2024 Global Educator Survey

## THE STATE OF TEACHING & LEARNING

Introduction

During 2023 COGx surveyed approximately 1,000 educators globally. Our goal was to better understand their perceptions on learning as well as what they need to succeed as educators. The similarities in their responses were striking, despite the intentionally diverse pool of educators we surveyed.

We have consolidated the responses into 14 themes captured in 39 charts. When appropriate, we've mapped these responses to findings from academic research. As you read through them, we hope it inspires you to reflect on how you'd respond as an educator or how your faculty would respond. At the end of this report, we offer our perspective.

Educators unanimously agree that an education succeeds when it develops students who know how to learn…

99%
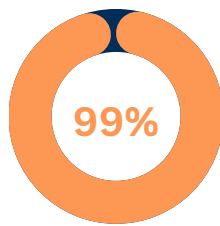
of educators agreed that **education** is useful when we can **apply what we learn to real life.**

100%
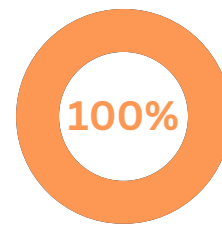
of educators emphatically agreed that a **successful education** produces students who become **lifelong learners.**

- An education succeeds when educators graduate out of a learner's life and student's never graduate from the act of learning (COGx, 2020).

- Learning occurs when teachers see learning through the eyes of students and help them become their own teachers' (Hattie, 2015).
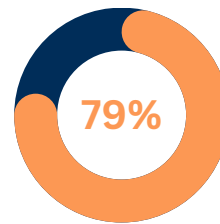
Academic performance is not evidence of learning. With proper training on the Science of Learning, we can reframe instruction and assessment to promote mastery and learning.

86%
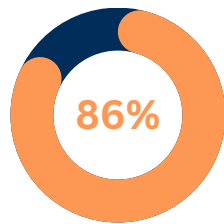
of educators claimed that **academic performance is not evidence** of a **learning** that is deep, durable or transferable.

79%

of educators shared they primarily **measure** their students' learning through tests that evaluate **academic performance.**

- Metrics create incentives. Assessments and grades are inadequate tools that fail to promote mastery or learning.

- Grading students on materials they forget isn't as useful as developing their ability to learn or ensuring they master what they are taught.

- Educators are ill-equipped to teach for learning and mastery. Consequently, schools are producing graduates ill-equipped for college or life.
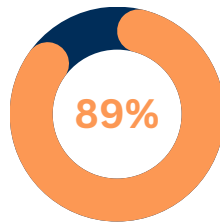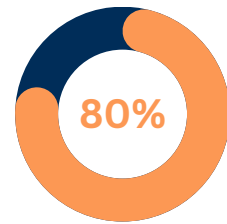
…yet, schools don't teach their students how to learn effectively.

94%
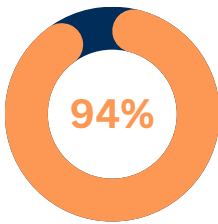
of educators agree that learning is a scientific process, and that **for students to learn optimally they must be taught how to learn effectively.**

89%

of educators said that most of their **students don't know how to learn in an optimal way.**

80%

of educators said that most of their students **don't know how to apply encoding techniques or retrieval strategies** when they learn.

- Learning is a scientific process, and for students to learn optimally they must be taught (Bjork et al., 2013). This is true regardless of cognitive abilities and disposition towards learning.

- We know that a truly effective learner needs "[to] engage in activities that foster storage of new information and subsequent access to that information.." (Bjork et al., 2013).
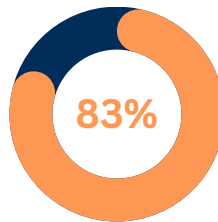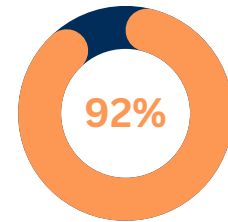
As a result, myths that harm learning prevail in our school systems.

80%

83%

92%
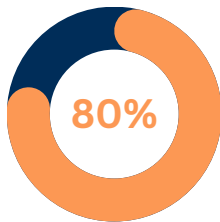
I know the **different styles of learning** (Visual, Kinesthetic, Auditive) and I apply them in my teaching.

I **differentiate instruction** for students who are **right hemisphere** dominant as well as for those who are **left hemisphere** dominant.

I'd rather develop **creativity** and **critical thinking** in my students than their memory.

- 9/10 of teachers around the world believe the learning styles myth (Newton & Salvi 2020).

- Teaching should not be informed by myths which hinder learning.

- The lack of knowledge about the optimal way to learn and the scientific principles that support learning leads educators to base their teaching around myths.
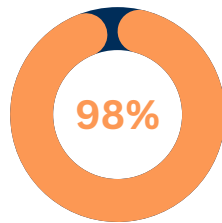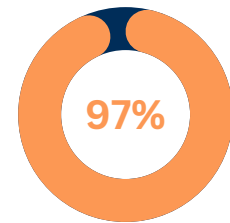
While there is unanimous agreement with the importance of inclusion and personalization, there is a need for explicit direction for how to do it.

100%
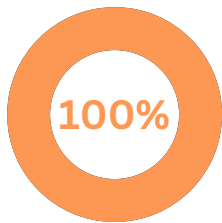
of educators said that they believe it is **important to personalize** instruction while being inclusive.

98%

of educators claimed that in order to do this we **must understand cognition** and the optimal way to learn.

97%

of educators knew that each **student** has a **unique cognitive profile**.

- Learning is a cognitive process. Every learner has a unique cognitive profile.

- To personalize, educators must have a deeper understanding of the cognitive skills their students rely on to learn alongside tools to personalize based on the cognitive diversity inherent to every classroom.
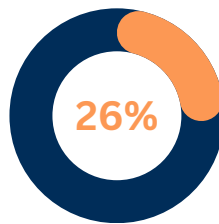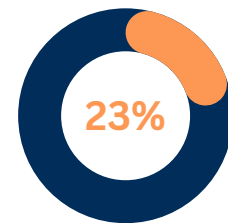
To personalize we must understand cognition and each learner's unique cognitive profile

33%
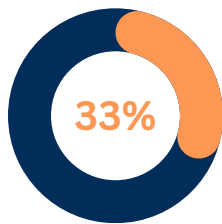
of educators said that they **measure** the **cognitive skills** of their students and personalize instruction accordingly.

26%

of educators claimed they know how to identify a **twice exceptional** student and how to personalize their instruction for them.

23%

of educators claimed they know how to identify **dyslexic students** and how to personalize their instruction for them.

- Dyslexia affects up to 1 in 5 people,. Yet, over 80% go undiagnosed and are inadequately supported in school leading to increased anxiety, depression, misbehavior and self-medicating.

- Approximately, 10% students are twice-exceptional (2e), yet none of the educators were able to define 2e or explain how they would personalize.
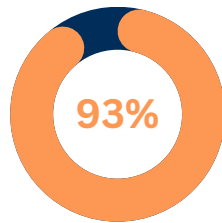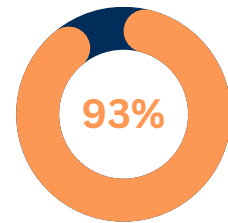
Educators want training and tools to better serve their students.

95%
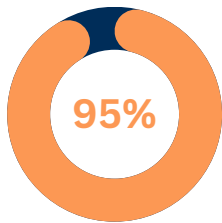
learning would improve if they were **trained to identify** learning differences alongside approaches to personalize instruction accordingly.

93%

of educators said they **need** more **evidence-based tools** to personalize teaching based on students' cognitive profiles.

93%

they would like to **learn how to personalize instruction** for twice-exceptional students and dyslexic students.

- It is thanks to the work of neuroscientists that we better understand the brain's ability to structurally change in response to learning (Maguire et al., 2006; Chua et al., 2009; Taya et al., 2015).

- The brain changes constantly in response to our environment and the tasks we face (Burns, 2015; Doidge 2007).

- Without an intervention to interrupt negative outcomes, the past is not going to correct itself, and the future is going to be a product of this (Luchins & Luchins, 1990).

It is obvious to educators that learning is a cognitive process, which is affected by our emotional experiences. Yet, few know how to support the emotions that underpin learning.

95%
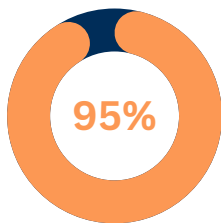
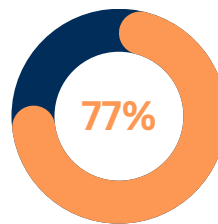of educators said that **education** is an emotional process and that **emotion** can affect **cognition**.

77%

of educators admitted that despite understanding the effect of **negative emotions** on learning and knowing that it is a common occurrence, they didn't know **how to address** this.

- An estimated 1 out of 2 children globally (2-17 years old) suffers some form of trauma each year (World Health Organization).

- It is important to equip teachers with knowledge and tools on how to handle emotions in the classroom and how to work with students who have experienced trauma as this is sadly a common occurrence that adversely affects learning.

Schools who develop their students metacognition produce students who are up to a year ahead in academic progress than their peers.

95%
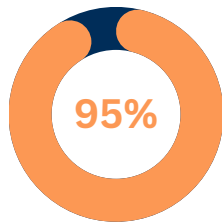
of educators agreed that when it comes to learning, **metacognition** can be just as important as **intelligence**.

98%
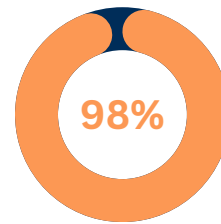
learning would **improve** for students if we incorporate **strategies** to **strengthen metacognition**.

- Metacognition is a student's ability to monitor and adjust their learning.

- John Hattie's meta-analysis conducted across 95,000 studies involving 300 million students, internationally, found that metacognitive strategies were the most impactful strategy to maximize learning (Hattie, 2015).

The basis of creativity and critical thinking is our knowledge, which is dependent on our memory. However, memory is often misunderstood because it is frequently associated with rote learning.
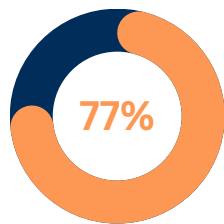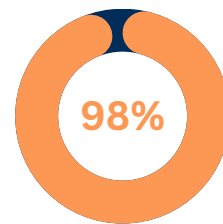
77%

of educators still acknowledged that through **memory** we acquire **knowledge** that is necessary for **critical thinking** and **creativity.**

98%

of educators said that **learning** would **improve** for their students with **training** on how to incorporate **retrieval strategies** to their teaching.

- We know that truly **effective teachers** know how to engage their students "in activities that foster storage of new information and subsequent access to that information." (Bjork et al., 2013).

- We know that a truly **effective learner** needs"[to] engage in activities that foster storage of new information and subsequent access to that information." (Bjork et al., 2013).

For information to become knowledge, we must attend to it. However, research suggests attention spans are getting shorter and educators have not been trained to capture and sustain student attention when teaching.

98%
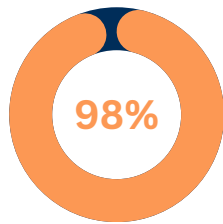
of educators said they would like to have **tools to capture** and hold their students' **attention.**
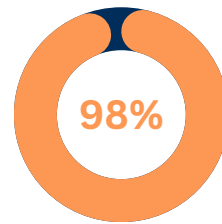
98%

of educators agreed **learning** would **improve** with **strategies** to capture and improve student **attention.**

- Sustained attention has decreased dramatically in recent years, paralleling the increase in ADHD.

- Our brains process 200x more information than we did one generation ago.

Attention is one of the three processing skills along with working memory and processing speed. These skills are foundational to learning, however, it is not well known how to teach in a way that doesn't overwhelm students.

42%
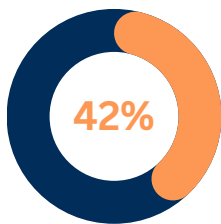
claimed to have tools to **strengthen** and improve their students' working memory.

99%
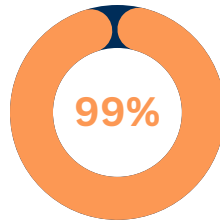
of educators stated that learning would improve with training on strategies to improve and strengthen working memory.

98%
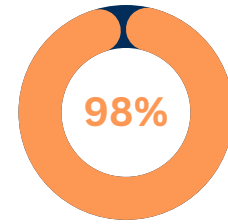
of educators stated that they would like to learn about working memory and how it influences their students' learning.

- While memory and attention are well-known cognitive skills for educators, others might be more obscure. That seems to be the case with working memory.

- Traditional teaching tends to overload auditory working memory which hinders learning.

Slow or fast processing speed can cause impulsivity, careless mistakes, frustration, anxiety, and even inattentiveness. These differences cannot be invisible to educators if they are to personalize effectively.

33%

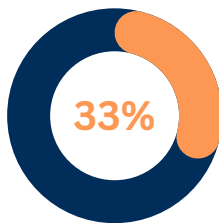of educators said they had the proper **tools** to **differentiate** teaching based on the differences in student processing speed.
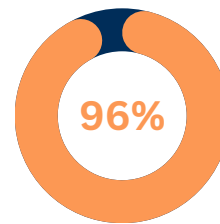
96%

of educators stated that **learning** would **improve** with proper **training** on addressing various processing speeds.

- If students have fast processing speed, they may become inattentive because they no longer have anything to attend to. Conversely, student's with slow processing speed may develop anxiety and impulsivity.

- Differences in processing speed are guaranteed in every classroom, yet few educators have training on how to effectively identify and personalize accordingly.

Educators rely on multimedia to teach; few have been trained on how to apply learning science to prevent cognitive overload, which prevails and undermines learning.

92%
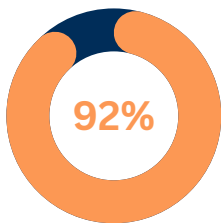
of educators said they **use multimedia in their classes.**

28%
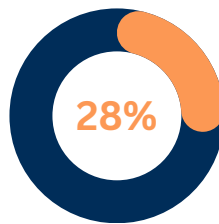
of educators claimed that they had been **trained in multimedia learning.**

91%
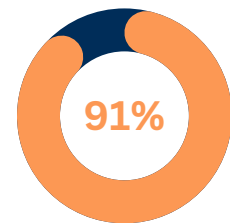
of educators said they would like to be trained in **dual coding** for their **teaching with multimedia.**

- Providing both visual and auditory information helps students understand better.

- Humans are limited in the amount we can process at any given time.

- Humans have two separate channels for processing visual and auditory information.

Educators need and want to be trained on how to improve the learning experience of their students...

95%
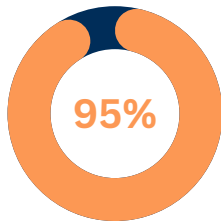
of **educators** said they **wish they had more tools** to foster efficacious learning in their students.

73%
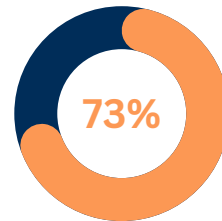
of educators claimed that the **academic training** they have received has been mainly about **institutional rules** and **policies** or their **academic specialization**.

- The traditional professional development and training provided to educators often excludes topics like cognitive skills, evidence-based tools and strategies to apply in class or the Science of Learning.

- Textbooks used in teacher training programs fail to mention and explain fundamental evidence-based teaching strategies (Learning About Learning Report, 2016).

Yet again, educators know the way forward and what is better for their students and their work.

94%
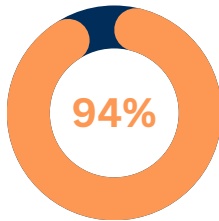
of educators said that the **Science of Learning was new** to them and that they would like to **learn more** about it.

94%
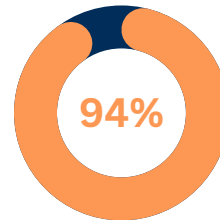
of educators stated that **teaching excellence** requires combining the knowledge of **an expert** and the **mastery of the Science of Learning.**

- "In fact, not only can we put cognitive science discoveries into practice, I believe we are ethically obliged to do so....**the benefits are so profound that inaction at this point would be tantamount to malpractice**. We have knowledge that can help them (students) realize a lifelong love of learning. It's time to put that knowledge to work." (Sarma, S., 2022).

Bringing Learning into Schooling

Schools are unique and ideal environments for students to develop their skills and ability to learn independently for life. Academic performance, while elusive, is too low of a bar and can easily be achieved as a secondary side-effect of pursuing excellence in teaching and learning. Progress is best measured by the degree to which we combine students' natural curiosity to learn with an approach that develops their skills and ability to learn. This prepares every child to meet the demands of tomorrow.

Research on human learning has flourished in academia yet struggled to permeate schools. Despite how much science has discovered about how we learn, too little has changed about how we teach, and virtually no training on how to learn is offered in schools, neither for students nor for educators. Comprehensive global studies of what leads to excellence in teaching and learning point to the Science of Learning. However, many school systems have yet to harness the rich evidence-base, missing opportunities to empower educators and students to thrive.

School systems often grapple with common challenges such as:

- academic performance and test scores,
- staff development and retention,
- equity, inclusion, achievement gaps,
- well-being and engagement
- graduation and/or admission rates.

These challenges stem from foundational shortcomings addressed by the gaps identified in this report, which are resolved by **optimizing how we teach, how we learn, and how we personalize.**

A Call to Action

COGx has worked with ministers of education, school leaders, superintendents, and universities across the world to help them optimize teaching and learning (see our Annual Impact Report). If you belong to a school system that is committed to improving teaching and learning or vested in transforming itself to one that embraces evidence-based teaching and learning, we urge you to review our annual report to see the results we achieve for our partners or contact us to explore how we might be able to support your vision.

COGx Consultation

We are happy to help you assess the learning needs of your faculty and students and provide a suitable starting point to embed the Science of Learning into your current approaches.

[Schedule a Call]

Optimize learning through science

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