the LEARNING BLUEPRINT

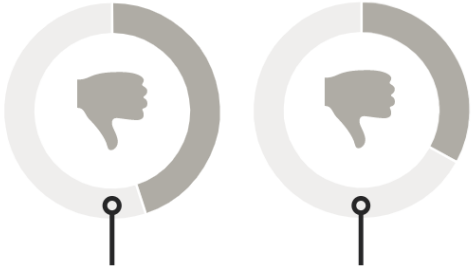
BOOSTING ACADEMIC OUTCOMES THROUGH LEARNING SCIENCE TRANSLATION

LME GLOBAL
LEARNING MADE EASY

THREE DECADES OF WORRYING TRENDS IN EDUCATION

Despite well-meaning intentions, **the past three decades of standardized, accountability-driven policy have precipitated some worrying trends in education**, including unprecedentedly high rates of teacher attrition; enduring opportunity and achievement gaps between low SES students and their more affluent counterparts; and a broadscale decline in academic engagement.

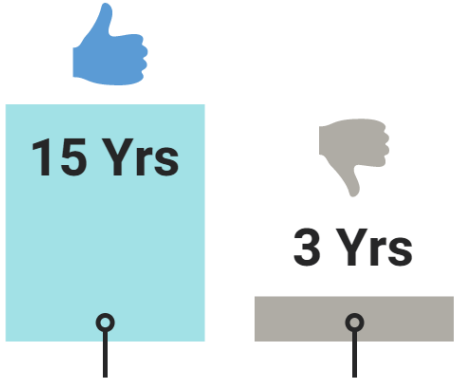
Too Many Students Are Not Engaged in the Learning Process



45%
Not engaged or disengaged

33%
Classified as success ready

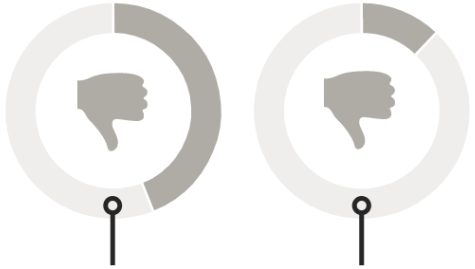
Teacher Experience Has Plummeted Over the Past 30 Yrs



Avg experience 30 years ago

Avg experience today

Only 56% of New Teachers Make It to Year Six



44%
Leave within first 5 years

10%
Leave in year one

Researchers have found that low-income students in both rural and urban settings are **more likely to be taught by an under-qualified teacher** versus similar students from more affluent areas.

SCHOOLS ARE INVESTED IN BOOSTING TEACHER EFFICACY

School leadership has rightly tried to combat these trends through **increased spending on professional development for teachers**, as 'collective teacher efficacy' is the single factor most strongly correlated to higher student achievement.

Even by conservative estimates, **American public schools are estimated to spend in excess of $18 billion per year on professional development**, which equates to an average of $5,600+ in annual spending per teacher.

A Major Study of Three Large U.S. School Districts Reported Significant Annual Spending on Teacher Development *

$18,000

Average Per Teacher, Per Year Spending on Development Efforts

6-9%

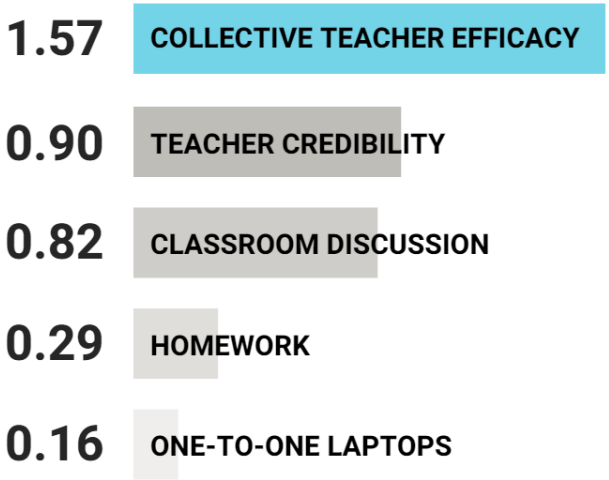
Average % of District Budget Committed to Teacher Development

19 Days

Average Annual Days Spent Per Teacher on Development Activities

** Study conducted by non-profit teacher advocacy group TNTP in 2014*
Districts surveyed employ 20,000+ teachers and serve ~400,000 students
Reported figures represent mid-range estimates

'Collective Teacher Efficacy' Delivers Largest Effect on Student Achievement



Effect Sizes Based on 1,400+ Meta-Analyses (Visible Learning)

UNFORTUNATELY, THIS INVESTMENT IS NOT PAYING OFF

Despite this massive outlay, **most teachers are merely 'marching in place' when it comes to their professional development**.

Although 90% of U.S. teachers participate in PD activities each year – mostly in the form of one-time workshops – the majority do not believe it is useful to their practice.

To meet the increasingly rigorous demands of education, **schools cannot simply do more of the same**. With regard to PD, schools should ditch the workshops (which have an abysmal track record of changing teacher practice) and instead embrace programs that measurably impact student performance.

One-Time Workshops Largely Fail to Change Teacher Practice

10%

Attendees Who Effectively Translate New Skills to Practice

90%

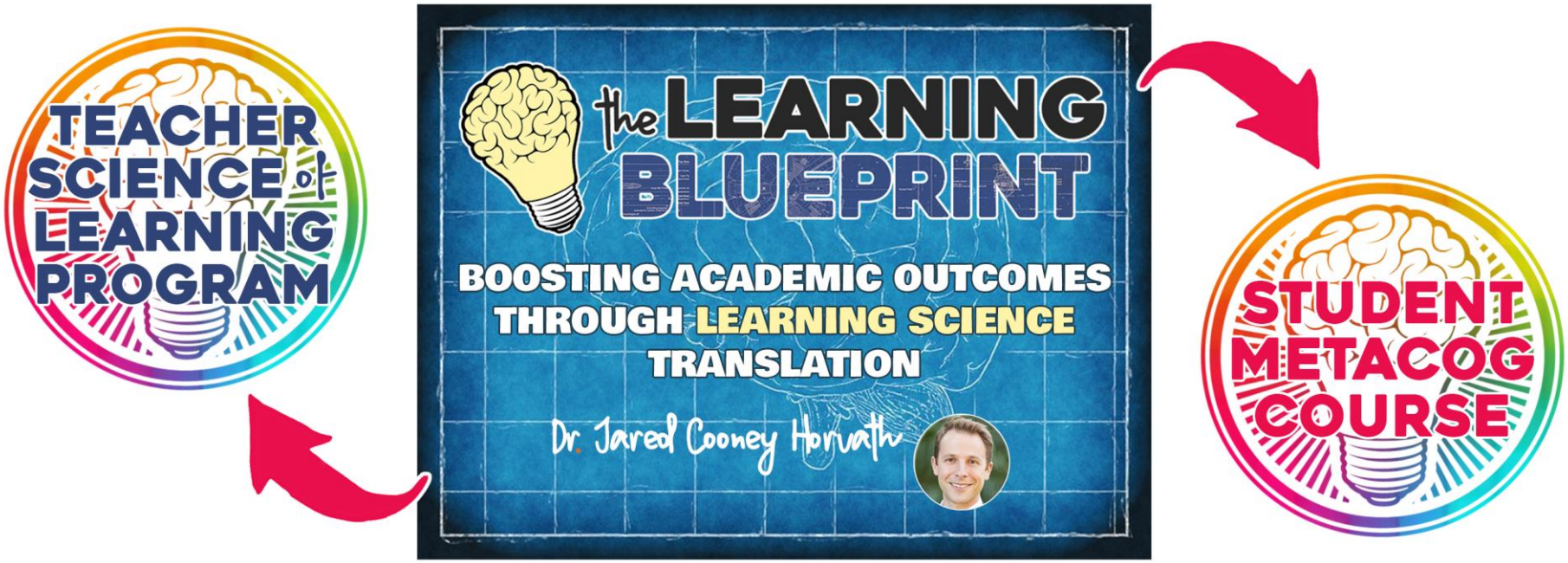
Attendees Who Leave Workshops Unchanged

Most Teachers Suffer From An 'Implementation Dip' When They Try To Apply a Newly Learned Skill In Practice

One-time **workshops operate under the faulty assumption** that the only challenge facing teachers is a lack of awareness about effective teaching practices, and that once this awareness gap is corrected their behavior will automatically change. Unfortunately, **transfer is not automatic!** Just as we can't simply 'pour' knowledge into the heads of students, neither can we with teachers.

A NEW BLUEPRINT FOR SCHOOL SUCCESS

Enter **The Learning Blueprint** …



Developed and led by leading Science of Learning expert Dr. Jared Cooney Horvath, this unique program delivers a **sustainable, high-impact professional development solution** to schools that value learning, innovation and student achievement.

Over the course of one-to-three years, **participating cohorts will build a foundation of research-based knowledge**, create shared plans for success, embed proven learning strategies, and develop an internal system for collecting and evaluating evidence.

THE BIG PICTURE

Rather than a prescriptive half-day workshop or a one-size-fits-all solution, The Learning Blueprint is an iterative process of targeted improvement. Through ongoing cycles of knowledge-building and evidence-gathering, **academic communities will identify and personalize those practices which deliver maximum impact**.

Over time, teaching cohorts will become experts in independently accessing, interpreting, and translating scientific research to guide their development. Not only will this **support collective teacher efficacy**, but it will eliminate the need for schools to rely on outside voices to decipher a once off-limit academic canon.

At its core, The Learning Blueprint is **designed to bring the Science of Learning to all relevant stakeholders, including teachers, students and leadership**. The purpose is to establish a functional commonality of language, concepts, goals and practices – an imperative first-step to driving any sort of shared cultural change.

A 2019 study evaluating edu policy found that students who attended high-schools with a **rigorous learning focus** exhibited **higher performance across numerous skills** versus students who attended comparison schools.

SCHOOLS WITH A RIGOROUS LEARNING FOCUS DEVELOP HIGHER-PERFORMING STUDENTS

- More Refined Critical Thinking Skills
- Competency in Deeper Learning Domains
- Higher Rates of Graduation
- Higher Rates of 4-Year College Enrollment

TEACHER SCIENCE of LEARNING PROGRAM

SUMMARY | The Learning Blueprint features our flagship Science of Learning program developed for teachers and educators.

OBJECTIVE | To deliver the latest and most impactful applications from the Learning Sciences, help teachers develop a deep understanding of the learning process, and introduce an adaptive, easy-to-implement framework called 'Micro Projects' that professional learning teams can use to develop pedagogical strategies and evidence.

OUTLINE | Four modules, each composed of five lessons (~60 minutes each) and two Micro Projects. Each module is designed to be delivered over one semester.

TIME REQUIREMENT | The program can be completed over 1-3 years (2 years being ideal) depending upon the speed and depth a cohort wishes to pursue.

MODULE 1

FROM THE LAB TO THE CLASSROOM

1. Foundations of Thinking
2. Learning Principles Pt. 1
3. Learning Principles Pt. II
4. Learning Principles Pt. III
5. Micro Projects

SCHEDULE: TERM 1 + 2

MODULE 2

THE LEARNING TRAJECTORY

1. Foundations of Learning
2. Surface Learning
3. Deep Learning + Transfer
4. Peak Performance
5. Micro Projects

SCHEDULE: TERM 3 + 4

MODULE 3

IMPACT TOPICS + STRATEGIES

1. Memory
2. Attention
3. Feedback + Engagement
4. Assessment
5. Micro Projects

SCHEDULE: TERM 5 + 6

MODULE 4

EMOTIONS AND WELL-BEING

1. Stress + Learning
2. Relationships
3. Individual Well-being
4. Collective Well-being
5. Micro Projects

SCHEDULE: TERM 7 + 8

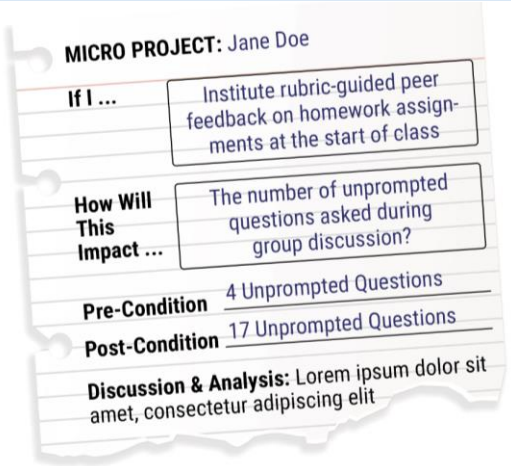
TEACHER SCIENCE of LEARNING PROGRAM

WHAT IS A MICRO PROJECT? | A Micro Project (MP) offers a practical, easy-to-use framework for teachers to test, assess, document and share pedagogical strategies that are relevant to their practice. Through this process, MPs allow teachers to:

1) **KNOW THY IMPACT** … by testing, assessing and gathering tangible evidence

2) **SHARE THY IDEAS** … by collaborating via a simple, consistent framework

EXAMPLE MICRO PROJECT



Community-driven Learning Models Like MPs Work Because they Address Many of the Shortcomings that Derail Other Forms of PD ...

EXTENDED DURATION | MPs are ongoing and iterative in nature, which gives teachers ample time to grapple with new ideas and internalize new strategies.

PEER SUPPORT | An internal database of MPs created and maintained by teachers for teachers fosters a collaborative and mutually-supportive culture.

ADAPTIVE | As opposed to rigid pedagogical instructions, MPs empower teachers to experiment and innovate, which cultivates professional agency.

COLLECTIVE UTILITY | Through standardized documentation, relevant MPs can be accessed, utilized and modified by all teachers on an 'as needed' basis.

NEW TEACHER FRIENDLY | A shared database of MPs offers experienced teachers a fast and practical tool for mentoring less-experienced colleagues.

NOTE: We will publish a Micro-Project Workbook that describes the scientific theories and research behind several common themes teachers may wish to explore (Creativity; Engagement; etc.) as well as outline numerous ideas for pre-made Micro-Projects that include scientifically validated scales and measures teachers can employ to gather evidence.

NOTE: We aim to publish a bi-annual Micro-Project Journal that features exemplary teacher MPs and translation efforts from across the nation.

TEACHER SCIENCE of LEARNING PROGRAM

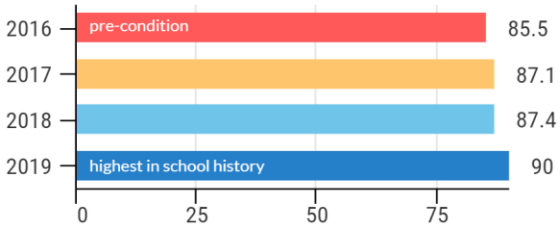
EVIDENCE OF EFFECTIVENESS | HIGH SES SCHOOL IMPACT STUDY

From 2017-2019, the teachers at Genazzano FCJ College in Melbourne, Australia participated in The Learning Blueprint program. Genazzano is a private all-girls Catholic school serving ~1,000 secondary students.

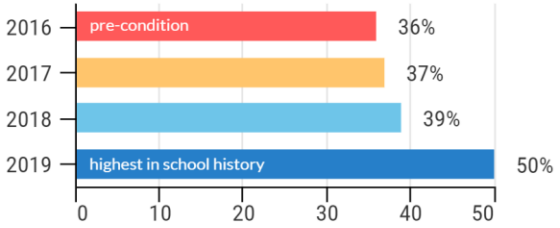
During this period, the **median student ATAR score increased from 85.5 to 90.0**, while the percentage of students who's score exceeded 90.0 rose from 36% to 50% (the highest in school history). Meanwhile, the teachers developed >260 Micro Projects.

Student Impact

MEDIAN ATAR SCORE

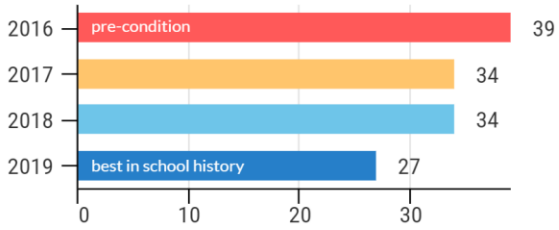


% OF STUDENTS WITH ATAR SCORE >90



School Impact

BETTER EDUCATION RANKING (AUSTRALIA)



2019 BETTER SCHOOL SURVEY (VICTORIA)

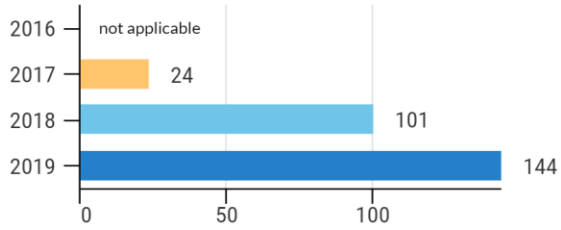
Academic Program: 8.30 (Similar School Mean: 7.48)
Learning Outcomes: 8.48 (Similar School Mean: 7.55)

2019 SCHOOL AWARDS

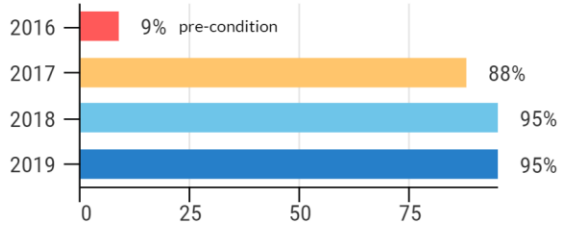
Australian Education Excellence Award: Best Professional Learning Program

Teacher Impact

NUMBER OF MICRO-PROJECTS COMPLETED



% APPLYING KEY SCIENCE OF LEARNING CONCEPTS



** Statistical data available upon request || The Australian Tertiary Admission Rank (ATAR) indicates a student's relative age-based position on a national basis (scaled from 0 to 99.9)*

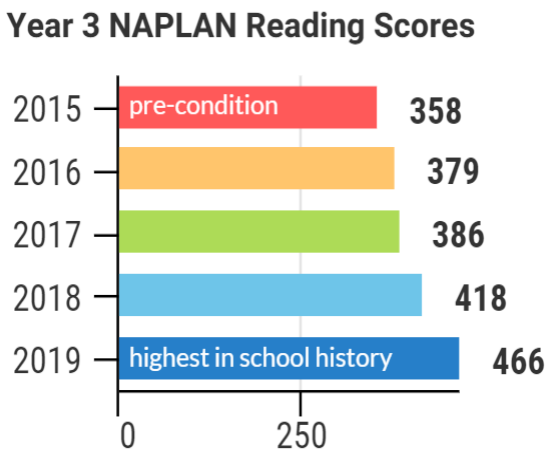
TEACHER SCIENCE of LEARNING PROGRAM

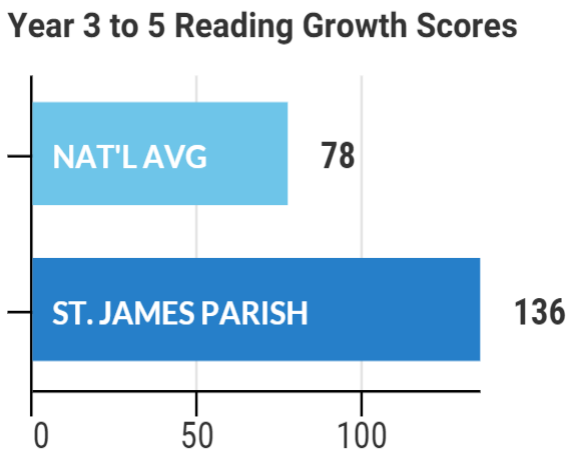
EVIDENCE OF EFFECTIVENESS | LOW SES SCHOOL IMPACT STUDY

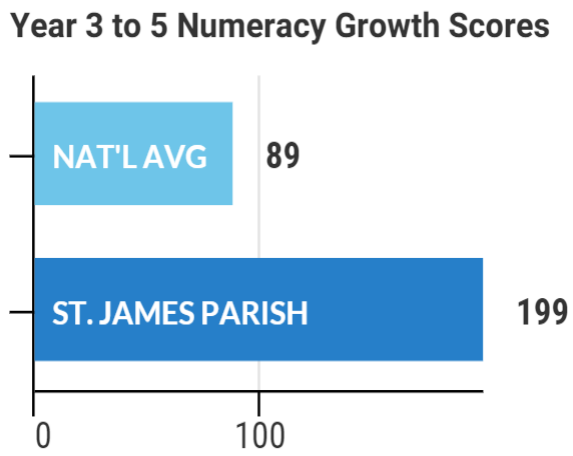
From 2016-2019, the teachers at St. James Parish School in Ballarat Australia participated in The Learning Blueprint program. St. James is a low SES Catholic school serving ~250 primary students.

During this period, **average NAPLAN reading scores increased from 358 to 466** (the highest in school history), while Year 3 to 5 reading, writing and numeracy growth scores significantly outpaced national averages. Meanwhile, the teachers developed over 100 Micro Projects.

Program Impact on Student Literacy and Numeracy Performance







** Statistical data available upon request || The National Assessment Program – Literacy and Numeracy (NAPLAN) is a national standardized test administered annually to Australian students.*

TEACHER SCIENCE of LEARNING PROGRAM

TIERED OFFER MODEL | The program is offered via a tiered access/pricing model to effectively meet the demands of a diverse international market. Each tier provides increasing degrees of access to the program features and materials, as well as to Dr. Horvath and/or certified program representatives.

FUTURE VISION | As program adoption increases, we ultimately envision offering a 'Mini-Masters' and 'Mini-PhD' module for select teachers who wish to dig even deeper into the Science of Learning and/or publish their work in the scientific literature

YEARS 1-2

1 FLAGSHIP SCIENCE OF LEARNING PROGRAM

The complete four-module **Science of Learning Teacher Program** as previously outlined.

20%

YEAR 3

2 TLB MINI-MASTERS

For teachers interested in digging deeper into the Science of Learning, this module will deliver training on how to access, interpret, and translate research literature. It is **designed for teachers who want to BE the bridge** between the laboratory and the classroom.

20%

YEAR 4

3 TLB MINI-PhD

For teachers interested in **publishing their work in the scientific literature**, this module will deliver training in basic research methods, and offer supervision and support as teachers undertake research in their own classrooms with the aim of academic journal publication.

STUDENT METACOGNITION COURSE

SUMMARY | The Learning Blueprint also includes an elective student metacognition course (Year 9 and above) that pairs with the flagship teacher program.

OBJECTIVE | To teach students the only truly future-poof skill in existence: the ability to learn with intent. Only after students take agency over their own thinking, learning, and self-management practices can they effectively become co-constructors of their educational journey.

PURPOSE | Research has demonstrated that explicit metacognitive instruction can improve learning outcomes during adolescence, a period in which academic engagement and achievement often decline. Unfortunately, global student awareness of the learning process is dreadfully low – especially among low SES students.

Data from several large-scale studies have demonstrated that explicit instruction in metacognition and the general learning process can dramatically improve numerous student outcomes ...

- Academic Performance
- Long-Term Memory Retention
- Engagement and Motivation
- Self-Efficacy

STUDENT TESTIMONIAL

"I appreciate how TLB taught me facts *and* techniques. **Learning why my brain does certain things was way more helpful** than someone just handing me a random list of study tips, because now I'm motivated to actually use them!"

Carrington | Adrian College

STUDENT METACOGNITION COURSE

OUTLINE | The student metacognition course is organized into 6 conceptual modules spanning 18 bite-sized lessons. Each lesson includes ~30-45 minutes of learning and supplemental exercises.

DELIVERY | The course can be completed 100% digitally (which provides a self-directed option for students), or delivered in a live classroom. Live sessions are led by a facilitator armed with supplemental slides, prompts and a teacher guide book.

TIME REQUIREMENT | The total course run time is between 8-12 hours. Live cohorts should complete the course over 6-12 weeks.

SECTION 1
GET YOUR MIND RIGHT

Lesson 1 | The Coder
Lesson 2 | The Predictor
Lesson 3 | Errors + Mistakes

SECTION 2
GET YOUR BRAIN RIGHT

Lesson 4 | Brain + Plasticity
Lesson 5 | Genes + Intelligence
Lesson 6 | Foundational Learning

SECTION 3
GET YOUR RULES RIGHT I

Lesson 7 | Learning Patterns
Lesson 8 | Human Metacognition
Lesson 9 | Emergence

SECTION 4
GET YOUR RULES RIGHT II

Lesson 10 | Memory - Encoding
Lesson 11 | Memory - Storage
Lesson 12 | Memory - Access

SECTION 5
GET YOUR RULES RIGHT III

Lesson 13 | Lecture Survival I
Lesson 14 | Lecture Survival II
Lesson 15 | Time Management

SECTION 6
GET YOURSELF RIGHT

Lesson 16 | Stress + Emotions
Lesson 17 | Personal Wellbeing I
Lesson 18 | Personal Wellbeing II

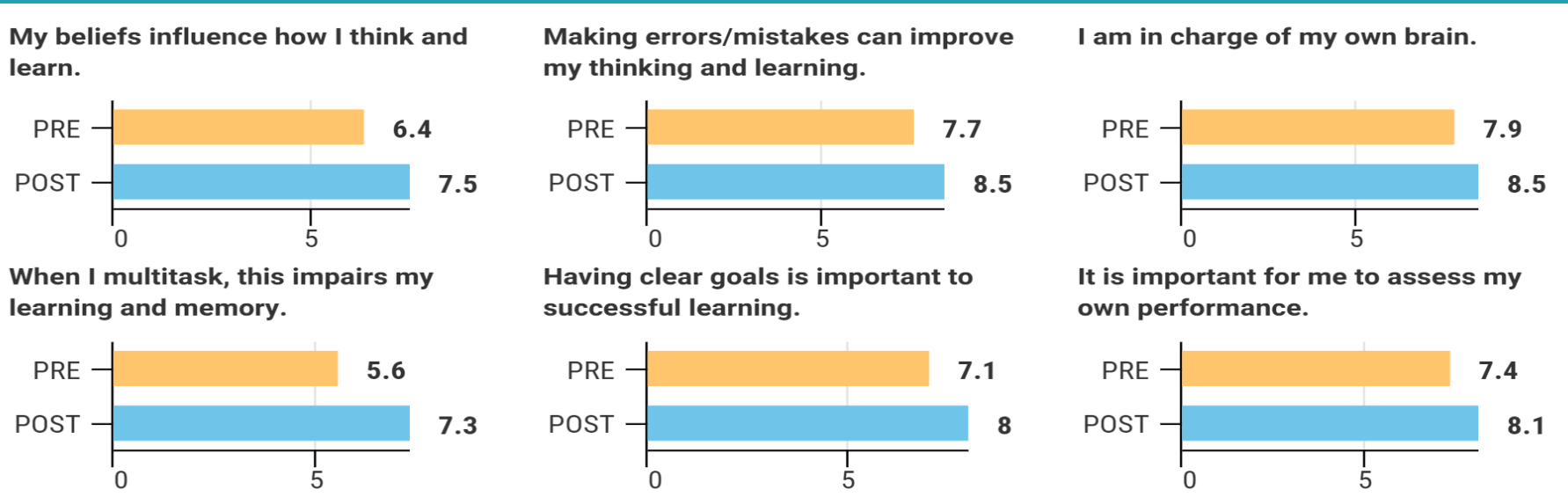
STUDENT METACOGNITION COURSE

EVIDENCE OF EFFECTIVENESS | LIVE, TEACHER-LED DELIVERY

From 2018-2020, The Learning Blueprint student course was delivered to over 1,300 Year 9 students from over a dozen schools across Victoria, Australia.

During this period, students demonstrated statistically significant growth across a range of important metacognitive-attitudes. Moreover, the one school willing to share pre-and-post term grading data reported an average **GPA growth from 3.02 to 3.19** among their ~170 participating students.

Student Impact | Average Student Evaluation of 'Learning Attitude' Statements



** Statistical data available upon request || These ratings employ a 1-10 scale (1 = Totally Disagree / 10 = Totally Agree) and reflect pre-and-post live session data*

STUDENT METACOGNITION COURSE

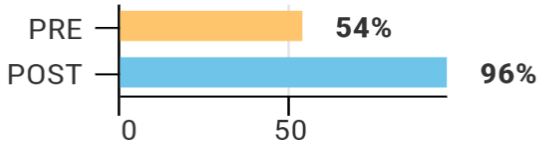
EVIDENCE OF EFFECTIVENESS | DIGITAL, STUDENT-DIRECTED DELIVERY

In the Spring of 2020 (during an extended COVID lockdown) a cohort of ~100 secondary ESF students completed an online, self-directed version of The Learning Blueprint. ESF is the largest English-medium int'l school organization in Hong Kong.

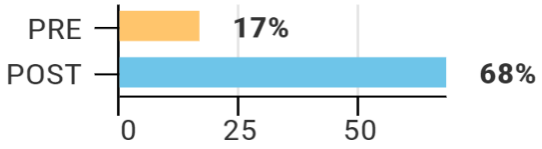
The results were very positive. In addition to showing **marked improvements in the knowledge and application of key metacognitive-strategies**, participating students posted an average score of 80% on a 12-question learning concept quiz after completing the course (versus scoring only a 46% average beforehand).

Student Impact | Collective Performance on Select Learning Concept Questions

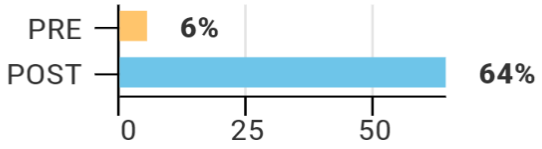
Which of the following supports deep, meaningful learning? (A: Error recognition)



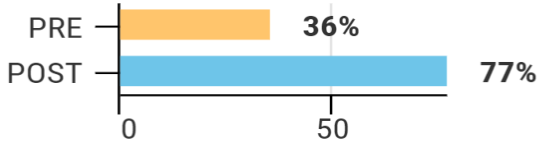
What makes mental visualization such a powerful phenomenon? (A: Neuroplasticity)



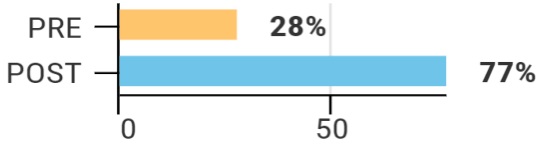
What always precedes skill development? (A: Fact acquisition)



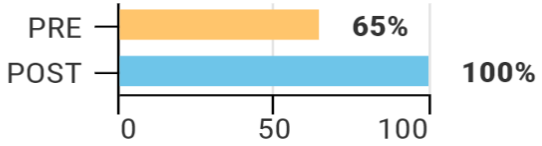
What are the three stages of memory? (A: Encoding, Storage and Access)



Which is a foundational principle of memory? (A: Recall is key for creating deep memories)



Which study activity would be best for creating deep memories? (A: Flashcards)



** Statistical data available upon request || These graphs represent % of students who correctly answered each multiple choice question pre-and-post course completion*

THE TEAM

The Learning Blueprint is owned and operated by LME Global, an education company co-founded by brothers Jared Cooney Horvath and Joe Horvath.

Jared is an educator and researcher with expertise in the areas of cognitive neuroscience, biological psychology, brain stimulation and the Learning Sciences. He earned his master's degree from Harvard University (Program: Mind, Brain and Edu) and his doctorate from the University of Melbourne (Program: Cognitive Neuroscience).

Jared has a long, proven track-record of working directly with schools from across the globe to help them achieve better teaching and learning outcomes – in both live and online environments. His wealth of relevant knowledge and direct teaching experience makes him uniquely qualified to practically translate Learning Sciences for teachers, students, educators and parents alike.

Joe is a longtime entrepreneur and business professional with expertise in marketing, finance, accounting and business analytics. He earned his MBA from the W.P. Carey School of Business - Arizona State University, and has a long background of helping various-sized businesses manage growth and performance goals.

TARGET MARKET

Our target market is **schools and learning communities that maintain specific cultural-change objectives** (i.e. deeper learning support; student agency; whole-child development; pedagogical innovation; etc.), and have the flexibility and financial capacity to invest in a multi-year program.

Because the full-version of The Learning Blueprint includes a metacognition course designed for adolescent students, it is ideally suited for secondary/high schools. However, **the main teacher program can be (and has been) meaningfully delivered to teaching communities serving students of all ages**.

MONASH University

FACULTY TESTIMONIAL

"The integration of learning theory, practice and evaluation was incredibly helpful. **The fact that I was keen to complete this module in such an intense year** is real testament to its engagement and value."

DJUKE VELDHUIS | FACULTY OF SCIENCE

MONASH UNIVERSITY COLLABORATION

In 2020 we teamed up with Monash University (ranked #48 Best Global University by U.S. News) to produce a digital version of The Learning Blueprint Teacher Program (Module 1). **Our program is currently hosted on the internal Monash PD portal**, and will be completed by several hundred faculty members this year on a pay-per-student basis. In future years Monash will be offering the remaining modules to their faculty.

COMPETITIVE LANDSCAPE

The education ecosystem is full of **organizations and advocacy groups** that do a wonderful job of bringing awareness to important ideas like Learning Sciences and whole-child development, but offer little in the way of direct implementation. The Learning Blueprint is designed to **bridge the gap between this new vision for education and our present reality**.

TURNAROUND FOR CHILDREN

XQ The Super School Project

The proliferation of advocacy and consulting groups aiming to support a new mission for education signals strong demand for a high-impact program like The Learning Blueprint.

TNTP reimagine teaching

GETTING SMART

As we continue to adapt to the demands of our rapidly changing culture, the **purpose of education is undergoing a seismic shift**. Whereas the old mission was strictly binary in nature (i.e. college or career prep), the new mission is broadly based on equipping our youth with the tools and mindsets they need to participate in a lifelong cycle of learning and contribution (i.e. whole-learner development).

Unfortunately, most teacher PD programs are steeped in an outmoded ideology – one based in grading and standardization – that fails to support this new mission. The Learning Blueprint recognizes that **as education moves forward, this trend is no longer tenable**. We should instead promote tools and methodologies that empower learning communities to carve out new, adaptive pathways for success.

OUR COMPETITIVE ADVANTAGE

Ultimately, the success of any program is contingent upon the buy-in and dedication of the participants – and fortunately most academic stakeholders are excited to commit to any program that holds the promise of **better student outcomes**.

However, commitment alone is not in-and-of-itself enough to drive meaningful change. Accordingly, we've identified **five key reasons why The Learning Blueprint has been so successful** in producing measurable results.

5 REASONS WHY

the LEARNING BLUEPRINT

PRODUCES RESULTS

1. RIGOROUS BASIS IN THE SCIENCE OF LEARNING

The Learning Blueprint maintains a rigorous commitment to instilling **foundations of learning**. This means well-characterized, well-replicated concepts supported by a wealth of brain and behavioral research.

2. PRACTICAL MECHANISM FOR PEDAGOGICAL INNOVATION

To help schools move beyond the ineffective 'workshop' model of PD, The Learning Blueprint employs Micro Projects. MPs empower teachers to undergo **interactive cycles of testing, assessing, documenting and sharing** pedagogical strategies.

3. STRATEGIC INCLUSION OF AGE-APPROPRIATE STUDENTS

The Learning Blueprint includes a metacognition course designed to **help students take agency over their own learning** and self-management practices, as well as align their interests with broader school ambitions of high-achievement.

4. ACTIVE LEARNER EXPERIENCE

Meaning making is not a spectator sport – it's an activation of the mind. The Learning Blueprint is carefully **designed to help participants experience key concepts** by conveying them through a sequence of complementary learning devices.

5. SUPPORTIVE OF WHOLE-LEARNER DEVELOPMENT

Unlike most standardization-based PD programs that aim to quantify isolated concepts and prescribe rigid solutions, The Learning Blueprint is designed to help **participants develop their capacity to lead, learn, adapt and innovate**.

THE NEXT STEPS ...

If you and/or your school have a cohort of students who would be a good fit for The Learning Blueprint, **we would love to speak with you.**

You can email us at info@lmeglobal.net -- or call us at 480-213-7494 -- and we can schedule a time to discuss.

LME GLOBAL

LEARNING MADE EASY

LMEglobal.net

SOURCES

SLIDE 2

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