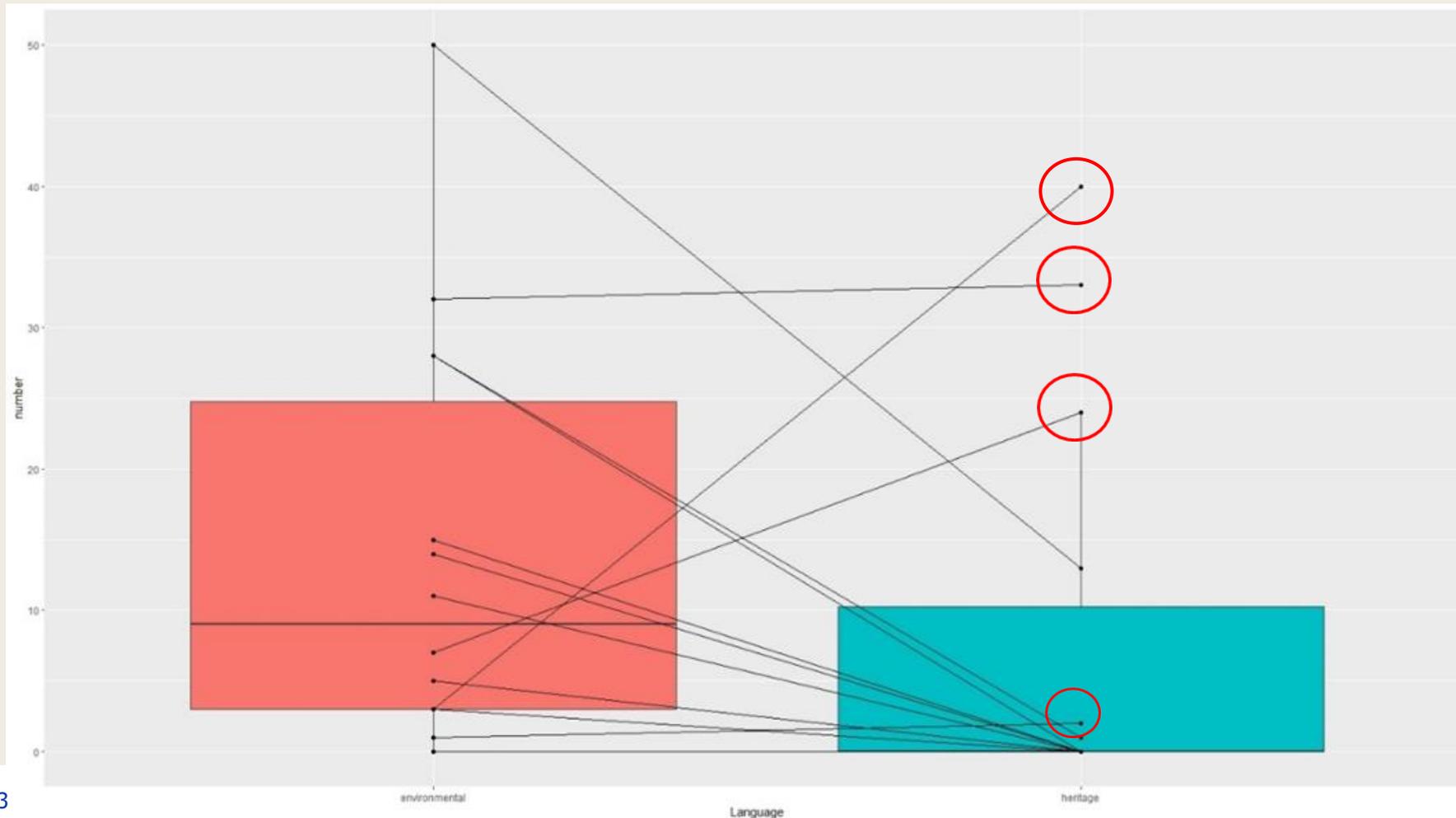
- Experimental design: All participants had access to Dutch while only half of them had also access to the heritage language.
- It was anticipated that providing access to heritage language books would boost book reading
- But the outcomes did not corroborate the hypothesis that access to books in the heritage language encouraged book reading.

Visits to the platform



Few visits: median 7 books; range: 1-20 *Frequent visits:* median 38 books; range: 21-290

Which language did the participants choose if they had a choice ?

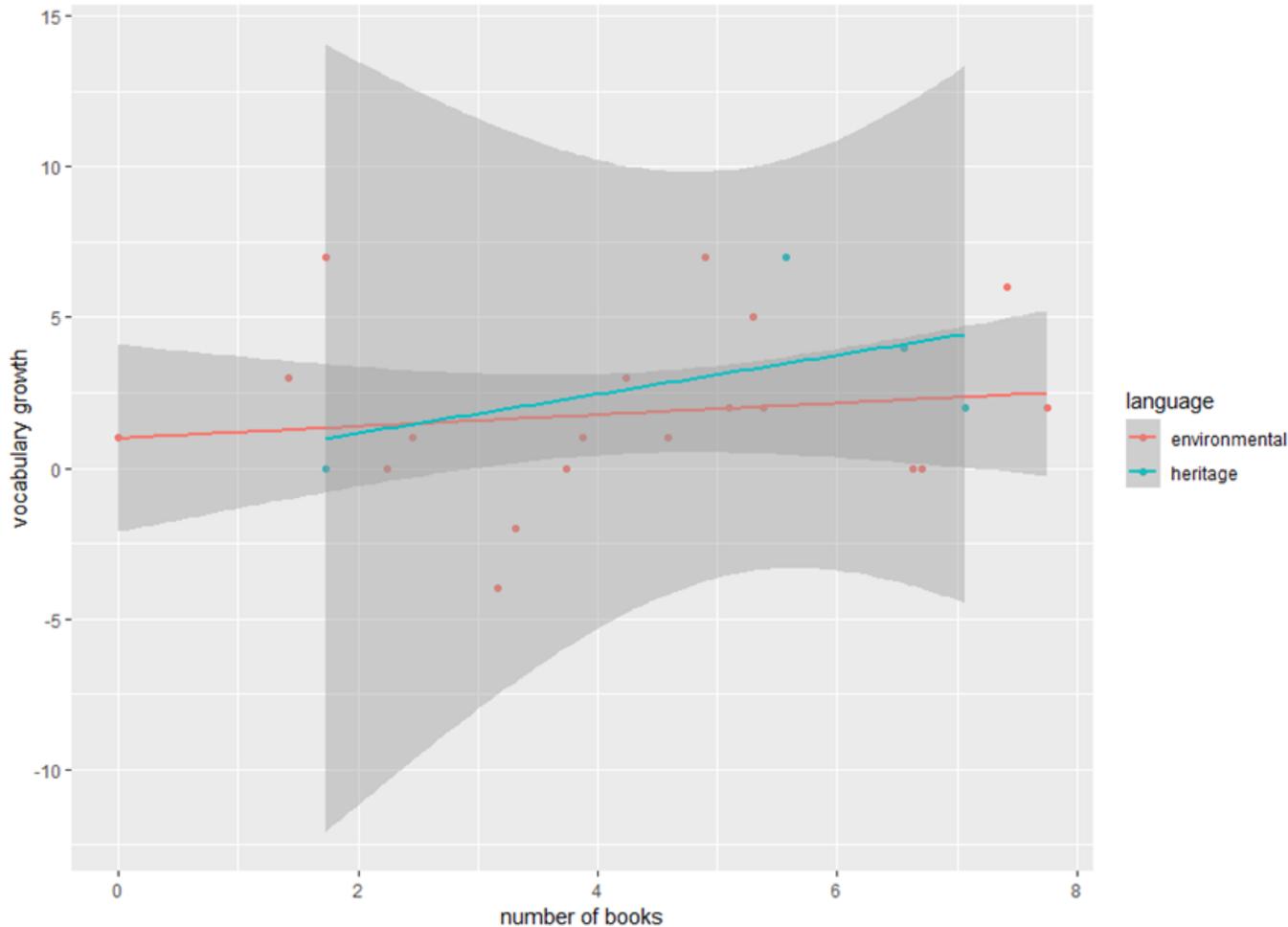


four children (33%)
showed a preference
for reading in their
heritage language

Upon conducting interviews with the children,

- Some children mentioned feeling more comfortable with the language spoken in their environment, even though they grew up in a bilingual household. For example, one child stated, "I prefer Dutch over my mom's language. I understand Dutch better."
- Parents also expressed actively encouraging their children to read in Dutch, as it is the language used in school. One mother explained, "It's important for my son to hear stories in Dutch because he speaks a lot of Tamazight at home. His father only speaks Tamazight, so I always choose the Dutch version, even if the Tamazight version is available. I want him to learn Dutch. I don't want him to speak Tamazight."
- Some parents expressed a desire for their children to learn their heritage language and were enthusiastic about the platform offering books in that language.

Is there a correlation between the number of books read and language development?



- The children underwent individual vocabulary tests before and after the six-week intervention,
- and we used linear regression to investigate the connection between language development and the total number of books.
- Overall, there was a 12% boost in vocabulary growth associated with a higher number of books.
- The impact was particularly noticeable among the group who had a preference for their heritage language.

A multilingual digital platform can play a crucial role

- A significant number of participants, roughly one-third, displayed noteworthy involvement with the digital platform by reading a substantial amount of books at their homes, and this was associated with an improvement in vocabulary learning.
- Additionally, a substantial proportion of the children, approximately 33%, read books frequently in their family's heritage language, and the majority of them read extensively, suggesting that they found it enjoyable. Therefore, it is crucial to ensure access to books in their heritage language.

Possible reasons for low usage of the platform

- The books' complexity level could have caused many participants to stop visiting after a few tries. The least complex book "Little Kangaroo" was the most frequently revisited, suggesting the importance of story complexity.
- It might be unrealistic to expect young children to develop a habit of independent reading.
According to interviews with the children, the majority either read independently or with a sibling, with only a few instances of parental participation.

Extensive data is being collected by the SPrELL project in Stavanger, Norway

- The digital library consists of 20 digital books that are available in Norwegian, Lithuanian, Polish, and Arabic
- These books include minor multimedia enhancements along with a voice-over



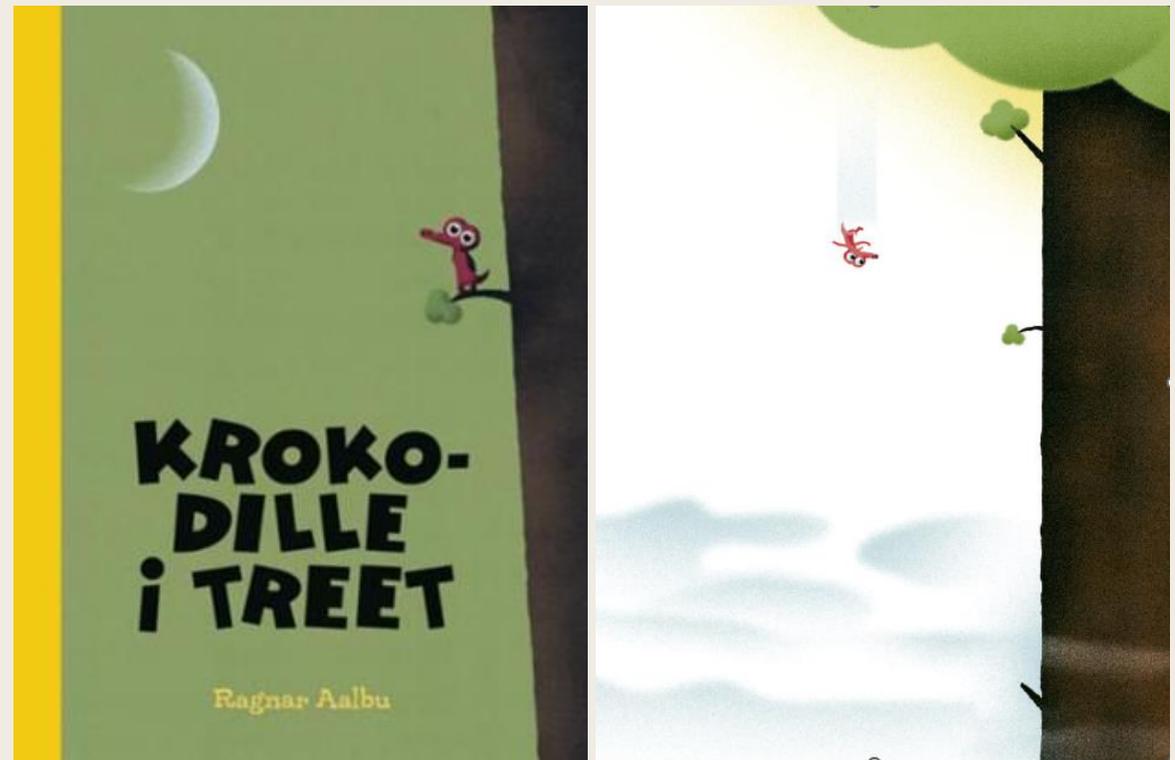
The selection of books was based on the following criteria:

- Relevance to a diverse group of children
- Stories that avoid moralizing and adopt the children's perspective
- Literary merit
- Characters that are engaging and come to life
- Stories that create tension in the reader
- Illustrations that are as significant as the text, and together form a cohesive aesthetic (iconotext)
- Illustrations that may enhance, expand, or complement the written text

The primary objective of SPrELL is to...

test whether reading books in one's heritage language at home and in Norwegian at school can aid in understanding stories

and enhance language (vocabulary) skills in Norwegian – the language of teaching



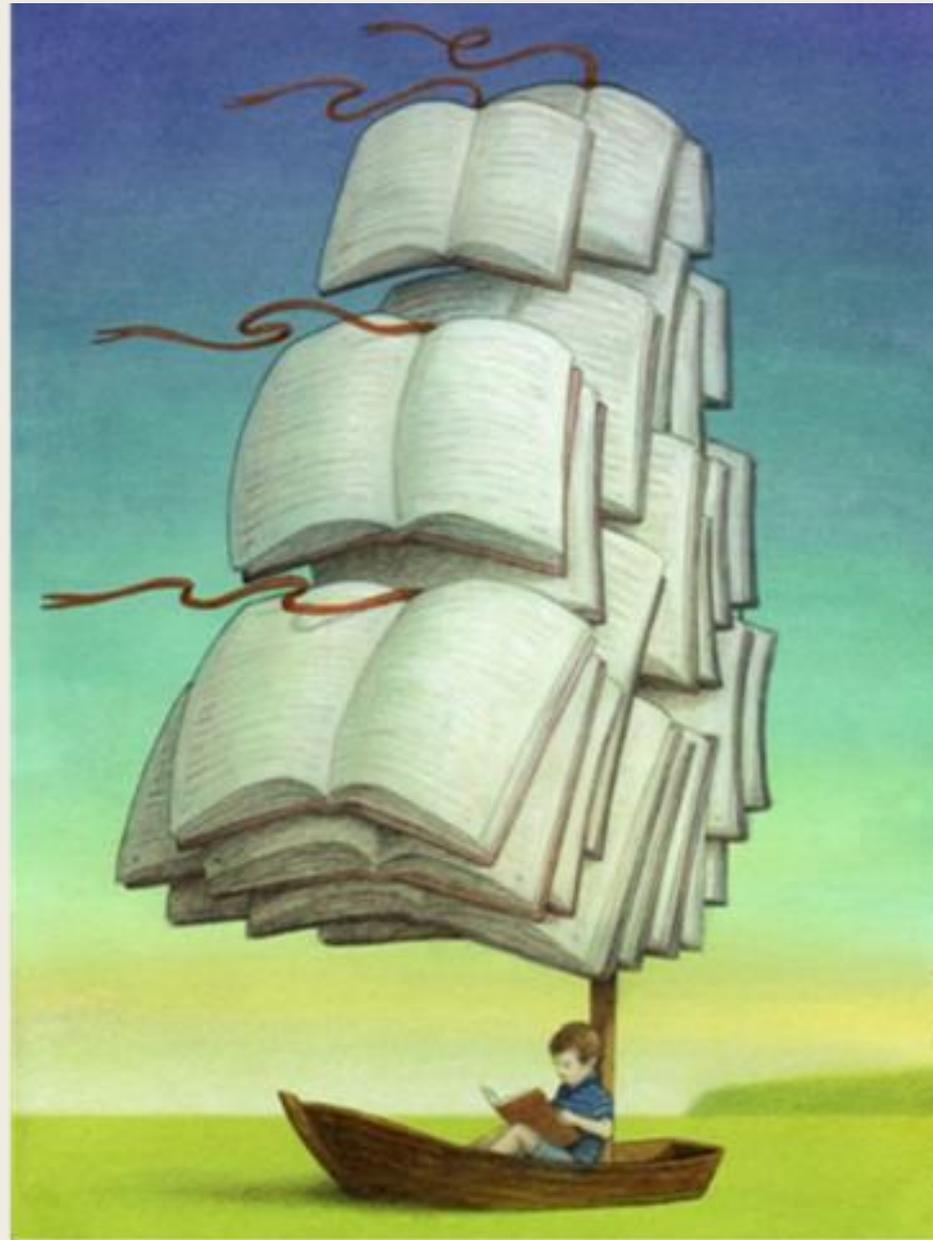
SAYL

Stimulating Adventures in Young Learners,

A European project in
Norway, Germany, the
Netherlands, Malta, and
Turkey



Erasmus+



SAYL aims at

- A platform with 15 picture books made available in major languages such as English, German, Russian, Turkish, and Italian, as well as lesser-known languages including Dutch, Norwegian, Maltese, Tamazight, Arabic, Sami, and Ukrainian.
- The books will include multimedia features to aid in comprehension and engagement.
- The creation of this open-access platform sparks numerous inquiries, including whether it fosters the habit of reading books and if offering literature in a family's heritage language enhances parental engagement. Moreover, there is an anticipation that the digital platform may serve cooperation between early childhood education and families.



<https://www.uis.no/en/SAYL>