NEES
NÚCLEO DE EXCELÊNCIA EM TECNOLOGIAS SOCIAIS

APA

Personalized Learning Monitoring

A mobile application using artificial intelligence to enhance writing skills of basic education students.

The tool allows for the correction and pedagogical diagnosis of handwritten texts. Students' essays are obtained from paper sheets with QR codes and markings.
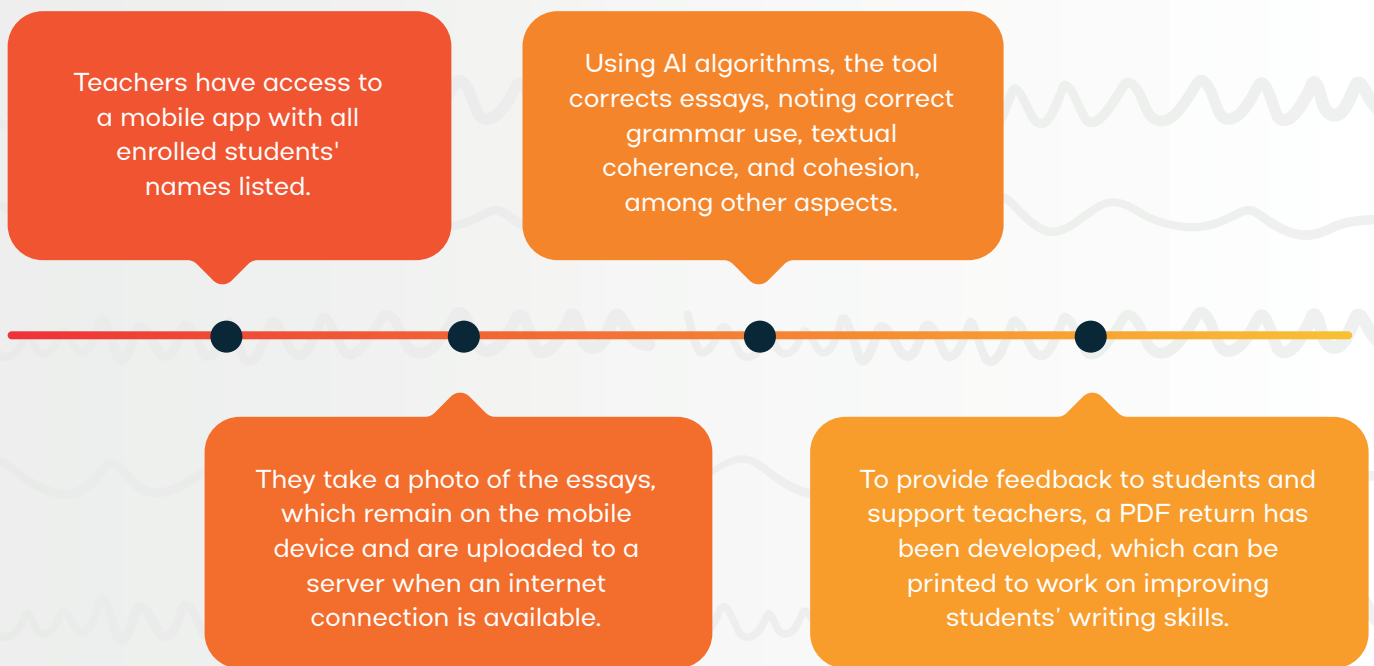
Algorithms use computer vision techniques to accurately segment the image into words in Portuguese, with a precision of 92% to 95%.

Through Natural Language Processing (NLP), essays are automatically evaluated according to a specific rubric.

Teachers receive **PDF reports with a diagnosis of each student's level regarding writing aspects such as cohesion, relevance to the topic, and punctuation, among other points.**

This enables teachers to **plan targeted activities based on individual diagnostics**, improving intervention strategies for learning recovery.

HOW IT WORKS

Teachers have access to a mobile app with all enrolled students' names listed.

Using AI algorithms, the tool corrects essays, noting correct grammar use, textual coherence, and cohesion, among other aspects.

They take a photo of the essays, which remain on the mobile device and are uploaded to a server when an internet connection is available.

To provide feedback to students and support teachers, a PDF return has been developed, which can be printed to work on improving students' writing skills.

HIGHLIGHTS

- The application's use does not depend on stable internet access or significant digital skills, allowing students and teachers in remote areas to benefit from the technology.

- The use of the APA application has positively impacted over 8,000 elementary schools in Brazil.

- Shorter response time between assessment results and classroom intervention.

- Reduced time and cost of the evaluation process.

- Feedback on the performance of each student and the entire class.

NUMBERS
(4 assessment cycles)

164.545
STUDENTS

8.238
SCHOOLS

5.484
TEACHERS

NEES
NÚCLEO DE EXCELÊNCIA EM TECNOLOGIAS SOCIAIS

nees.ufal
www.nees.ufal.br