



FINAL RESULTS' PRESENTATION OF THE BETA-TEST OF LILI LAMP

The Lili team has decided to launch a beta-test in May 2021 proposing to dyslexic people to use the Lili lamp daily for 4 months.

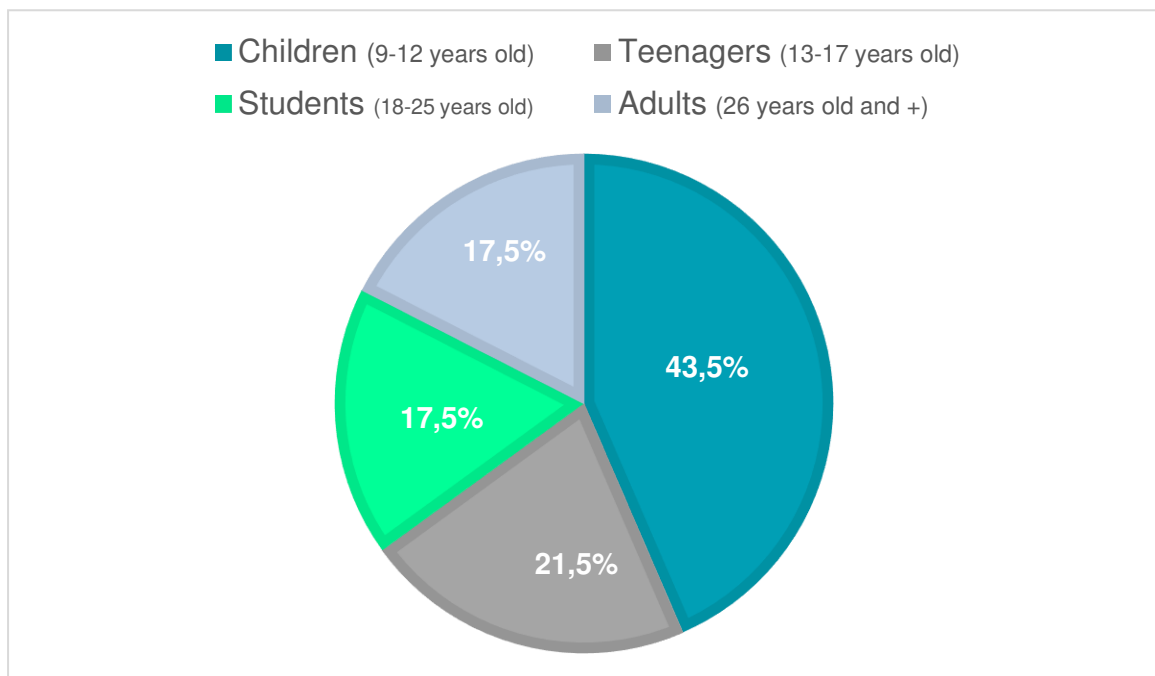
While we are well aware that we are not in the context of a scientific study, we can nonetheless identify several data from the 23 responses to the questionnaire at the end of the beta-test.

We chose to propose the Lili lamp test to a cohort diversified in terms of the following parameters

- age
- non-excluding comorbidities (LD/ADHD, LD/ADD, LD/anxiety)
- current continuation of speech therapy/pause or discontinuation of speech therapy at the time of beta testing.

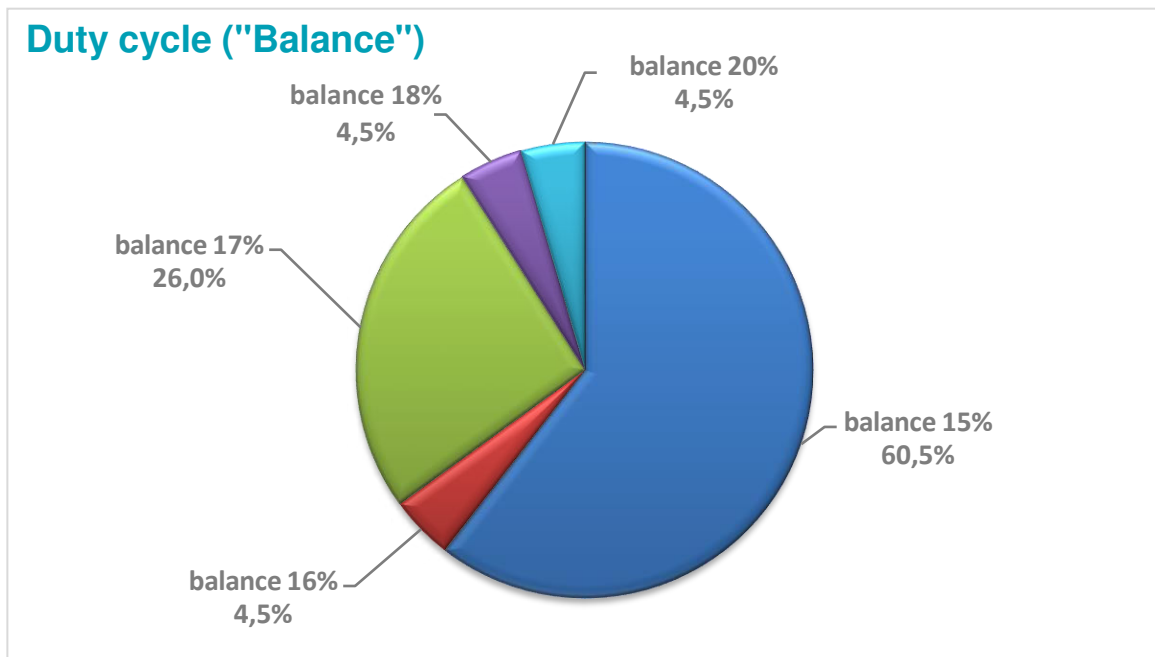
In order to create a lamp that is as close as possible to the daily life and needs of dyslexic people, we ensured that we had a representative panel of possible daily uses (school, college, workplace) across the ages of our testers.

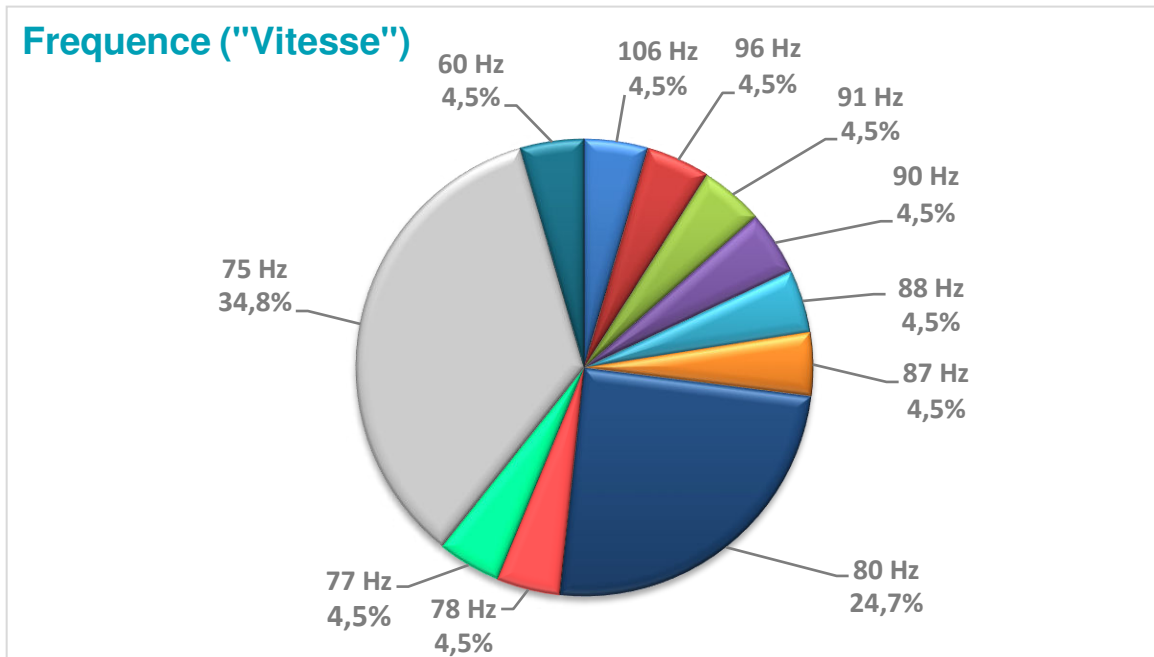
SAMPLE OF THE AGE OF OUR BETA TESTERS :



We also ensured that all of them had their own speed and balance settings (we provided setting assistance where necessary).

SETTINGS FOR OUR BETA-TESTERS :

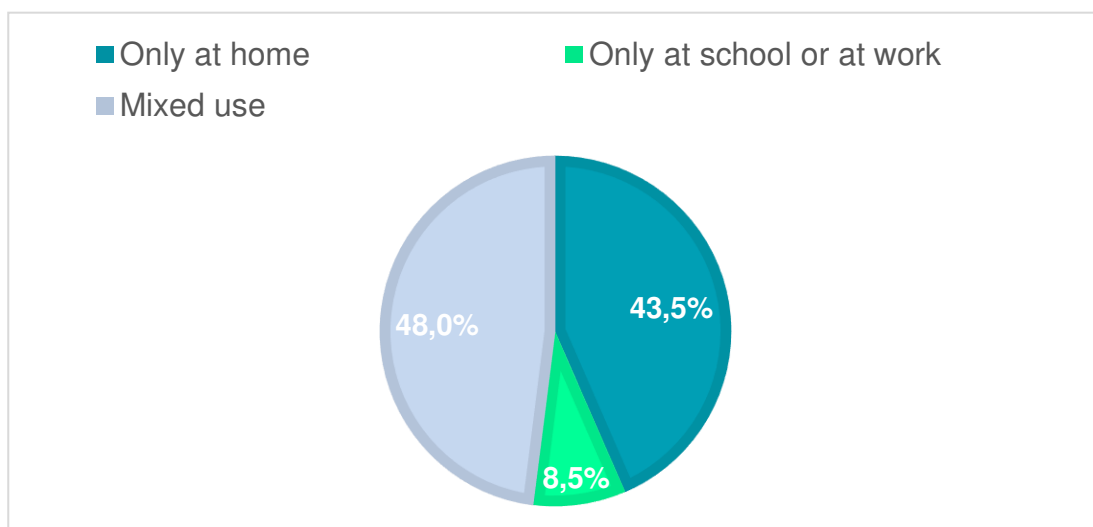




ASSESSMENTS OF THE SPECIFICITIES OF THE LAMP :

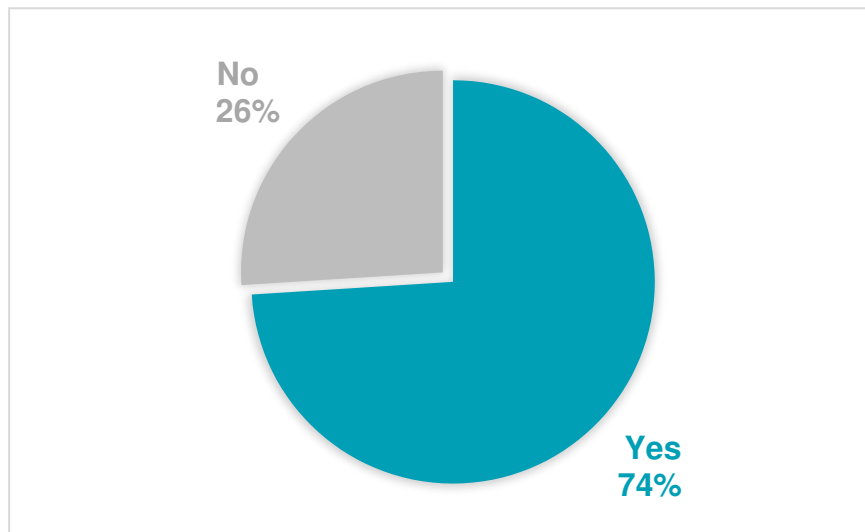
- Ergonomy : 96% des beta testers satisfied or very satisfied
- Autonomy : 75% satisfied or very satisfied
- Resistance/mobility: 100 % satisfied or very satisfied
- Easy to use : 96% satisfied or very satisfied

USAGE SITUATIONS of the LILI LAMP:



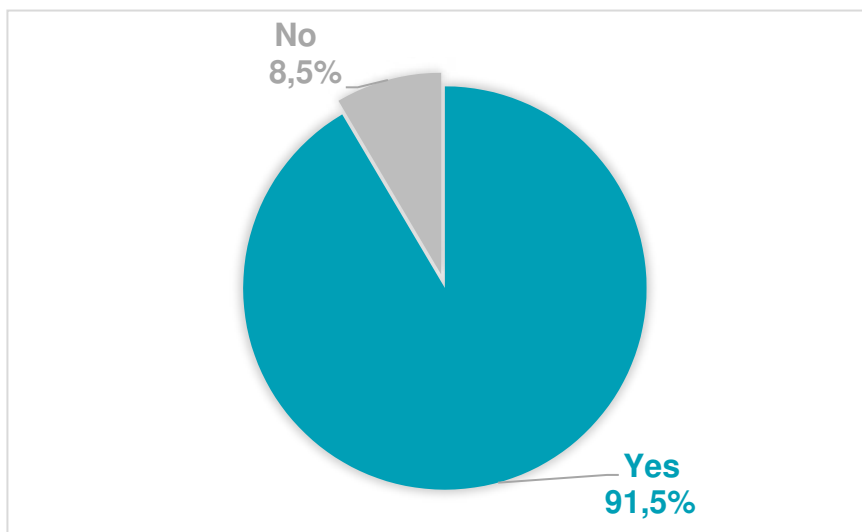
It is worth noting that only 39% of beta-testers used their Lili lamp during their holidays, which can be explained by the fact that a minority of dyslexic people read for pleasure. Hence a "reading break" during the holidays...

ADOPTION OF THE LILI LAMP:



The adoption rate of the Lili lamp corresponds to the number of beta-testers wishing to keep their lamp after the beta-test.

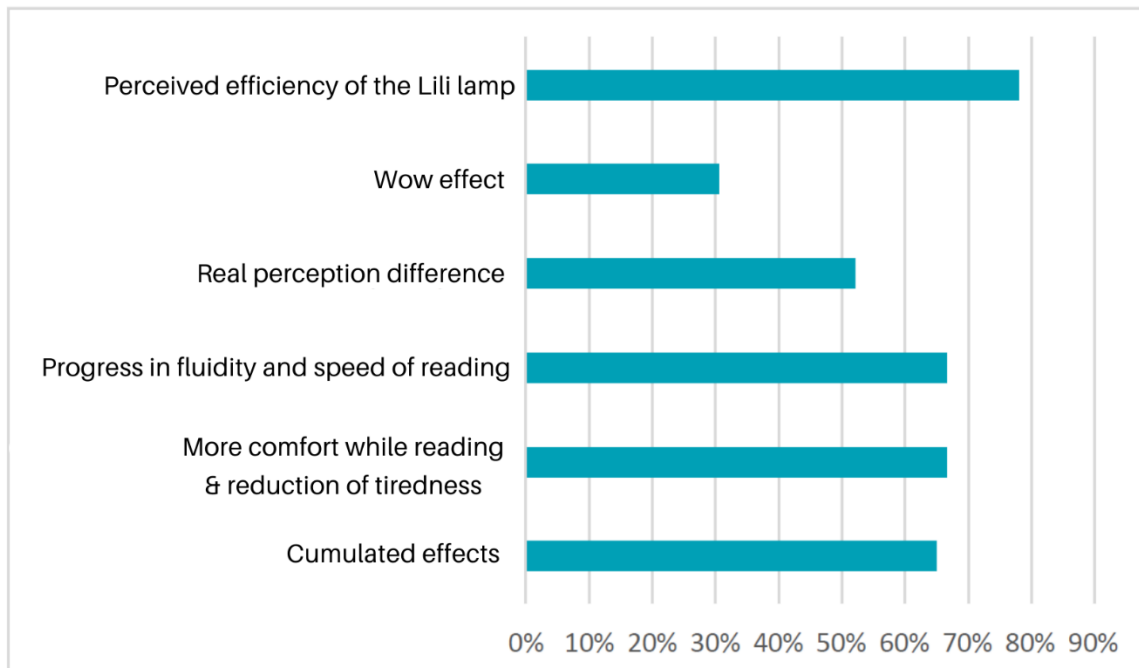
BETA-TESTERS WHO RECOMMEND THE LILI LAMP:



The difference between adopting and recommending Lili is explained by the fact that two beta-testers would recommend it even if they did not personally feel the benefits:

- a mother, a teacher, would recommend the lamp even though her daughter did not adopt it (due to a visual characteristic specific to her child);
- a teenager did not feel the effects of the Lili lamp personally but noted the effectiveness of the lamp on her father and sister.

GAINS WITH LILI :



The **30.5%** of beta-testers who experienced the famous **Wow effect** (i.e. a very clear difference in visual perception as soon as the setting was made) reported letters that "dancing" less.

The choice of this lexeme, as surprising as it is, comes up several times and cannot fail to raise questions about the usual visual perception of certain dyslexic people.

For, if with the Lili lamp, the letters 'dance' less, cognitive logic dictates that the same should be true for numbers. The benefit at this level, described by one of our young beta-testers, who is also dyscalculic, then makes perfect sense.

If we obtain 30.5% of immediate "Wow" effect, the rate of **"real difference in visual perception"** reaches **52%** because, for some beta-testers, it takes 5 to 6 uses, or even a week to reach it.

66.5% of beta-testers mention an **improvement in the speed and/or fluidity of their reading**. Among them, some were able to objectify the effective gain through leximetry tests proposed by their speech therapist (e.g.: gain of 28 correctly read words/2 minutes, i.e. gain of a class CE2 → CM1, or gain of 32 correctly read words per 2 minute interval...).

Many testimonies, without going as far as the Waouh effect, describe :

- words that "no longer overlap",
- better line tracking,
- easier line breaks
- fewer reading errors
- gains in reading speed
- gains in comprehension.

We cannot fail to compare these results with the work of Zorzi et al, 2012; Perea et al, 2012, Schneps et al, 2013, Rello, 2014, Sjoblom et al, 2016; Hakvoort et al, 2017. These researchers demonstrate that increasing inter-letter and inter-word spacing (i.e. "words no longer overlap") leads to an improvement in reading accuracy (i.e. "fewer mistakes") and, in a second stage, to an increase in reading speed.

The testimonies of our beta-testers regarding line tracking and feedback (e.g. "I follow the lines better and I no longer make mistakes to read the next line") are perfectly consistent with publications by Rello (2014) and the British Dyslexia Association (2018).

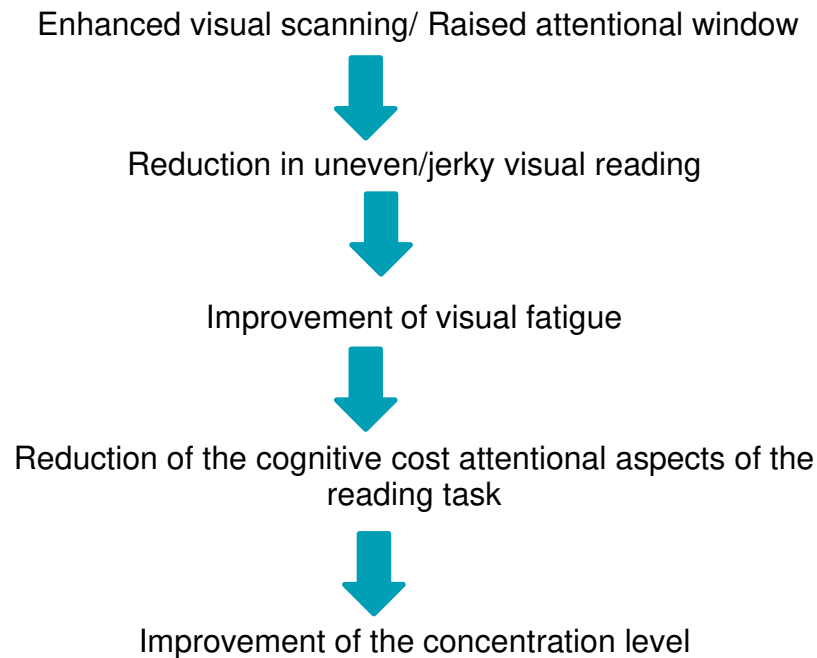
In these articles, the authors highlight an improvement in readability and reading comprehension for dyslexic people with increased line spacing.

Prior to memorization in the cognitive process, the gain in comprehension is also clearly stated by several beta-testers (e.g.: "I retain sentences better, no need to reread").

The Lili lamp allows the same ease of reading as publications adapted for dyslexics. These publications, which are unfortunately all too rare, generally combine increased line spacing (up to 1.5) and inter-letter (and therefore inter-word) spacing increased by 1.2 to 2.5 points. By recreating this reading comfort for dyslexic people, the Lili lamp makes all publications accessible on all media.

Thanks to the prolonged use of the Lili lamp, **66.5%** of our beta-testers describe a **gain in visual comfort and a reduction in fatigue** linked to the reading task:

- “I am more concentrated”
- “Reading becomes easier, I'm less tired”
- “Gain in visual fatigue, even on screen and when writing”
- “I retain sentences better, no need to reread”.
- “He used to read for 15 minutes in the evening, now he reads for up to an hour”.
- “I am less tired in the evening””
- “His motivation to work has increased with his "magic" lamp.”



Although not measurable through calibrated tests, these returns in terms of reduced fatigue and increased comfort are nevertheless extremely superior (66.5%) to a placebo effect (15 to 30%).

Indeed, relieving the cognitive-attentional cost of the reading task is one of the main objectives of speech and language therapists in the context of dyslexia, so that the dyslexic person can invest this resource in other processes (comprehension, memorisation, learning, etc.).

Of the **78% of positive feedback on the effectiveness** of the Lili lamp, **65%** reported **cumulative effects**.

The wow effect in visual perception is necessarily reflected in improved fluency and reading accuracy, just as improved fluency will, in a second stage and in accordance with the literature, lead to a gain in comprehension and fatigue (attentional reservoir).

Among the 65% cumulative gains, we note: 8.7% in perception and fluency
4.3% in perception and fatigue 13% in fluency and fatigue
39% in perception, fluency, and fatigue.

Other gains are also cited:

- reduction in ophthalmic migraines
- improved vision in left-right visual scanning as if not wearing progressive lenses
- improved writing and spelling
- improved reading of numbers and large numbers
- better memorization of the information read
- clear extension of reading time.

BEHAVIORAL EVOLUTIONS

The behavioural changes presented should be considered in the light of the dates of the beta-test: it took place at the end of the school year (May to September 2021), coupled with schooling disrupted by the health crisis.

Nevertheless, following the use of the Lili lamp, and therefore the preservation of the cognitive-attentional reservoir, **29%** of the beta-testers said they were **more motivated**, **21%** said they had **more energy** and **enthusiasm** to start reading (and to work, often associated...). "I'm less reluctant to get started" (on homework after the school or study day), "my concentration is increased", "he is more organised, more focused, it's less difficult to get started" (on homework).

25% mention a **gain in self-confidence**, which is perfectly logical: the improvement in reading leads the dyslexic person into a positive spiral, both with regard to him/herself ("Ah, I can do it!") and with regard to others (one mother describes a better recognition of her child by his/her peers, as if the school handicap, once made visible by the compensatory tool AND the realisation of the real abilities of the beta-tester, was finally accepted and recognised by the other children).

This gain in self-confidence was perfectly explained in October 2020 by Dr Michèle MAZEAU, a re-education doctor and specialist in cognitive development disorders in children: "The main task (learning target) can be successful if the child is freed from the accessory, dysfunctional task. Thanks to his compensatory tool Lili, the dyslexic person regains his or her true learning capacity.

PERSPECTIVES

In addition to the Wow effect, the improvement in reading speed/fluidity, the reduction in fatigue/gain in comfort, several elements cited by our beta-testers remain to be explored:

- The time saving in writing ("I write faster in dictation with my Lili") seems consistent, writing being the reversibility of reading. An improvement in graphics was also reported by 3 beta-testers.
- The overall visual improvement on other media than writing was reported to us, since children and teenagers use their Lili lamp to practice fine creative activities (Diamond painting, video games on smartphone).
- A beta-tester wearing progressive lenses reported a better visual perception of the written word thanks to her Lili lamp ("it's as if I no longer had my progressive lenses which, without the lamp, make it difficult for me to follow lines from left to right").

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Pour tout renseignement complémentaire relative à ce bêta-test ou à la lampe Lili, nous vous invitons à prendre contact avec :

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