Tuesdays in the Trenches

A NASCEE Literacy Presentation Series

(30 July) 2024

lectorsa

cognitive & visual processing enhancement

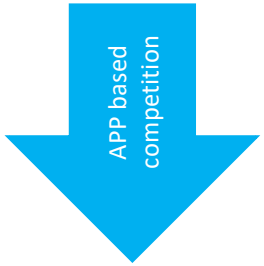
NASCEE

National Association of Social Change Entities in Education

eyebraingym

training visual intelligence

What we do…



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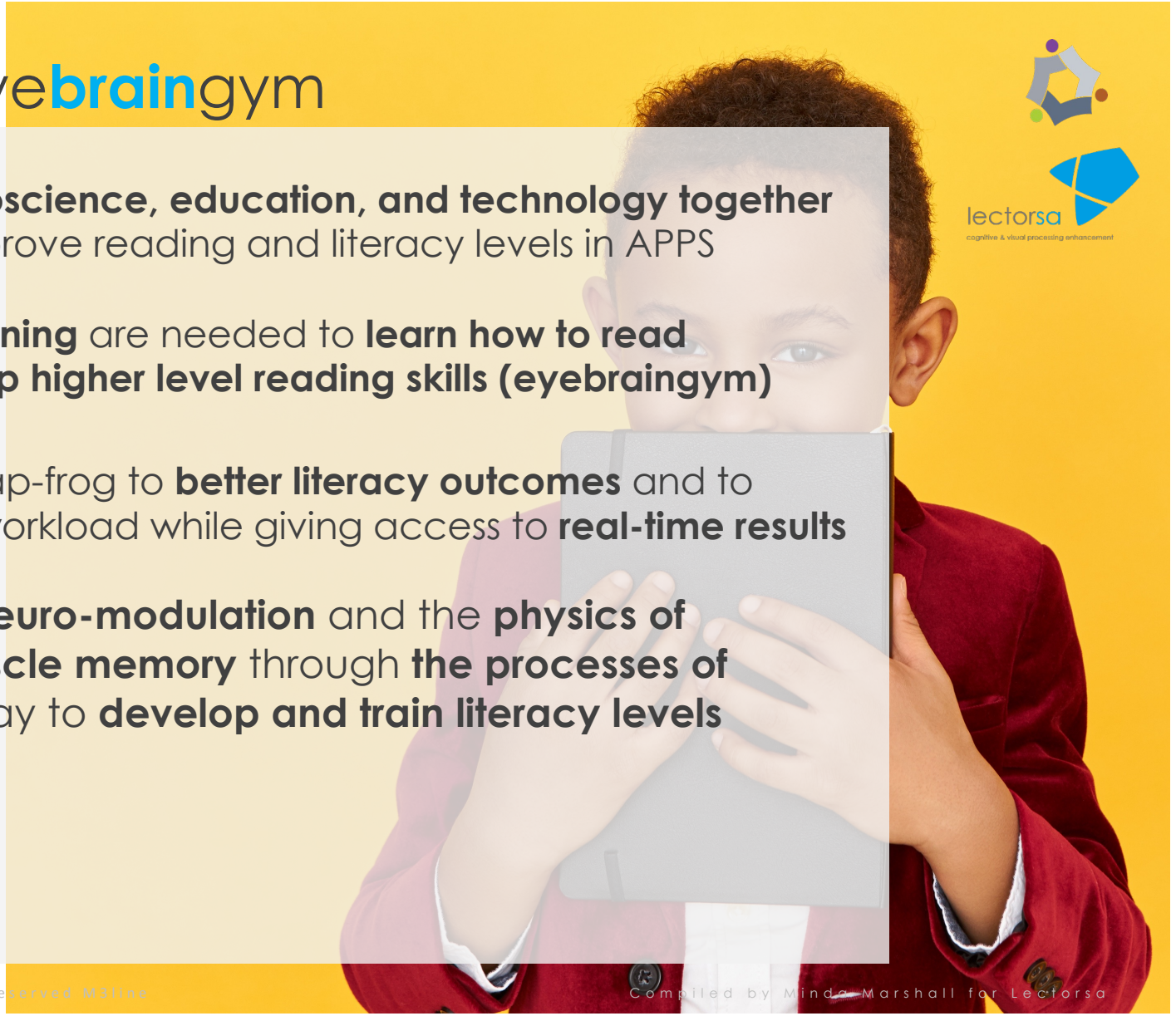
	Description	Eyebraingym (Game-based learning) Silent reading fluency	WordPlay Oral reading fluency	ReadingRiot	Free resources – downloadable in library
1	Process overview:	Integrated Desktop & Mobile APP Placement (Visual, Language, Reading with Comprehension) and 15 sessions with games and exercises to improve skills	Complete curriculum with Teacher training accredited at SACE Grade R – 2 Grade 3 – 4 in process	Online Reading Competition Currently happening for the first time Nationally in South Africa	Downloadable workbooks to teach and develop reading strategies
2	Aim / Objectives / Goals:	• Increase the number of students who are reading at their expected grade levels • Drive more students into college and further study whilst • Ensuring active, engaged citizens who are visually intelligent. Currently available in English, Afrikaans, Sepedi, Tshivenda in process	Explicit, scaffolded step-by-step curriculum with resources, games, stories, and worksheets to teach learners how to read. Flows into eyebraingym Stage L	To create excitement around reading development and higher reading skills.	Create awareness that reading skills can and should be developed beyond Junior Primary years
3	Target audience / Beneficiaries:	Learners, Students, (skills) Teachers, School managers, District and Provincial managers (Skills and Real time DATA)	Pre-schoolers and Junior Primary students and teachers	This year Grade 6 students across South Africa is participating in our inaugural National Reading Competition	Give access to anyone and everyone.
4	Dosage:	15 sessions/ 30 weeks resources Neuromodulation: best practise = 2 weekly for 8 – 12 weeks 3-4 times in 12 years of schooling	A complete curriculum that links in with eyebraingym or can be used on its own	Three sessions – two online Best of the school Best in the province and final in-person Best reader in the competition	As needed
5	Footprint / Where do you work?	Schools; Universities; Reading specialists in HUBS; Private users South Africa, Namibia, Oceana and the Caribbean	Launched in ONE rural private school. Will expand implementation during 2025 for schools signing up	Currently, the competition is nationally (9 provinces) in South Africa. Excited to expand to broader audience for 2025	

www.eyebraingym.com

Theory of change: eyebraingym

- **eyebraingym** brings **neuroscience, education, and technology together** to learn, develop and improve reading and literacy levels in APPS
- **Explicit instruction and training** are needed to **learn how to read (WordPlay)** and to **develop higher level reading skills (eyebraingym)**
- **Technology** helps us to leap-frog to **better literacy outcomes** and to **support teachers** in their workload while giving access to **real-time results**
- We use the **science of neuro-modulation** and the **physics of muscle training** and **muscle memory** through **the processes of reading** in a gamified way to **develop and train literacy levels and visual intelligence**



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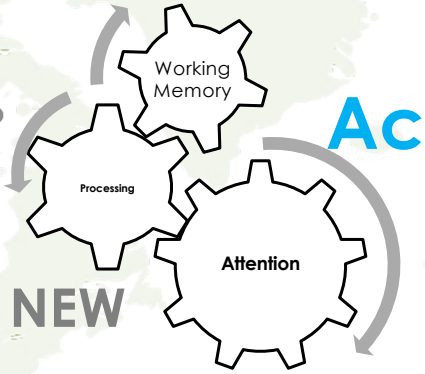
Our theory of reading development

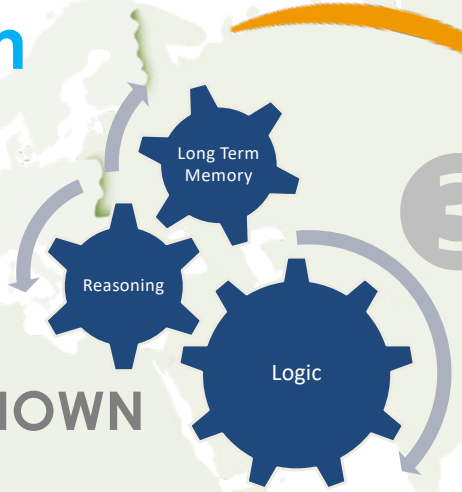
OCCULO-MOTOR:
Relating to the eyes, muscles, nerves and parts of the brain that produce the movements

1 Information

2 Action



3 Interpret



PERCEPTUAL:
The ability to interpret or become aware of something through the senses – specifically visual

COGNITIVE DEVELOPMENT FACTOR

4 Understand

Remember; Understand = LOTS
Apply; Analyse; Evaluate; Create = HOTS

5 KNOWLEDGE BANK

Schema of understanding

6 Competence

www.eyebraingym.com

Compiled by Minda Marshall for Lectorsa

EBG structure…

eyebraingym™
training visual intelligence

PlaceMe evaluation

Including PAVE visual processing assesment
Language Placement
Reading with Comprehension assessment

Multi-levelled Access to Real-time Data

Dashboard access to LMS and reporting
Levelled reporting
Complete infographic reporting
Downloadable worksheets

15 Individualised Sessions

EyeGym
12 different exercises/ games
ReadGym
10 different exercises / games
Comprehension and Cognitive skills development
8 different exercises / games

GamePlan and In-system Communication tool

GamePlan ensures high completion rates and neuro-modulation

- The system will track each user and advise them to stay on course with their exercise dates.
- Lesson dates will be automatically adjusted when a lesson is missed.

Automated messaging
Personalised messaging
Downloadable APP

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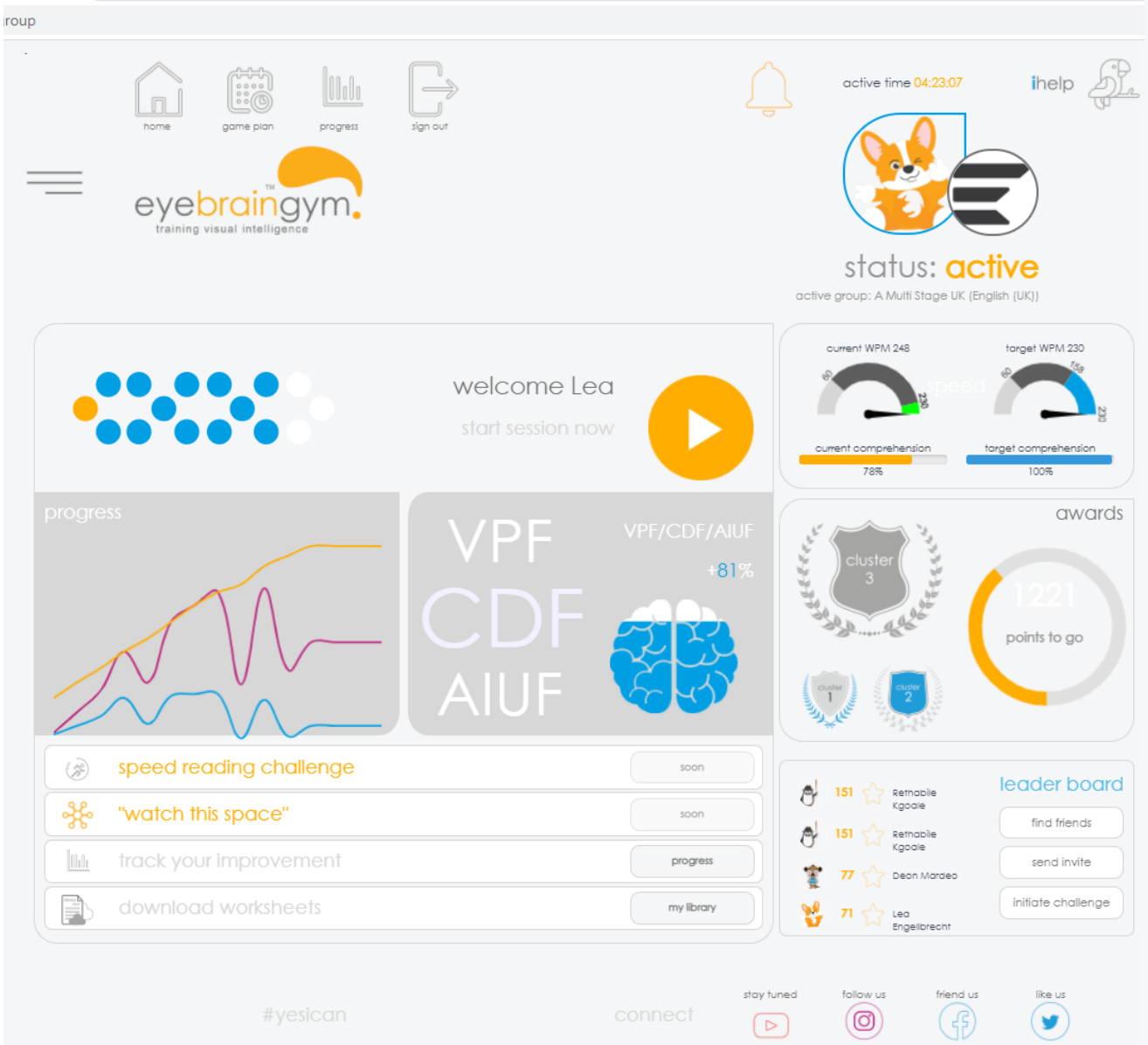

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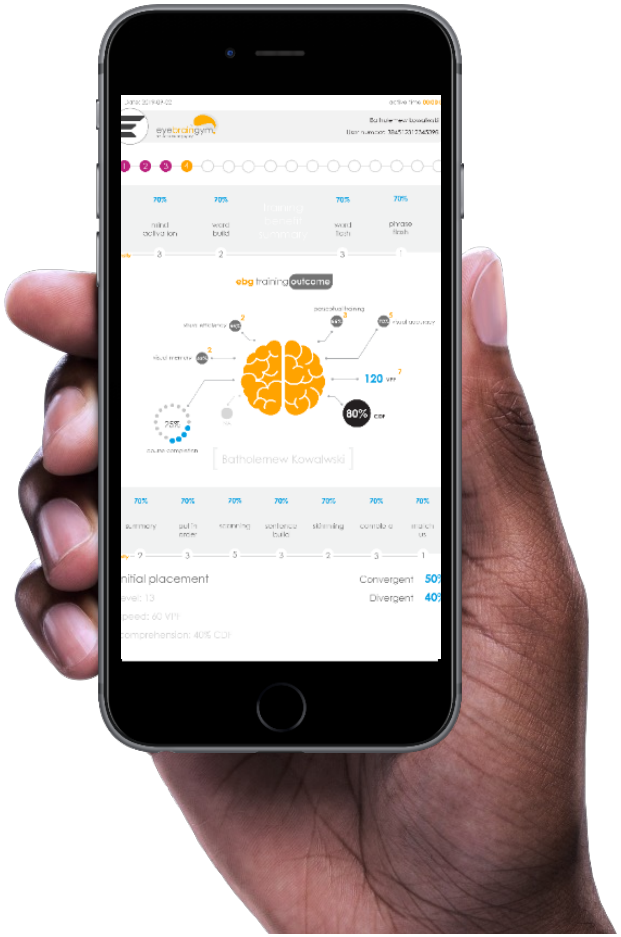
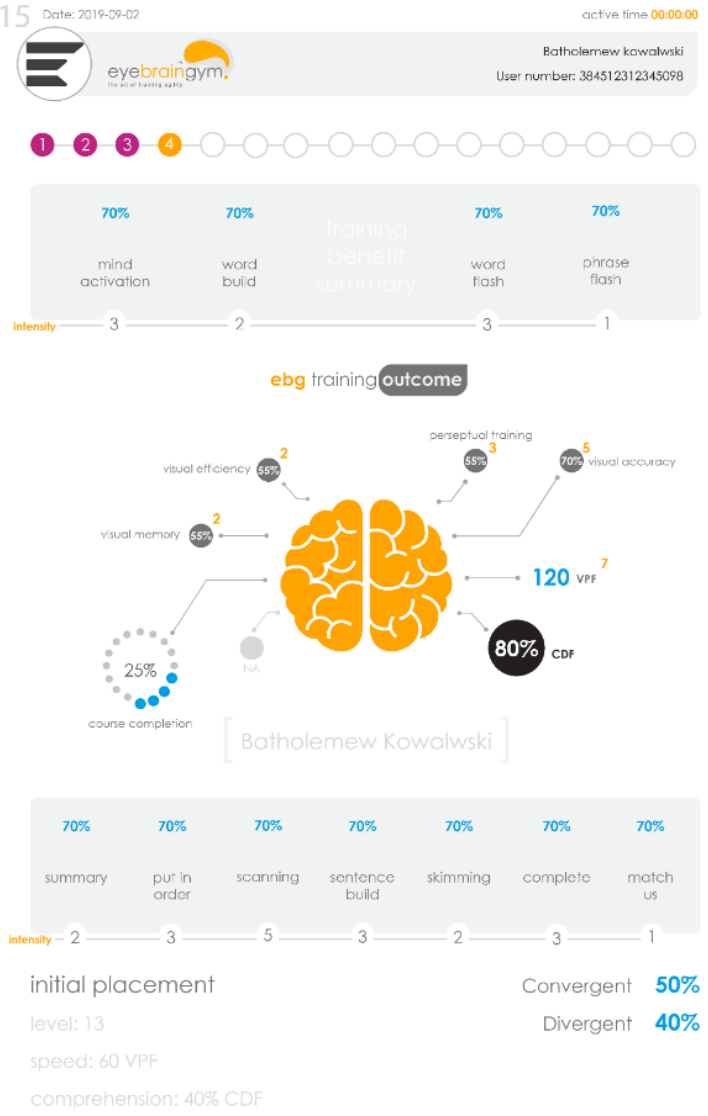
Student and facilitator dashboards

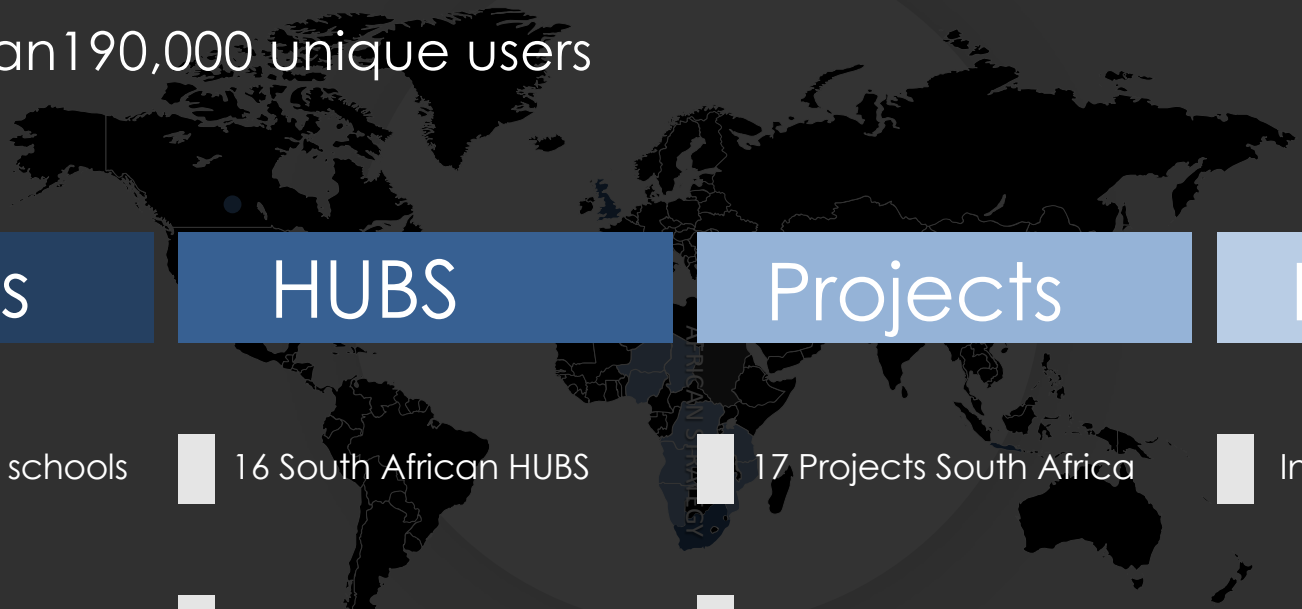
Real-time results





Footprint to date on eyebraingym

more than190,000 unique users



Schools

- 198 South African schools
- 3 Bahamian schools
- 1 Asian school

HUBS

- 16 South African HUBS
- 1 Bahamian HUB
- 1 Namibian HUB

Projects

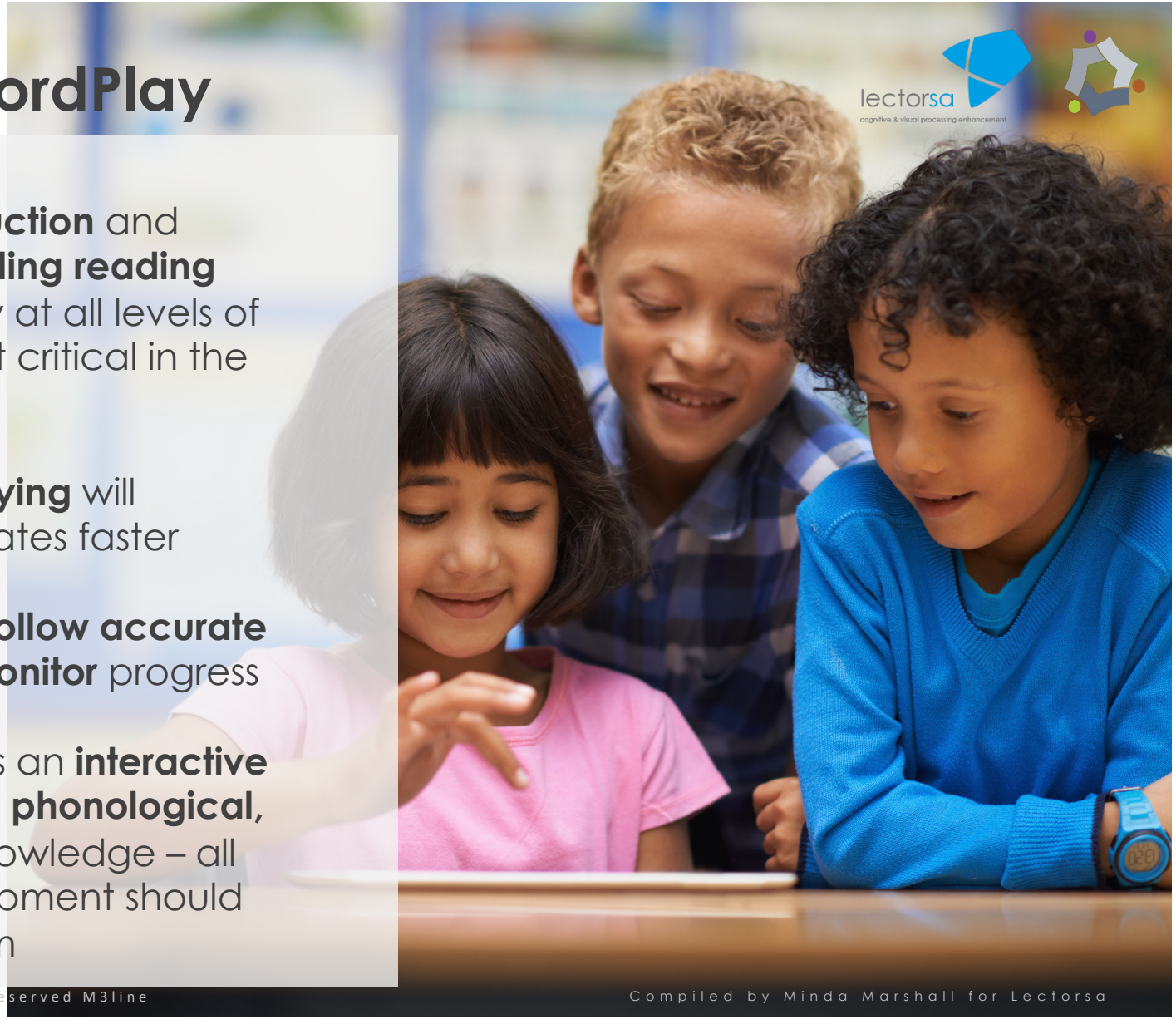
- 17 Projects South Africa
- 1 Project Malaysia

Private

- International Users

Theory of change: WordPlay

- Explicit **step-by-step instruction** and practice through **scaffolding reading development** is necessary at all levels of reading development but critical in the Learn-to-read phase
- Learn to read through **playing** will achieve **greater** success rates faster
- Empowering teachers to **follow accurate processes** and **actively monitor** progress
- We propose that reading is an **interactive model** that includes **visual**, **phonological**, **semantic and syntactic** knowledge – all aspects of reading development should be included in the program



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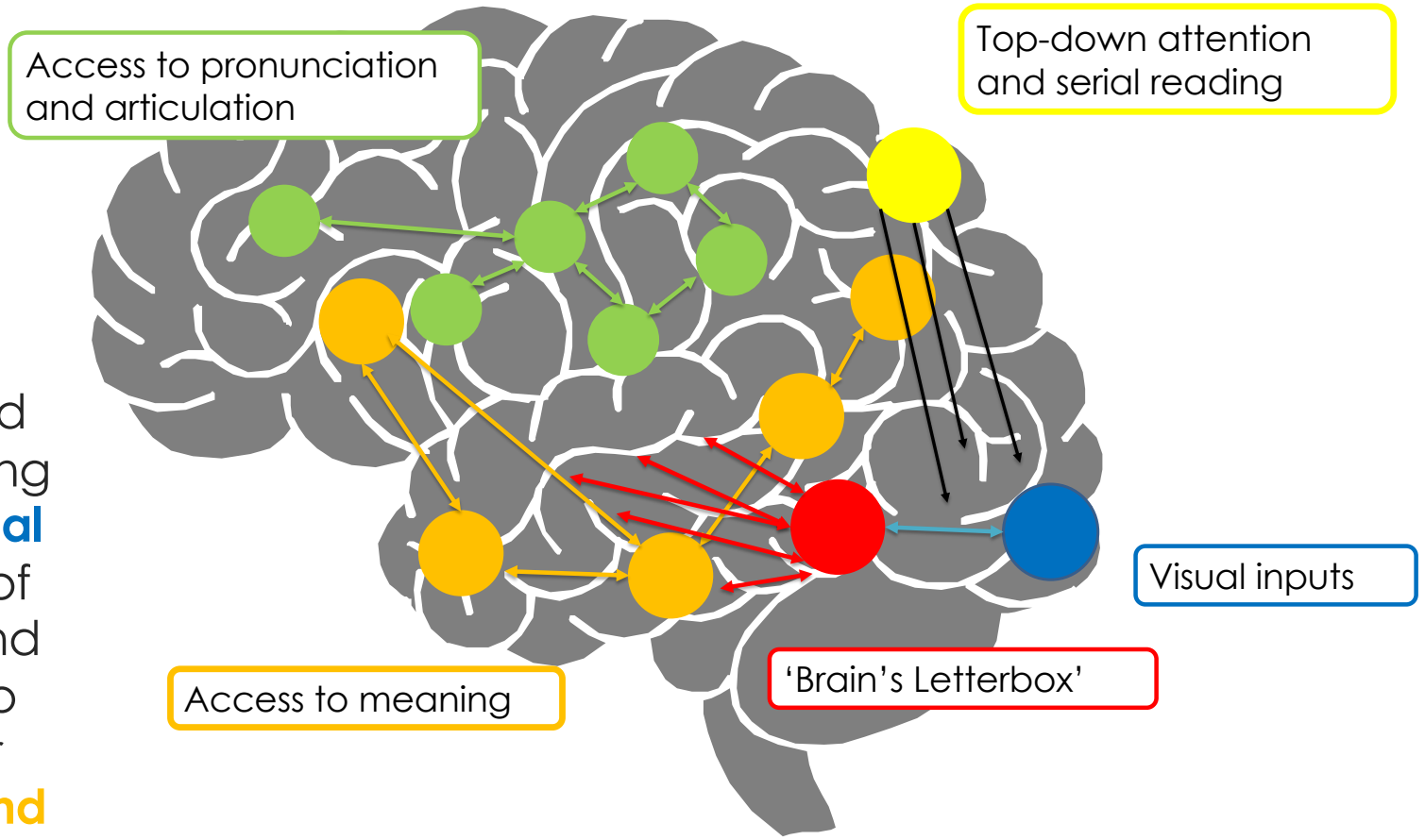
The brains architecture for reading

Stanislas Dehaene

Learning to read consists in creating an **invariant visual representation** of written words and **connecting** it to **brain areas** for **coding** and **sound**



http://www.dyslexia-international.org/neuroscience/

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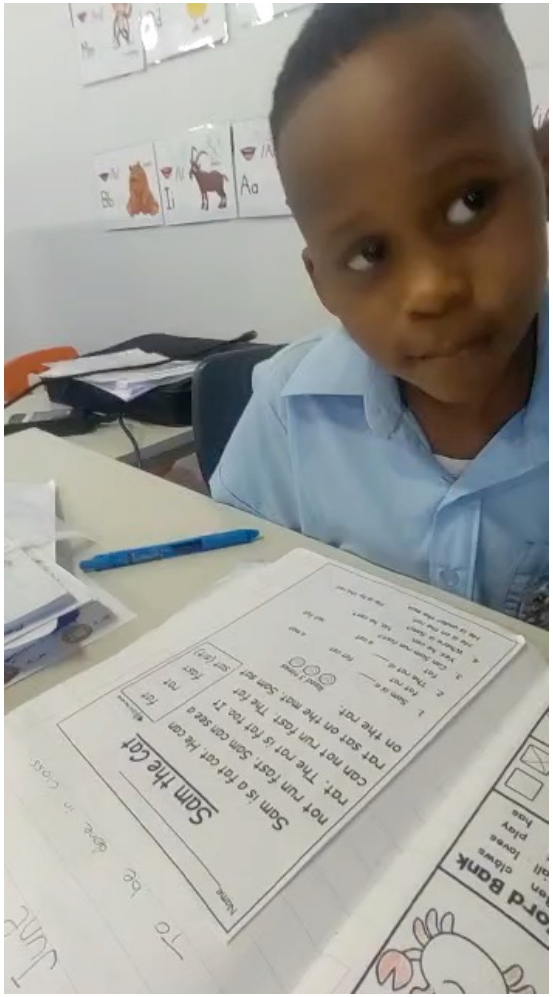
Play it!

eyebraingym™
training visual intelligence

Sing it

Read it



Mokopane Destiny Academy

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training visual intelligence

Indicators

	Programme	Core activities	Impact indicators
	eyebraingym	On-line placement Online development sessions enriched with in-class activities (Mind-activation and Metacognition)	Participation, Gameplan, Visual skills, Language, Silent reading fluency, LOTS and HOTS Metrics *Gauged against norms and standards for silent reading fluency *Access Reading Test correlates *Lexile Levels correlates **Visual Processing Factor** **Cognitive Development Factor** **Action-Interpret-Understand-Factor = Grad**
	WordPlay	Teacher training (SACE accredited) Download printable weekly guides and worksheets Monitor quarterly implementation through class evaluations	Teacher training and feedback mont Quarterly evaluations/ tests for student Used for yearly Teacher Training
	Reading Riot	On-line reading competition	Reading speed Comprehension AIUF Factor
	Published various peer-reviewed papers and book chapters		

WordPlay
Students in Grade 1 started reading decodable stories in June/July of the year.

Evidence of impact

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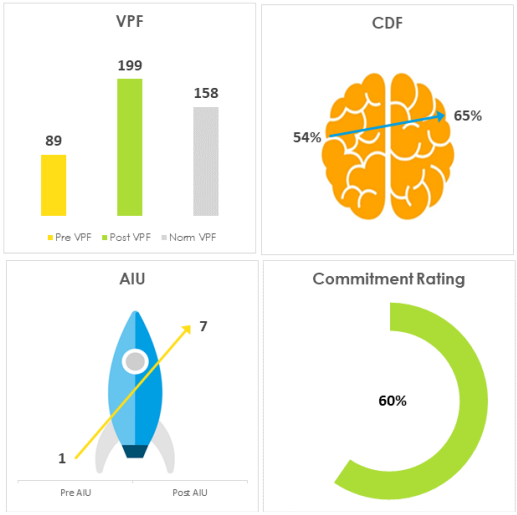
Real-time data on placement and
Course progression reports

Eyebraingym outcomes assimilated online

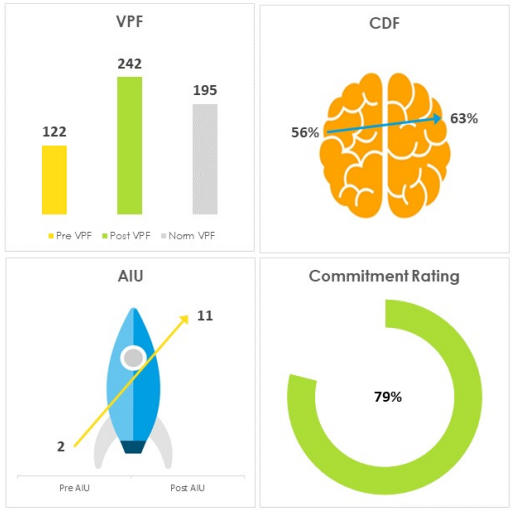
Grade 4 results

427 students



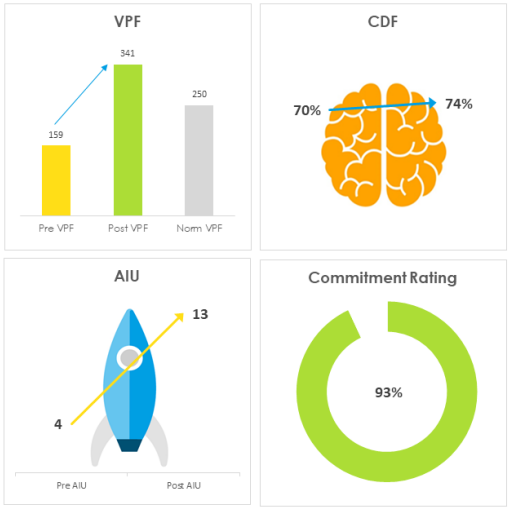
Grade 7 results

357 students



tertiary students

3000+ students



ONLINE TERTIARY INSTITUTIONS AND PROJECTS

- **TERTIARY INSTITUTIONS**
- **1660 USER PROFILES**
- **IMPROVEMENT OF 153 WPM 70% COMPREHENSION**
- **AVERAGE 9 YEARS IMPROVEMENT**
- **100 % of READING RELATIVE EFFICIENCY IMPROVEMENT**
- **6 HOURS PER COURSE**

UFS

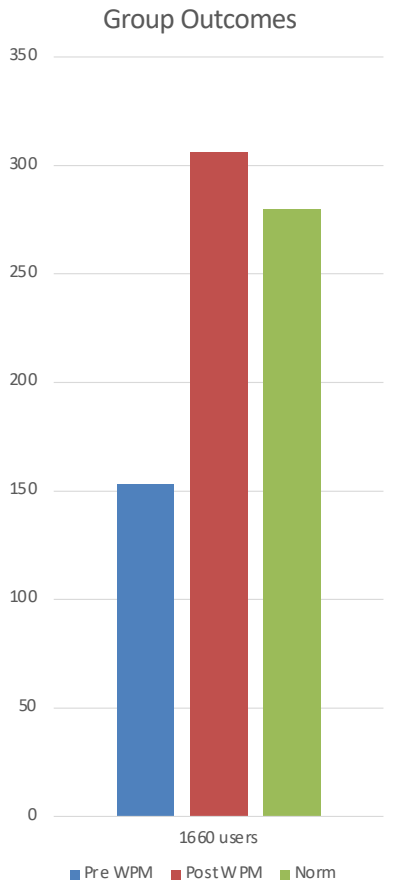
STARTED ON A **LEVEL 5**

JAKES GERWEL FELLOWSHIP

CONCLUDED ON A **LEVEL 15**

click learning

SA College for Tourism TRACKER ACADEMY



Publications

rewired 190 000+ brains

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Level 12 is Accredited NQF 6 at Stellenbosch University

Available as a short course offering

Two doctoral thesis

The Effect of a Reading Program on the Reading Performance of First-Year Students at a Higher Education Institution; Lea Koenig et.al.
University of Freestate

Academic Publications

Accurate On-line Intervention Practices for Efficient Improvement of Reading Skills in Africa - Minda B Marshall
The Universal Journal of Educational Research
ISSN: 2332-3213

IGI Global Publication on Student support:

Maximizing students' learning success through Lab-On-Line: The University of Namibia Experience

Factors that influence the transition from high school to higher education: a case of the JuniorTukkie programme by Petrus Johannes Phillipus Lombard (BSc, HED, BEd, MEd)
Submitted in fulfilment of the requirements for the degree **DOCTOR OF PHILOSOPHY**

IGI Global Publication

Handbook of Research on Acquiring 21st Century Literacy Skills Through Game-Based Learning
Chapter: Using game-based learning to improve boy's literacy

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Launched in **JULY 2024** - Reading-Riot

Our partnerships

- We are a dynamic third-generation family-based business with **more than 35 years of expertise in research, development, and implementation**.

- We launched LAB-on-line in 2011.
- Eyebraingym web app was launched in 2020, and the MOBILE APP was launched in 2022.
- Our systems have supported and developed more than 190,000 users.

- We work with specialist teams to **deliver first-to-market solutions** grounded in scientific research, with precision-developed algorithms embedded in the newest technology available.

- We outsource various development aspects and partner with world-class developers, educators, and researchers.

- **Most of our current users are paid customers. We've re-structured recently to access the public sector.**

- **A Family Trust sponsors research and development**

“Skilled reading is an art, but teaching a child to read is a science.”

Thank you!

Minda Marshall – minda@lectorsa.com

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