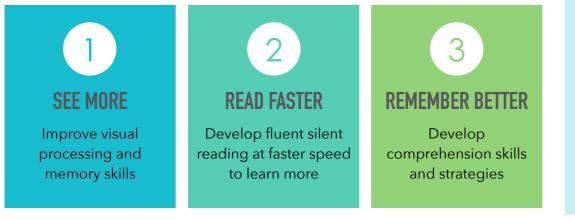
# Student success

#### The role of Eyebraingym in advancing student academic outcomes



### What does Eyebraingym do?

The system helps individual students to develop the skills and acquire strategies to see more, read faster, and remember better. Eyebraingym (and its range of activities) is designed to develop foundational learning skills through playing gauged games and doing structured exercises. We bridge the gap between information and knowledge by training and optimising the brain of each user to work faster and smarter with visual information. Eyebraingym use actions within the reading process to re-wire the brain to produce healthier and stronger minds. Developing these foundational skills increase visual intelligence for our users and establish them as active, involved citizens that can make intelligent choices towards a better future. The aim of Eyebraingym is to develop a coherent mind, so that we can achieve improved interaction with visual information.





Importance of visual intelligence Living successfully in the 4th Industrial Revolution, you must be visually intelligent. (Page 2)



### Reading with comprehension

Eyebraingym use actions within the reading process to re-wire the brain to produce healthier and stronger minds. (Page 3)



Academic outcomes Academic results received from schools (Page 4)



#### **Testimonies** The stories our partners tell us... (Page 5)



Academic papers Published (Page 7)

# The importance of visual intelligence

#### **READING AND LITERACY LEVELS**

Neuroscience confirms that your brain is a selforganising creative system. Every skill and ability you have was constructed in a specific region or regions of your brain, as a result of training and application. Learning is connecting neurons; developing neural pathways and enhancing neural networks. Neuroplasticity is the brain's ability to reorganise itself by forming new neural connections throughout life. Connections within the brain are continually becoming stronger or weaker, depending on what we use. This is the 'muscle-building' part of the brain, the physical basis why repetition strengthens the power of choices and actions. Over time these actions becomes automatic.

Living successfully in the 4th Industrial Revolution, you must be visually intelligent. Visual intelligence is the ability to find, interpret, understand, link and process visual information. Reading with good comprehension is vital in the development of visual intelligence. Good readers tend to be lifelong learners. Poor reading and comprehension skills impacts all aspects of learning.

We have to empower our students to read and understand better. Before the pandemic, it was predicted that over three-quarters of a billion young people in low- and middle-income countries will not be on track to acquire necessary secondary-level skills by



2030. According to UNESCO data, 91.3% of the total enrolled learners worldwide have been adversely impacted in some way or another during the COVID-19 pandemic. This indicates that learning poverty numbers will escalate in the next few years. Furthermore, with the dawn of Industry 4.0, the need for collective intelligence has never been greater, and to achieve collective intelligence, we have to support and develop citizens to be visually intelligent.

"The most significant gap currently challenging the improvement of educational outcomes globally is the lack of capacity in our learners, students and workforce to intelligently work with visual information."

The outcomes of the EYEBRAINGYM-system will increase the number of students who are reading at their expected grade levels, and drive more students into college and further study, whilst ensuring active, engaged citizens who are visually intelligent.

#### **BENEFITS OF GOOD EDUCATION OUTCOMES**

Good education outcomes ensure macro-economic stability; ignite inclusive growth, and advance their country's ability to be globally competitive. Improved education outcomes also lead to an increase in tax revenue and GDP. It lessens the demand on social, health and safety services. It contributes to low levels of crime and improved health.

Watch: What is visual intelligence? (2:05)



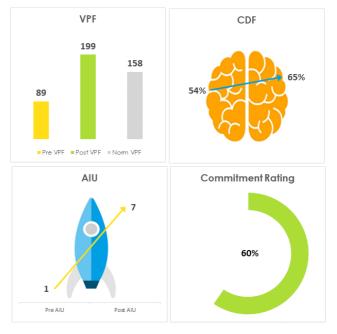
## The importance of reading with comprehension

The basis of good literacy skills is reading, but reading is not a natural process. The human mind is not innately 'wired' for written information – therefore learning to read, and using accurate skills and strategies to navigate the growing oceans of information is fundamental to achieving success in the challenging post-COVID landscape of education. If reading with comprehension is not accurately developed, it becomes a life-long challenge. Learners in primary school, through secondary school and even adults, continue to struggle with information, if they are not reading at acceptable levels.

It is for instance, widely presumed that students who have entered university are proficient readers, and have mastered the building blocks of reading. This is, however, not the case for all students. Even at tertiary levels, students very often struggle with vocabulary, and their reading fluency is insufficient.

Eyebraingym (and its range of activities) is designed to develop foundational learning skills through augmenting the science of neural wiring to bridge the gap between information and knowledge by training and optimising neural pathways in the brain of each user. The system focus on improving three factors, namely the visual processing factor (VPF) and cognitive development factor (CDF). Each of these two factors incorporates measurable subelements. VPF is measured as words per minutes (wpm) read within the parameters of the readability of the material. CDF is measured as a percentage of comprehension against the complexity of content. The combined VPF and CDF give us the third factor: Action-Interpret-Understand.

## Watch: What happens when we read? (2:32)



Grade 4 LAB-on-line Results 2019 (427 students)

Grade 7 LAB-on-line Results 2019 (357 students)



# Eyebraingym is designed to use the science of neuromodulation and the physics of muscle training and muscle memory through the processes of reading to develop and train visual intelligence.

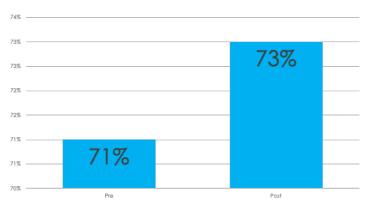
The system includes an in-depth placement module, an eye-gym, downloadable worksheets (enabling blended learning) and scaffolded materials that challenge each user at their personal level. More than 150,000 research profiles (BETA version LAB-on-line) and 10 years practical implementation with the BETA version ensure we achieve high levels of success with online development and training – from the first years of schooling well into tertiary levels and corporate training. WATCH: Why Eyebraingym? (0:56)

### Academic outcomes

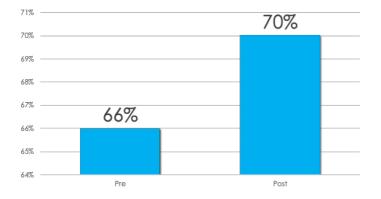
Reading and learning are both complex, integrated actions. Because of this, it can be difficult to pin point specific reasons for improvement of academic outcomes. We do know from years of research that improved visual intelligence, silent fluency reading with comprehension, and learning strategies or study skills can have a very positive impact on a students academic progress. Keep in mind that there is not one reason for improvement but it consists of various factors that play a role in differing situations, degrees and environments. Physical, psychological, emotional, educational and environmental factors are all woven together in this cause, and this makes it extremely difficult, if not impossible, to assess and isolate one reason for improved outcomes.

The following results were received from schools participating in projects with our on-line systems. In protecting the privacy of students and schools the names of schools have been omitted from this report.

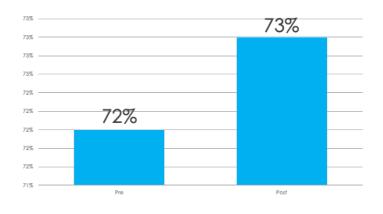
School NP Grade 3 Academic outcomes pre and post Lectorsa-system development



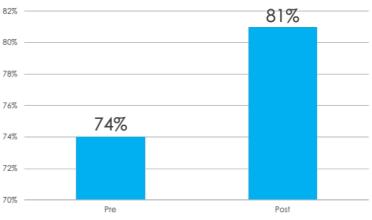
School L Grade 4 and 5 Academic outcomes pre and post Lectorsa-system development



School BB Grade 9 Academic outcomes pre and post Lectorsa-system development



School HSR Grade 12 Academic outcomes pre and post Lectorsa-system development for 133 distinction candidates





## Testimonies from a few of our partners

#### **HOËRSKOOL NELSPRUIT**

We've partnered with Hoërskool Nelspruit since 2011. The school upgrades visual processing, reading and comprehension skills for all Grade 8 and 9 learners. "We saw tangible results in the improvement of their marks." - Catherine van Wyk implementing educator.



#### **TECHNICAL HIGH SCHOOL TOM NAUDE**

Tom Naude has also been a long standing client of Lectorsa. They have used our systems to develop foundational skills for their learners since 2011.



#### **CRISTEL HOUSE**

"It is our mission at Christel House to make sure we create opportunities for our students. Thus, we are always trying to remain on the cutting

#### 'WITH LECTORSA FAILURE IS NOT AN OPTION'

"It is our mission at Christel House to make sure we create opportunities for our students. Thus, we are always trying to remain on the cutting edge to find programs that assist them to excel in their academics. For this reason, we naturally moved to Lectorsa simply because it is a proven programme

and all of the spade work has been done for us. With Lectorsa, failure is not an option" – Cedric Esterhuizen, Head of Languages at Christel House \$A



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With Lectorsa, failure is not an option" – Cedric Esterhuizen, Head of Languages at Christel House SA.

#### JRTUKKIE PROJECT AT UNIVERSITY PRETORIA



"The Lectorsa reading programme improved not only participants' literacy and comprehension skills, but also their time management and communication skills. Lectorsa further assisted participants whose home language is not English to understand English better as a subject, and as a second or third language."

University Pretoria: 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)https:// repository.up.ac.za/bitstream/handle/2263/67771/ Lombard\_Factors\_2018.pdf?sequence=1&isAllowed=y

#### HOËRSKOOL KEMPTONPARK

#### Kempies a cut above the rest Wilna du Plessis (teacher at Kempies) said, "LAB-on-line helps to develop critical skills The teachers are very optimistic about the solution and they can see an improvement in the learners' results in various subjects.' Wilna du Plessis lectorso

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#### **GET AHEAD COLLEGE**





"LAB (Eyebraingym beta) has improved students' concentration, spelling, reading speed and reading with understanding. I would recommend LAB" - Didas Tumiise

#### ST STITHIANS BOY'S COLLEGE

Watch out interview with Greg Crighton Educational Psychologist from St. Stithians, You'll learn how your school can develop your students with fundamental reading and learning skills to become top achievers in school and life.

### Private feedback



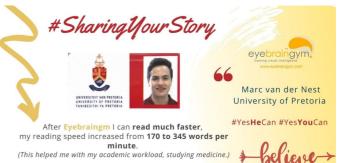
"Eyebrainaym was fun!" - Melo Mashishi Grade -R

## #SharingYourStory



"LAB-on-line (Evebraingym beta) helped with my studies, and I did well in subjects that required quick reading and comprehension. I even got A's in both English and Afrikaans. I achieved my academic and study goals - 8 distinctions in my matric year with an average of 90%. Also because of this skill, I do part-time editing for books and publications. I would definitely recommend it, reading and comprehension form a huge part of studying." Palesa Magudulela, #ActivateYourMind  $\star \star \star \star \star$ 

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I am less afraid to read large volumes of work and even read aloud, which I struggled with earlier

"After Eyebraingm I can read much faster, my reading speed increased from 170 to 345 words per minute. (This helped me with my academic workload.) I am less afraid to read large volumes of work and even read aloud, which I struggled with earlier." - Marc van der Nest

#### #SharingYourStory



"Eyebraingym helped me to **focus more** 

I enjoyed how it challenged me and helped me to **see what I am capable** of."

Student - Click Learning #YesYouCan Patricia Van Wyk

"Eyebraingym helped me to focus morel enjoyed how it challenged me and helped me to see what I am capable of." - Patricia Van Wyk



Today we are blown away with Eyebraingym and the focus that it is placing on visual intelligence which will allow our learners to improve their visual processing, impacting on their reading and allowing them to achieve greater mental capacity. This will all contribute to them developing higher cognitive reasoning skills." - Leone Erasmus-Facilitator at CBC Mount Edmund



"Eyebraingym assisted my son Jandre to improve from 107 words per minute with 20% comprehension to 245 words per minute with 80% comprehension. He improved his academic outcomes so much that he was one of the top 15 students in his year." -Debbie Erasmus "Eyebraingym brings together 12 years' of experience and combines it with cutting edge technology, available through smart devices and geared towards upscaling skills for students, learners and workers in a post-COVID education and training environment." - Thomas Marshall (M3line)

#### Academic papers on outcomes achieved with the system

★Koenig, Lea & Du Plessis, Annelize & Viljoen, Marianne. (2015). The Effect of a Reading Program on the Reading Performance of First-Year Students at a Higher Education Institution. International Journal of Educational Sciences. 10. 297-305. 10.1080/09751122.2015.11917660.

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

http://www.hrpub.org/download/20160730/UJER4-19506351.pdf

★Lombard, P. (2020). Factors that influence the transition from high school to higher education: a case of the JuniorTukkie programme. African Journal of Career Development, 2(1),a5.

https://doi.org/10.4102/ajcd.v2i1.5

★IGI Global Guide: Student Support Services: Addressing Multicultural Needs in School guidance and Counselling. (2019) Chapter 12: Maximizing Students' Learning Success Through Lab-on-Line: The University of Namibia Experience (pages 262-276). Minda M. B. Marshall, Simon George Taukeni, Rheinhold Disho Muruti, Gibert Likando, Cynthy Kaliinasho Haihambo, Mathilde Shihako, Chamelle De Silva, Marshall M.

Retrieved from website: https://www.igi-global.com/book/ addressing-multicultural-needs-school-guidance/227627? utm\_source=m&utm\_medium=ac&utm\_campaign=bec\_to\_prod&u tm\_content=08.12.2019

View "The Eyebraingym vision"

Contact us online at <u>www.eyebraingym.com</u> or mail to <u>info@eyebraingym.com</u> and partner with us to shape a better future.