



Cognizance teaches students how the brain works, what rules guide its function and how to leverage these rules in study and life. It is designed to help students take agency over their own thinking, learning and self-management practices.

The program is delivered in collaboration with educational neuroscientist Dr Jared Cooney-Horvath (University of Melbourne). Through a series of lessons called 'Hacking the brain', students explore the basics of metacognition, neuroplasticity, the role of memory and more.

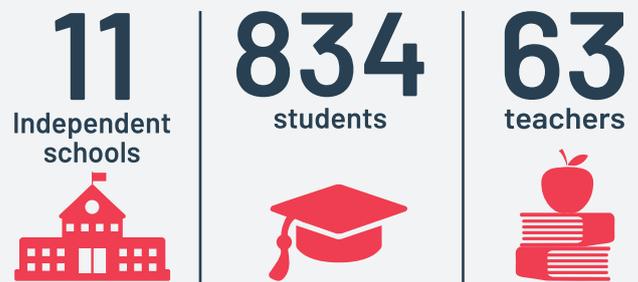
We surveyed students and teachers before and after they participated in the program. Here are our findings about the impact of the program.

## Program structure

Four 60-90 minute metacognition lessons and a follow-up session were facilitated by Dr. Horvath

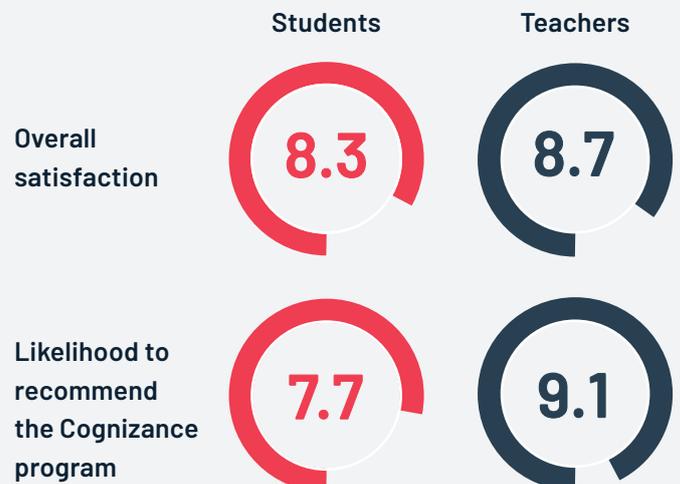


## Cognizance in 2020



*"I've learnt lots of new interesting information about how our brain works and what we can do to improve our performance. These skills are important all throughout life and I'll continue to assess and then adapt in the future."*

*"I have realised that I control my brain and it doesn't necessarily control my thoughts. By realising this, I have found it easier to believe in myself and be more open to challenges and new experiences."*



Rated from 0-10 (asked in the post-program survey)

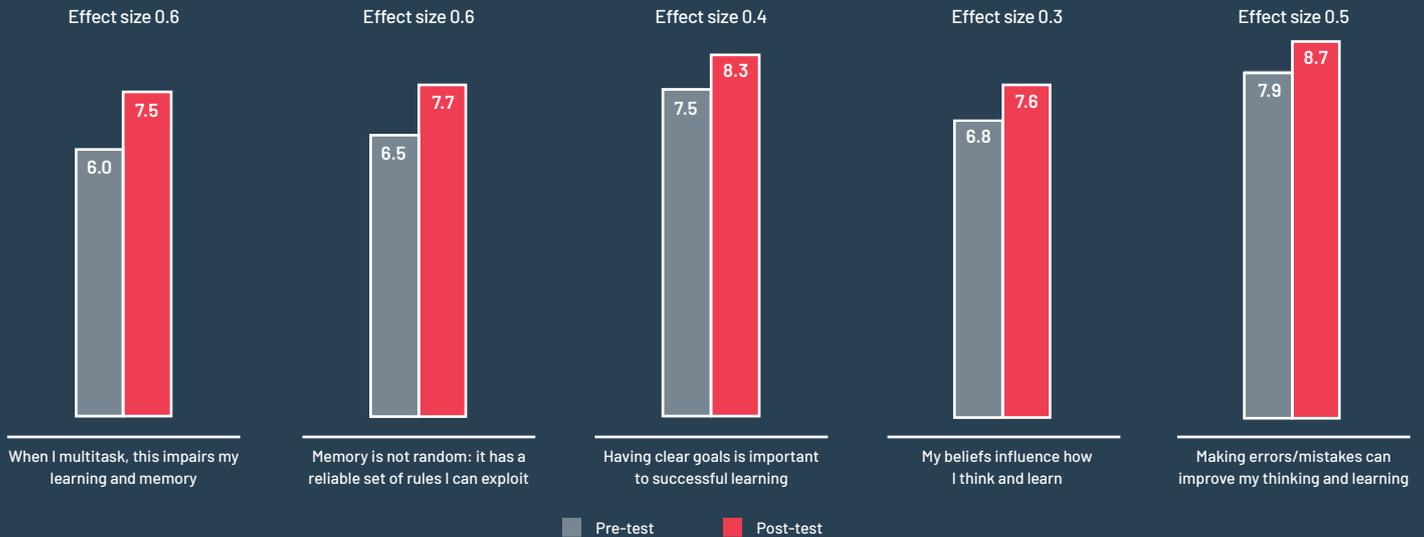
### Methodology

Pre and post evaluation survey of students n=531, teachers n=52  
Surveys conducted no more than two weeks before and after the program.

*"Thank you to ISV for this very valuable and insightful program. This is a very important program to promote well into the future for both staff and students."*

# Students

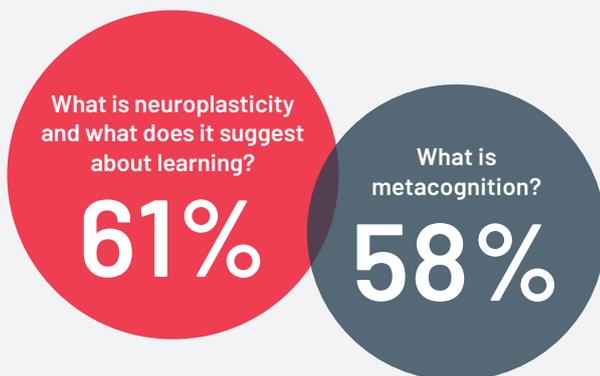
## Top five differences between pre- and post-program surveys



Effect size is a quantitative measure of the magnitude of the experimental effect. The larger the effect size the stronger the relationship between two variables. Cohen's d test was computed to measure the effect size between two means. Generally, a small effect size is <0.20, a medium effect size is 0.40, and a high effect size is >0.60.

## Understanding of neuroplasticity and metacognition

### Percentage of students who improved post-program.



Open-ended statements (asked in the pre and post-survey)  
Students' answers assessed using a rubric (criteria based on how well they conceptualise and support their argument)

## How has students' thinking about themselves, their brain and their learning changed?



*"My results have improved because I know how to study effectively now."*

*"I have taken an interest in effective study techniques so I can make more progress with less effort."*

*"I now have a better understanding of how to control my anxiousness especially when it comes to a test."*

## Students' perception of the program



On a scale of 0-10, students rated how likely they are to agree or disagree with the following statements.

# Teachers

## Teachers' perception of the program



On a scale of 0-10, teachers rated how likely they are to agree or disagree with the following statements.

**How has teachers' thinking about themselves, their brain and their learning changed since the beginning of this course?**

*"I feel more empowered to make changes and I feel much more aware of how my thoughts and actions can make those changes. I also feel more knowledgeable about the processes of learning and memory, which will benefit not only me but my family and my students."*

*"I felt empowered in discovering that I was able to change the way I approached a challenge or problem by shifting my perspective and being more 'methodical' and intentional about my approach. It was almost as if I stopped 'judging' myself and was able to feel more confident in tackling problems, knowing that a solution could be found, even if it wasn't found right away; that the 'wrestling' with the problem was where the growth occurred."*

**What are the main benefits to the school from participating in this project?**

*"Student investment in the program far surpassed my expectations. They were gripped and absolutely considered the wider implications of the material and how this related to their lives. We also had excellent buy-in from parents, who were very grateful for their daughters' involvement."*

*"Shared understanding between parents, students and teachers. Shared excitement in the learning (was great to see teachers who had heard the staff room buzz come to the student sessions, even if they were not participating directly in the project."*

*"Embedding metacognition into the culture of the school. It's great to hear the students talking with each other about how they think and imparting these truths to older and younger students. Thank you so much. The program was such a godsend in an unpredictable and unprecedented year."*

More information

[is.vic.edu.au/cognizance](https://is.vic.edu.au/cognizance)