THE FUTURE OF EDUCATION REPORT

2025 / 26

future design school

future
design
school

Future Design School, named one of North America's most innovative companies by *Fast Company* magazine, partners with school and system leaders in more than 65 countries worldwide to support effective and long term education transformation.

Our extensive education experience, and deep insight into the future of work, provides a unique lens that helps to inform our work inside schools. Our senior leaders serve as trusted advisors to global changemakers, and our experienced coaches have worked with tens of thousands of teachers.

Schools across North America leverage our organization for transformational strategy, acclaimed tools and resources, innovative reports and insights, sustained professional development, and our robust student programs.

Table of Contents

Future Design School **Senior Leadership Team**

SARAH PREVETTE
Founder & CEO

Sarah Prevette has developed transformational strategy for some of the country's biggest business leaders and renowned brands. Globally recognized for her work in human centered design and entrepreneurship, she is proud to work alongside an incredible team of educators to drive innovation inside schools. Prevette's organization, Future Design School, provides world-class strategy development, professional training programs and resources that empower effective leadership and personalized learning. Prevette has an illustrious history of innovation as a serial entrepreneur, high profile investor and strategic advisor to numerous organizations. She has been named by *Inc. Magazine* as one of the top entrepreneurs in North America and one of the "Top 20 Power Elite" by *Canadian Business*.

SANDRA NAGY
Managing Director

Sandra Nagy is a seasoned strategist and innovation leader with 25+ years of experience driving organizational transformation. A trusted partner to school leaders worldwide, she has designed and delivered impactful learning experiences for thousands of educators and employees. Nagy leads the Education Practice at Future Design School, forging strong academic partnerships to drive strategic education priorities, while leading a team that designs impactful professional learning and student programs. Previously, she spent over a decade at Pearson Education as a Senior Strategist and led professional development initiatives at The Learning Partnership. Sandra holds a Master's in Education from Harvard University and a Bachelor of Commerce in Organizational Behaviour from McGill University.

LESLIE MCBETH
Director of Special Projects

Leslie McBeth is an educator on a mission to answer the question: *"How might we empower students to solve the world's big problems?"* Les leverages her expertise in human centered design, education, and technology to spearhead innovative strategies and programs for schools and corporate clients. A widely recognized and dynamic public speaker, Les creates impactful learning experiences that help teachers to reimagine learning in their classrooms. She has 20 years of experience in both Canadian schools as a teacher and leader, and in international organizations in design, public policy and human rights advocacy. Les is a Columbia University Klingenstein Institute Fellowship recipient and has been the Lead Design Facilitator for the Google Certified Innovator program worldwide since 2016.

A NOTE FROM OUR **FOUNDER & CEO**

Over the past year, a quiet conversation has been happening behind closed doors in schools around the world: how do we raise the bar for students in the midst of a resilience crisis?

There is a dire need in K-12 education to quickly focus our efforts on building individual assertiveness, working to ensure personal resiliency, developing problem solving skillsets, and fostering a sense of collective responsibility to combat toxic achievement culture.

I know this is a tall order. Kids are facing a daunting future reality and are being psychologically harmed by their consumption of social media. The irony is that through some of our efforts to serve their wellbeing, we've inadvertently lowered the bar in terms of expectations inside our schools — which will ultimately erode their wellbeing completely.

Meanwhile, in an effort to protect their children from stress and anxiety, some well intentioned parents are undermining their personal agency and facilitating a victim mindset. This is a mistake that can have grave consequences in the long run.

To that end, we've taken a different approach to our Future of Education Report this year and focused exclusively on this alarming crisis, outlining the science behind the problem and sharing solutions to get our kids back on track.

One of the most serious threats to society is the growing level of apathy and rampant narcissism.

In fairness, as adults, we are doing a disservice to the next generation by modeling complacency and selfishness. Collectively, we've normalized inaction and have demonstrated hypocrisy by telling the younger generation to care while ignoring our daily habits that contribute to a general worsening of society. The hypocrisy generates cynicism and breeds a sense of entitlement: if I don't look out for myself, then who will?

All individuals need to be challenged in order to grow and develop — and they need to be conscious of their own strengths and weaknesses. We need to challenge our youth to see the world for what it is, be aware of their own minds, and not only believe in their capacity to enact change but see it as their duty.

Education is the only hope in saving the world from itself. If we don't do our utmost to save this generation, and endeavor to build true problem solvers with a sense of responsibility for the greater good, then we will all bear the cost.

Sarah Prevette, Founder & CEO
Future Design School

It's Time to **Raise the Bar**

Across North America and around the world, expectations and standards for students are declining. **We are failing our students when we lower the bar**, and now is the time to address the complacency and take action.

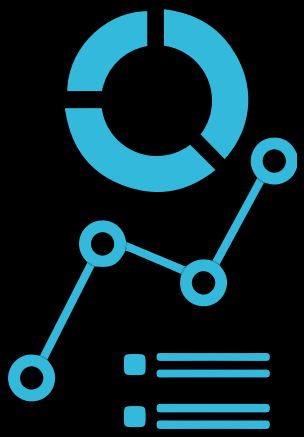
We are amidst a crisis. **There is a chronic lack of accountability and exposure to adversity in our schools, driven by the double edged sword of combatting student apathy and addressing wellbeing.** The result is an epidemic of disengagement poised to spill over into the world beyond K-12 education, as young people fail to develop the agency they will need to navigate the world.

Producing a disengaged generation couldn't come at a worse time — or with more potentially catastrophic consequences. The colliding factors of **political populism, climate change, economic instability, global conflict, and the disturbing rise in hate speech highlight our urgent need for deep, critical thinkers and problem solvers — people ready to rise to the occasion and address the significant challenges we are facing**.

What we are experiencing, however, is the exact opposite: **young people are tuning out, and their attention spans are shortening**. By lowering standards, we are creating a generation that doesn't know how to think deeply or solve the problems in front of them, but they are precisely the people who will need to solve the massive challenges plaguing our world.

One potential justification for lowered standards in many schools and districts is a focus on wellbeing. Cultivating wellbeing requires opportunities to explore one's identity, establish a sense of belonging, and, crucially, feel secure enough to take risks. For this reason, wellbeing initiatives are a cornerstone of virtually every school and district — and rightly so, given the ongoing mental health crisis impacting education. However, the philosophy and tactics behind the execution of this goal have had unintended consequences. For many K-12 schools and districts, **the notion of wellbeing has come to mean ensuring that students are shielded from stressful situations at the expense of developing resilience**.

In other words, the term "wellbeing" has been co-opted to excuse underperformance and evade responsibility. It's time to reclaim its true meaning. **Wellbeing is not about eliminating every source of discomfort — it's about using positive stress to strive for meaningful growth and to accomplish ambitious goals.** There was a time where this was a greater focus — when we used to talk about the necessity of developing "grit" — but to put it simply, we lost the plot. Now, schools need to shift (or shift back) to become environments where resilience thrives, ensuring that both teachers and students excel in the face of challenges.



It's time for schools to aim higher — setting ambitious standards for students and helping them meet those goals.

This means creating intentional opportunities in school for students to experience adversity: to be able to face challenges and potentially fail, and to learn from those experiences and eventually succeed. Resilience can only be built through the lived experience of overcoming obstacles, and the scaffolds and supports that exist in K-12 schools make them the ideal places for this vital learning to occur.

By creating environments that **encourage facing difficulties** head on, we foster a community that values effort and **sees setbacks as essential steps toward success.**

This approach is widely supported by experts, including the American Psychological Association. "Building resilience — the ability to adapt well to adversity, trauma, tragedy, threats, or even significant sources of stress — can help our children manage stress and feelings of anxiety and uncertainty," the APA writes in its *Resilience Guide for Parents and Teachers*. "However, being resilient does not mean that children won't experience difficulty or distress." Quite the opposite, in fact — **resilience is the tool needed to effectively manage those inevitable moments of distress**, and it's precisely what today's students are lacking.

An approach that leverages adversity to raise the bar doesn't mean teachers should be stressing students out on purpose; rather, **students need opportunities to experience *eustress* (or "good stress") as opposed to *distress* (bad stress)**.

As Matthew Mahavongtrakul explains, good stress "can drive productivity, creativity, and hope. It is linked to academic achievement and investment in coursework. Setting ambitious goals and having high expectations promotes eustress, resulting in a desire to achieve."

LEARNED HELPLESSNESS

Learned helplessness is a growing phenomenon that occurs when children are repeatedly exposed to situations where they feel they have no control over the outcome. This can lead to a belief that they are incapable of influencing their environment or achieving their goals.

Learned helplessness can manifest in a variety of ways, such as apathy, withdrawal, and a lack of motivation. It can also lead to children giving up easily when faced with challenges, as they may believe that their efforts will be futile. Parents and educators can help prevent learned helplessness by providing children with opportunities to make choices and experience success, as well as by teaching them how to cope with setbacks and challenges.

There is no doubt that schools today are caught in a relentless storm of crises, both local and global, that seem to batter every effort to create real change. This constant upheaval makes it difficult to focus and move forward.

How can we find a way to lead effectively when the challenges feel so endless and overwhelming that they ultimately lead to apathy?

There are several psychological reasons for this depressing phenomenon of collective apathy.

Understanding these factors is the first step towards being able to positively address them.

INFORMATION OVERLOAD

The unrelenting stream of news, opinions, and updates doesn't just cause emotional fatigue — it creates a sense of numbness and confusion about what is true or important. Instead of developing critical thinking skills, students are bombarded with a chaotic mix of opinions and information, hindering their ability to prioritize and make informed decisions.

DIFFUSED RESPONSIBILITY

The sheer number of people involved in global issues can create a sense that "someone else" — governments, experts, or adults in general — will handle the problem, causing students to absolve themselves of any personal obligation to act. This bystander effect can lead to a collective inertia, where everyone waits for someone else to take the lead, ultimately hindering progress toward solutions.

PARALYSIS FROM SCALE

The overwhelming scale of issues fosters a sense of powerlessness, leaving students feeling helpless and insignificant. This sense of powerlessness is amplified by the perceived distance of systemic problems, which can seem abstract and disconnected from their daily lives. As a result, they may disengage from important issues, feeling that their efforts won't make a difference.

NORMALIZATION OF INACTION

Indifference is contagious. When students see a lack of urgency in their peers, leaders, or systems, they are less likely to feel empowered or obligated to act themselves. Social cues shape expectations, and if inaction becomes the norm, it can feel futile to go against the grain.

DISINFORMATION BREEDING MISTRUST

Beyond scientific mistrust, disinformation creates fractured realities. When students are bombarded with conflicting narratives, they can retreat into echo chambers or disengage entirely, avoiding difficult discussions or decisions.

CRISIS FATIGUE

Frequent exposure to crises, from climate emergencies to political upheavals, leaves people feeling emotionally and mentally drained. This fatigue can cause disengagement, as students feel they lack the capacity to address yet another issue.

RISE OF INDIVIDUALISM OVER COLLECTIVISM

Today's students are often surrounded by messages that prioritize individual achievement and personal success. This emphasis on "me" over "we" can make it harder for them to connect with broader societal concerns. They may prioritize their own goals, inadvertently overlooking the collective consequences of their actions — or inaction. This individualistic mindset can lead to disengagement from the shared challenges facing their generation.

SHORT TERM THINKING OVER LONG TERM THINKING

The immediacy of daily concerns often overshadows the abstract or distant nature of long term challenges. For students, it can be difficult to prioritize issues that may seem far off or inconsequential to their immediate reality. This focus on the here and now can prevent them from fully grasping the long term implications of their choices and actions, hindering their ability to contribute to a sustainable future.

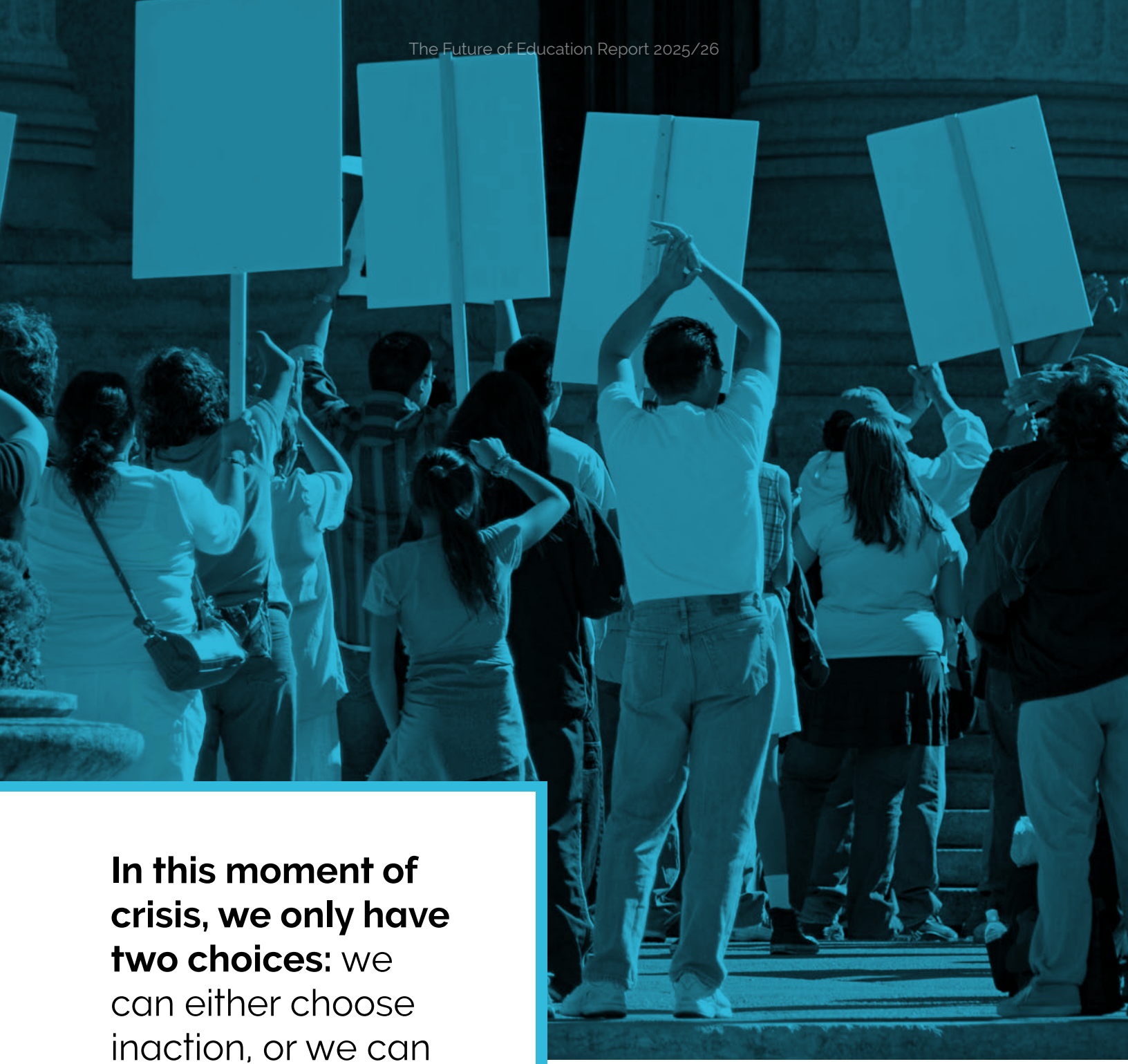
LACK OF VISIBLE IMPACT

When individuals don't see immediate or tangible results from their actions, it reinforces a belief that their efforts are futile.

For students (and adults, for that matter), a lack of feedback loops showing progress can diminish motivation over time.

OVERWHELMED BY COMPLEXITY

The intricate web of interconnected factors contributing to problems like climate change or economic inequality makes it difficult for students to identify clear, actionable steps they can take to make a difference. This sense of complexity can lead to paralysis, as students feel unequipped or unqualified to contribute to meaningful solutions.



In this moment of crisis, we only have two choices: we can either choose inaction, or we can choose innovation.

While this all sounds like a lot, as educators, we need to think about how we can work to actively combat these issues. We need to rethink what we are doing in our schools and classrooms to combat apathy with action and redouble our efforts on personal assertiveness.

Through our deep work with school and district leaders, we have identified a wide range of actionable steps to raise the bar for students, ranging from rethinking how math is taught and embedding sustained inquiry to a full reimagining of what, how, and why students learn.

The Problems

Countless writers, psychologists, academics, and educators have explored the problems and challenges that lie at the heart of being able to meaningfully raise the bar in education.

Our action research in more than 65 countries, and deep conversations with thousands of school and system leaders, point to three overarching issues: **a profound lack of resilience being displayed by students of all ages; an inability to think deeply and focus that transcends ability and resources; and a deep disillusionment with the future that hangs like a cloud of static over our classrooms.**

Understanding the depth and breadth of these problems — and the factors entrenching them in our students and schools — is fundamental in the effort to overcome them.

In this section of the Future of Education Report, we explore these **three challenges** in detail.

(To read about solutions, turn to page 32)

Lack of **Resilience & Grit**

School leaders, teachers, and parents alike observe and bemoan this fact: today's students display a shocking lack of resilience.

Although schools have long aimed to foster resilience in students, recent global studies suggest that current approaches may be counterproductive. By shielding students from challenging experiences, these approaches inadvertently hinder the development of resilience.

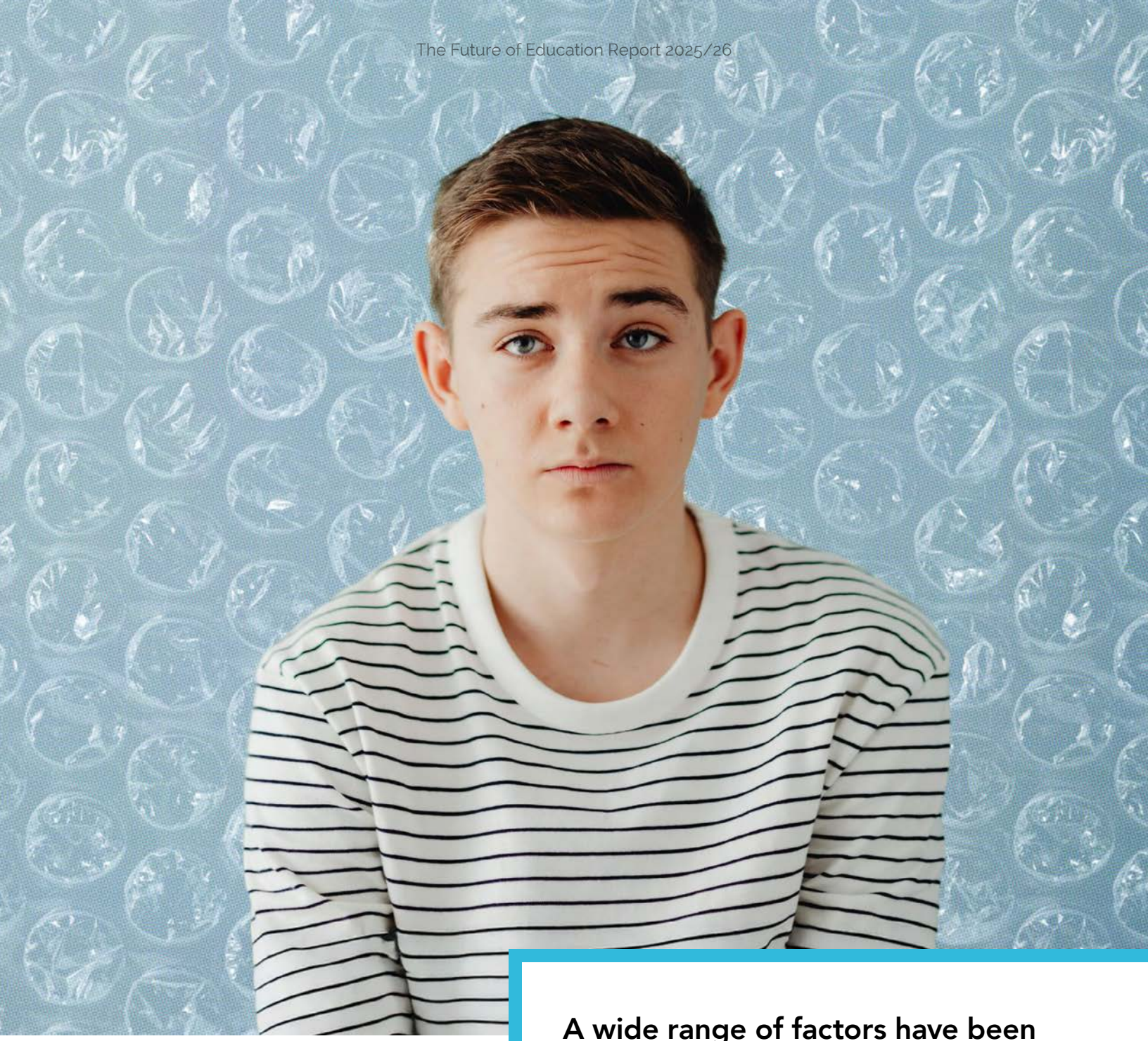
This is concerning because resilience, as neuroscientist and University of Barcelona professor David Bueno writes in a briefing for UNESCO, is "a dynamic characteristic that may change over time as a function of development and one's interaction with the environment." Put simply, resilience is a muscle that strengthens with use and exposure to challenges.

Resilience, closely linked to perseverance and grit, forms the emotional cornerstones for successful learning. The alarming decline of resilience requires immediate action to build this capacity in current students.

People who persevere face obstacles as hurdles to be overcome on the way to growing up. It is an attitude that equates challenges to opportunities that make you better and stronger once you have dealt with them.

In other words, it equates to a growth mindset. Psychological relationships between these three characteristics (i.e. resilience, perseverance, and grit) have been reported in young people recruited from a student population, in relation to pain thresholds and tolerance, as well as to optimism.

— Ashley Buckingham & Elizabeth J Richardson: *"The Relationship Between Psychological Resilience and Pain Threshold and Tolerance: Optimism and Grit as Moderators"*



Furthermore, a 2022 study of almost 14,000 Higher Education students from 18 countries found that 36% demonstrated low resilience.

These issues begin in K-12, and are escalating — students give up easily, and often struggle to manage adversity and recover from negative experiences.

A wide range of factors have been cited as *key contributors* to this problem, including:

- Misguided Parenting
- Sheltering Children from Adversity
- Poor Mental Health
- Lack of Self Awareness

Misguided Parenting

Resilience starts at home, where children learn to interpret challenges and manage their emotions. Parents are essential in shaping their child's belief in overcoming obstacles, coping with setbacks, and facing their fears.

By modeling perseverance, offering emotional support, and fostering a growth mindset, parents instill confidence and adaptability in their children.

Through everyday experiences — like navigating a difficult homework assignment, dealing with disappointment, or managing social anxieties — parents can nurture their child's ability to confront challenges and develop the emotional tools needed for a resilient life.

While it's natural for parents to want to shield their children from discomfort, Dr. Eli Lebowitz at Yale emphasizes that excessive protection can unintentionally validate a child's fears, signaling that challenges are insurmountable. Ultimately, writes Lebowitz in a paper about fostering independence, "parental accommodations reinforce the avoidance [of difficult situations and tasks] and lack of self-efficacy."

This well meaning approach can undermine the child's autonomy and prevent them from gaining confidence to solve problems independently. Instead, fostering resilience requires parents to strike a balance — offering support and guidance, while stepping back enough to let children navigate and learn from difficulties. By doing so, parents enable their children to experience the small but significant victories that build a robust sense of self efficacy and emotional strength.

Students who are overly shielded from challenges or failures are less likely to develop the coping skills to navigate setbacks. This "overparenting" (think helicopter, snowplow, velcro, bubble wrapping, etc.) or micromanaging reduces opportunities for independent problem solving and the growth of resilience.

One highly visible manifestation of misguided parenting is Toxic Achievement Culture, which pushes kids to believe their worth is tied to grades, trophies, and college admissions.

This constant pressure from parents fuels anxiety, burnout, and a fear of failure. Instead, kids need to know they matter for who they are, not just what they accomplish.

Author, psychotherapist, and anxiety expert Lynn Lyons cautions parents to nip this behavior in the bud for the sake of their children's development. "We want kids to grow into young adults that are good problem solvers," Lyons said in "How to Raise Problem Solvers," an episode of her popular *Flusterclux* podcast. "The downside of not allowing kids to problem solve is that their perception of themselves becomes that they're incompetent or they're incapable. **They can't figure things out when adults step in quickly and don't give kids the opportunity to try things out**, and get themselves out of difficult situations."

School leaders have told us about every imaginable manifestation of this issue: parents challenging grades, completing their child's homework, encouraging plagiarism, interfering in extracurricular activities, making unreasonable demands of a teacher's time and attention, and even faking psychological assessments to gain diagnoses that provide their children with unnecessary accommodations.

> ***It is important to note here that although some parents may overstep boundaries in their children's schooling, this should not overshadow the needs of students who genuinely require extra assistance.***

These kinds of practices are hugely problematic. **"Parental overprotection has been shown to foster unhealthy coping mechanisms in children"**, writes Simon Sherry, Dalhousie University professor in the Department of Psychology and Neuroscience. "It is natural to want to avoid problems, but avoiding things that bring us discomfort can reinforce a belief that we cannot handle certain issues and, over time, make us less capable." Overparenting conveys to children that the adults in their lives lack confidence in their abilities, which can hinder their resilience development.

Author, psychotherapist, and interfaith minister Nancy Colier agrees. "We no longer view difficulty and discomfort as normal parts of life that offer opportunities for growth," she writes in *Psychology Today*. "While a dismissive admonishment to 'suck it up' doesn't help children to develop an emotionally healthy internal life, treating every irritation and struggle as something that's monumental, shouldn't exist, and must immediately be fixed — might not be the right solution either. Perhaps **the work, for now, is in parents learning to tolerate our children's discomfort — and our own as well.**"

Understanding the root causes of overparenting is critical to leading change.

In other words, parents need help so that they, in turn, can help their children.

One significant factor, according to Parents Under Pressure (a 2024 advisory from the office of the U.S. Surgeon General), is parental stress. "Throughout their lifespan, parents and caregivers often face heightened stressors, including financial strain and economic instability, time demands, concerns over children's health and safety, parental isolation and loneliness, difficulty managing technology and social media, and cultural pressures," says the report. "Parental mental health conditions can have far-reaching and profound implications for children, families as a whole, and for society, including increased health care costs and reduced economic productivity."

In addition to overprotection from failure, there is risk inherent in heaping excessive praise on children, particularly when they demonstrate intelligence.

American psychologist Carol Dweck, the foremost authority on resilience and growth mindsets for two decades, believes this is a harmful practice. "Kids praised for intelligence curtail their learning in order to never make a mistake, in order to preserve the label you gave to them," Dweck said in an interview with OneDublin. "Students praised for the process they engaged in — their effort, their strategies, their focus, their perseverance — these kids take on hard tasks and stick with them, even if they make lots of mistakes. They learn more in the long run."

Sheltering Children from Adversity

Resilience comes from facing challenges.

This is true at home and school, where kids need a chance to tackle real problems. If they don't have opportunities to work through difficulties, they won't develop perseverance or self efficacy — the belief that they can succeed. This belief is key for staying motivated, building resilience, and having a positive outlook when things get tough.

When children are given the **opportunities to persevere** through difficulties, they **develop confidence and problem solving abilities** needed to tackle future obstacles.

For example, consider a child struggling to master a new skill — whether it's tying their shoes, mastering a sport, or memorizing multiplication tables. With patient encouragement and guidance, they continue to practice, and eventually, the skill is mastered. This child isn't simply learning a new skill; they are developing resilience and internalizing the invaluable lesson that persistence and hard work pay off. This experience becomes a powerful foundation, equipping them to face future challenges with confidence — be it academic setbacks, social difficulties, or personal trials.

Without the opportunity to confront and overcome challenges, children may struggle to build confidence in their own abilities.

As we shelter students from adversity, we can also erode their mindset, pushing them to be more deficit based in their thinking. What we know to be true is that keeping **a strengths based, or positive mindset, is the key to building resilience**. When children are encouraged to view challenges as opportunities for personal growth, they are more likely to develop a resilient attitude. This mindset helps them approach difficulties with a sense of purpose and motivation rather than fear or avoidance.

Whether choosing a career, managing relationships, or making major life decisions, students need the confidence to face uncertainty and adapt to changing circumstances. These skills are critical for addressing our time's larger challenges — including climate change, social inequality, and economic uncertainty. Opportunities to solve meaningful problems help students to take ownership of their futures and contribute to solutions for the world's most pressing issues. Schools are meant to prepare students for life, but without engaging opportunities for meaningful resilience development, **we risk fostering a generation unready to meet personal and societal challenges**.

Poor Mental Health

There is unquestionably a mental health crisis happening in our schools.

Its causes and symptoms are widespread; in *The Anxious Generation*, Jonathan Haidt tracks the global decline in youth mental health of the 2010s back to the 1970s, when safety concerns started to erode what was then a more "play-based" childhood.

Parental supervision increased alongside decreases in the amount of time young people spent with one another, and then, thanks to the rise of smartphones, "**Childhood transformed into something unrecognizable.** And it has caused an epidemic of mental illness among our youth."

Schools everywhere have seen the real time impact of declining mental health.

The *Youth Risk Behavior Survey Data Summary & Trends Report* by the Center for Disease Control and Prevention found that, in 2023:

40% of U.S. high school students "had persistent feelings of sadness or hopelessness"

20% considered suicide

But while intervention to address these staggering numbers is urgently needed, there is research emerging that suggests **mental health awareness campaigns are creating a problematic cycle in schools.**

In their 2023 study, Lucy Foulkes from the University of Oxford and Jack L. Andrews from the University New South Wales in Sydney, Australia, track what they call the "prevalence inflation hypothesis" — in which, despite the benefit of awareness efforts leading to "more accurate reporting of previously under-recognized symptoms," a troubling parallel trend is emerging:

"[A]wareness efforts are leading some individuals to interpret and report milder forms of distress as mental health problems. We propose that this then leads some individuals to experience a genuine increase in symptoms, because labeling distress as a mental health problem can affect an individual's self-concept and behavior in a way that is ultimately self-fulfilling. For example, interpreting low levels of anxiety as symptomatic of an anxiety disorder might lead to behavioral avoidance, which can further exacerbate anxiety symptoms. We propose that the increase in reported symptoms then drives further awareness efforts: the two processes influence each other in a cyclical, intensifying manner."

While this is a nascent perspective, stresses *New York Times* mental health reporter Ellen Barry in a May 2024 article about the study, it is resonating with educators. "This remains a minority view among specialists in adolescent mental health, who mostly agree that the far more urgent problem is lack of access to treatment," she writes. "Dr. Foulkes said she understood that her argument runs counter to that consensus, and when she began to present it, she braced for a backlash. To her surprise, she said, **many educators reached out to express quiet agreement**."

As the dust settles on this debate, school leaders are beginning to lean into data driven decision making around student mental health, coupled with an awareness approach that not only emphasizes symptoms, but also strategies to bounce back and build resilience. **Reducing harm and addressing learned helplessness is a delicate balance**, but it's also the proactive approach necessary to reverse this troubling trend.

Lack of Self Awareness

Helping kids build self awareness is one of the most important ways we can strengthen their resilience.

When children understand their emotions, thoughts, and actions, they're better equipped to handle challenges, bounce back from setbacks, and grow.

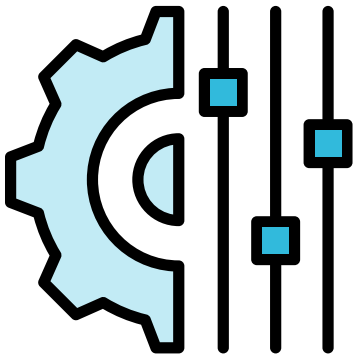
But self awareness doesn't develop by accident. In fact, certain traits like narcissism and apathy actively work against it, creating significant barriers to resilience.

Narcissism distorts reality, convincing kids they're "good enough," or that they don't need to change. Narcissists often have an **unrealistic view of themselves** and an inflated sense of self perception, making it difficult for them to recognize areas for improvement. They tend to interpret neutral information positively and ignore critical feedback, limiting their ability to develop accurate self awareness. A student who dismisses poor marks, insists they "knew the material," or blames teachers is missing key opportunities to reflect, adjust, and improve. Without intervention, this mindset breeds complacency and entitlement.

Apathy, meanwhile, can be just as damaging as narcissism. When kids disconnect and stop caring, they avoid challenges altogether. The student who shrugs off failing assignments or skips practice because "what's the point?" isn't just avoiding discomfort — they're **actively undermining their personal growth**. Over time, this emotional detachment erodes motivation, weakens relationships, and creates a pattern of underperformance that's difficult to break. The apathy paradox, as defined by psychologists at Makin Wellness, "is that while apathy may seem like an easy way to cope with difficult situations, it can limit our growth potential."

In schools, a lack of self awareness can show up as emotional outbursts, difficulty working with others, or a refusal to take responsibility for learning. For example, a child who struggles to recognize how their words affect classmates might frequently get into arguments. Another might avoid asking for help, assuming it makes them look weak, which only deepens academic struggles. These behaviors often lead to frustration, strained relationships, and academic setbacks.

When we help students develop self awareness, they're more likely to thrive — academically, socially, and emotionally. A student who learns to pause and reflect after an argument might recognize their role in the conflict and apologize, strengthening friendships. Another who tracks their emotions during the school day may start to notice patterns — like getting frustrated before math tests — and learn calming strategies to manage stress. These small shifts can make a big difference in how children face challenges.



The key to fostering resilience is to guide students toward honest self reflection without tipping into either extreme — not letting them become overconfident or disengaged.

True self awareness grows when we encourage humility, curiosity, and a desire to understand ourselves better. For children (and adults), this creates a foundation for long term growth, stronger relationships, and the ability to face life's challenges head on.

Inability to **Focus** or **Think Deeply**

If we want to save this generation, we need to confront a hard truth: our kids are losing the ability to focus, and with it, the capacity for deep thinking.

The erosion of attention spans in today's students isn't just an academic issue; it's a full scale cognitive crisis that threatens their futures and, ultimately, the future of our society.

Over the past two decades, attention spans have plummeted by two thirds — dropping from 150 seconds to a mere 47 seconds.

Source: Dr. Gloria Mark of UC Irvine

This isn't just an alarming statistic; it's evidence of a generational shift driven by a world that thrives on distraction. Technology is the primary culprit, but it's more than just screen time; it's the entire architecture of modern life.

From rapid fire social media to algorithm driven content designed to keep kids hooked, we are systematically conditioning young minds to expect — and crave — constant stimulation.

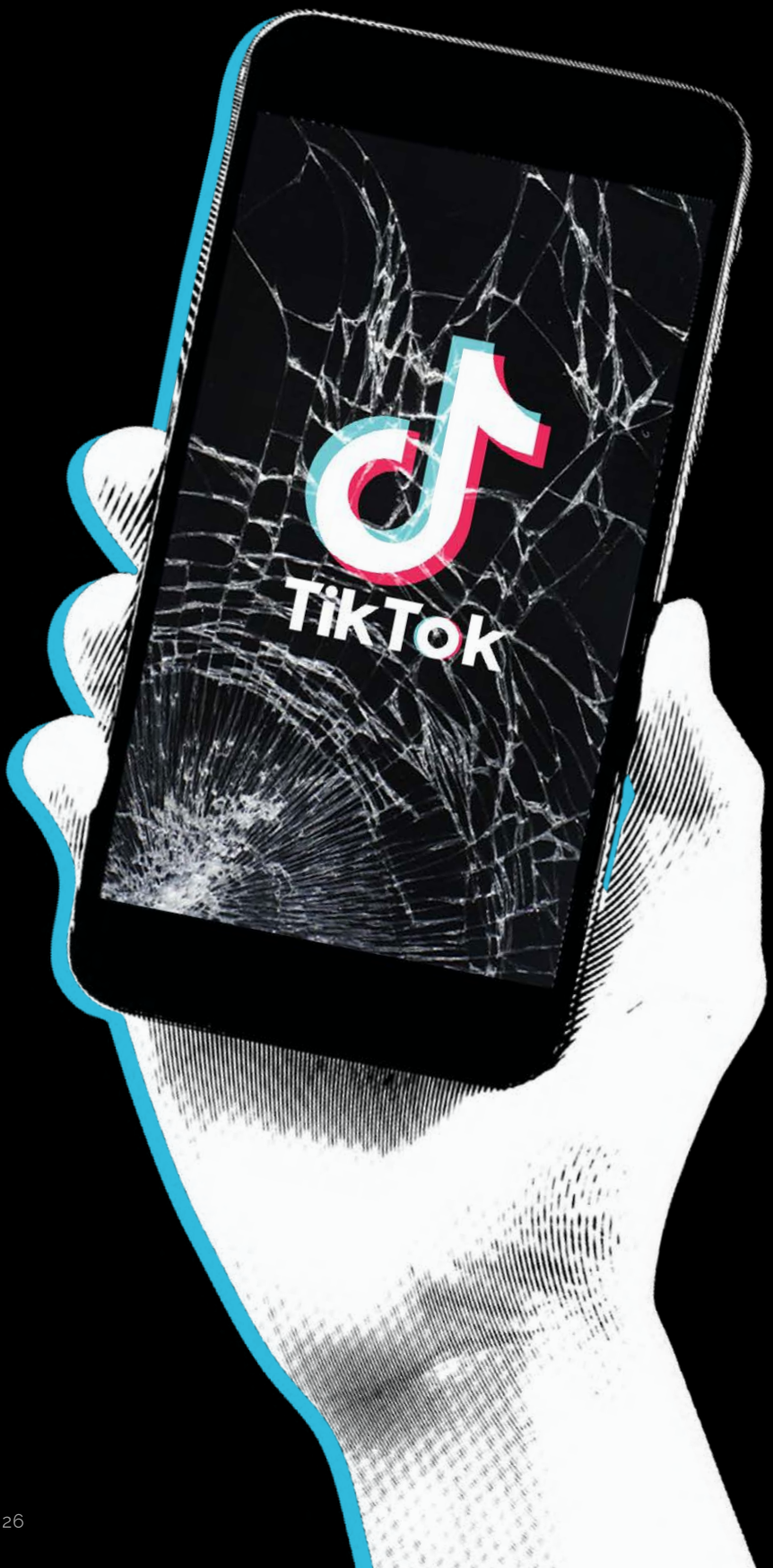
The result? A generation that can't sit still long enough to engage in meaningful learning or personal growth.

This systemic conditioning of young minds to crave constant stimulation has far reaching consequences. As Dr. Mark observes, "the constant mental switching and fragmentation erodes their capacity for deep, meaningful learning." It is also important to note that this isn't just affecting children and teenagers. Dr. Mark's research also shows that adults are equally susceptible to these attention fragmenting influences.

Studies show that students with shorter attention spans tend to:

- → Perform worse on tests
- → Struggle to retain information long term
- → Have difficulty engaging in critical thinking

A 2023 study in *Nature Communications* laid it out plainly — topics rise and fall in popularity faster than ever, and attention drifts with increasing speed. Social media accelerates this cycle, pulling students from one fleeting trend to the next. Even worse, algorithms reinforce biases and amplify disinformation, trapping young people in echo chambers that distort reality.



As Julie Jargon writes in "TikTok Brain Explained: Why Some Kids Seem Hooked on Social Video Feeds," her oft-cited *Wall Street Journal* article,

"We've made kids live in a candy store."

According to Jargon, **the frequent dopamine surges triggered by apps like TikTok — often referred to as "dopamine machines" by pediatricians — condition the brain to seek constant reward.**

The potential consequences are significant, with reduced attention spans impacting everything from academic performance to the ability to set and achieve long term goals.

We see the fallout every day in classrooms.

In the 2023-24 school year, **75% of public schools** reported that student inattention had a 'moderate' or 'severe' negative impact on learning.

Source: The National Center for Education Statistics

But here's the most dangerous part: instead of confronting this reality, too many schools are bending to the trend, designing lessons that cater to shrinking attention spans rather than challenging students to stretch them. High school lessons switch tasks every seven minutes. Microlearning breaks content into bite sized morsels. It's education by the lowest common denominator — and it's failing our kids.

The consequences extend beyond the classroom, affecting not only academic performance but also the development of essential life skills like critical thinking, problem solving, and perseverance. When students are conditioned to expect rapid shifts and instant gratification, they lose the ability to engage in complex tasks that require sustained effort and deep reflection.

This creates a troubling ripple effect: students may graduate without the cognitive endurance necessary for higher education, the workforce, or even basic decision making in their personal lives.

Employers are already sounding the alarm, reporting that young hires struggle with concentration, long term planning, and independent problem solving.

In essence, the failure to address shrinking attention spans in schools is **setting students up for a future in which they are poorly equipped to navigate the demands of adulthood**, contributing to a less capable and resilient society.

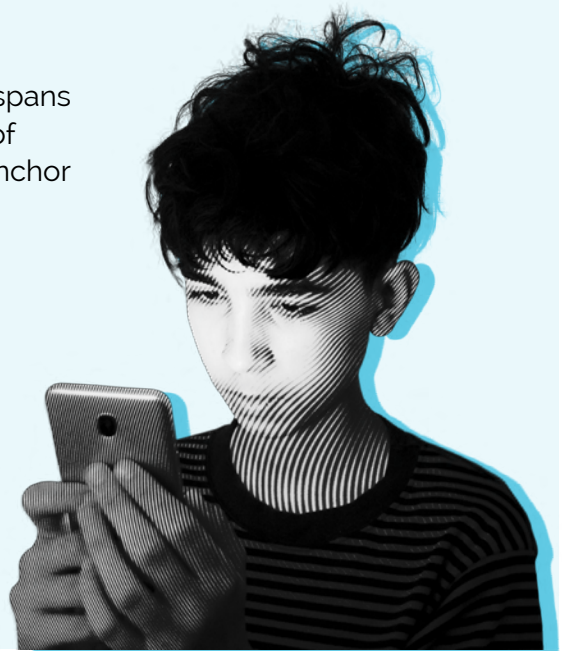
Building on this academic and professional deficit, the erosion of attention spans also fractures the emotional and social fabric essential for personal fulfillment and wellbeing. When young people lack the capacity for sustained focus, it impairs more than just their ability to learn; it diminishes their ability to truly engage with others, cultivate meaningful relationships, and pursue passions that require dedication over time.

The constant lure of distraction leaves little room for the deep, unstructured moments where empathy, introspection, and authentic connection are forged.

This fragmentation isn't happening in isolation; it's feeding into a broader societal crisis. As attention spans shrink, so too does the ability to invest in the kind of enduring relationships and personal growth that anchor mental health and emotional resilience.

U.S. Surgeon General Vivek Murthy called it an "Epidemic of Loneliness and Isolation" in 2023. Harvard's *Making Caring Common* project described it as **"existential loneliness"** — a profound sense of disconnection from others and the world around them.

We cannot allow this to continue.



Cell phone bans are a necessary first step, and momentum is building. **68% of U.S. adults now support banning phones in class.**

Source: Pew Research

But this must go further. Psychotherapist Jake Ernst puts it plainly: phones need to be "out of reach and out of mind" for the entire school day. They are digital drugs, and we must start treating them as such.

This isn't just about restriction; it's about **rebuilding minds.** Our schools must create environments that **push students to focus deeply, solve complex problems, and engage in rigorous, sustained learning.**

We need to stop diluting lessons and start demanding more — because the alternative is a generation that drifts through life, incapable of critical thinking, vulnerable to manipulation, and disconnected from the world and each other.

If we want to save this generation, we must **fight for their minds.** The stakes couldn't be higher.

Disillusionment About the Future

The consequences of an apathetic generation are profound and far reaching.

In 2021, The World Economic Forum cited an unusual consideration in its annual Global Risks Report: **youth disillusionment in the state of the world.**

The outlook for this generation had already been diminished by environmental degradation, rising inequality (of many types — gender, intergenerational, economic and ethnic), varying degrees of violence, and social disruption from the tech-enabled industrial transformation. While the digital leap forward unlocked opportunities for some youth, many are now entering the workforce in an employment ice age.

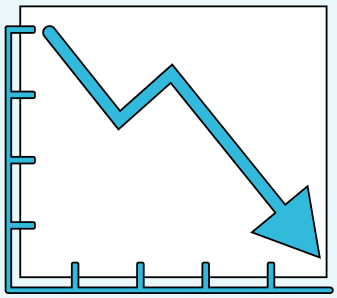
Sadly, little has changed. The 2024 edition of that same report finds "a predominantly negative outlook for the world over the next two years that is expected to worsen over the next decade," thanks to climate change, geopolitical shifts, societal polarization, economic downturn, disinformation, and beyond.

Make no mistake: **students are acutely aware of how bleak the future appears to be, and are responding with an alarming level of apathy**. This trend must be reversed, immediately.

When students lose faith in their ability to impact the future or doubt the value of their efforts, they disengage from meaningful activities such as learning, civic participation, or personal goal setting.

This withdrawal reinforces the very systems they see as broken, leaving problems unaddressed and further entrenching their sense of helplessness. Over time, this deepens their sense of disillusionment, as the lack of visible progress "proves" that their initial pessimism was justified. In the absence of hope, apathy thrives, perpetuating a dangerous spiral of disengagement and inaction.

The 2023 Edelman Trust Barometer highlights that **widespread distrust and negativity breed cynicism**, particularly among younger generations, who increasingly question whether their efforts or voices can make a difference.



This cynicism fuels disengagement in education, community involvement, and even personal relationships, perpetuating a cycle of isolation and disconnection that undermines both individual and societal wellbeing.

Meanwhile, a 2021 study published in The Journal of Positive Psychology found that individuals with a **more optimistic outlook** were significantly more likely to report higher levels of **happiness and life satisfaction**, as well as a **greater sense of purpose.**

In schools and in society, we ignore or diminish the problem of youth disillusionment at our peril. "Failing to examine youth engagement trends may be a serious blind spot— and thus a threat to democracy," writes Steven Gale, Agency Senior Advisor on Foresight at the U.S. Agency for International Development's Bureau for Policy, Planning and Learning.

"When youth disengage, they are often saying **they don't have a high level of confidence or trust in existing economic, political, or social entities**. They may also want to 'opt out' because they perceive that their generation is not being heard or treated fairly. Whatever their reasons, youth disengagement will ultimately have negative impacts beyond democratic engagement with potential shockwaves on social stability, the wellbeing and mental health of individuals (youth and their families), and individual and country-level economic productivity and quality of life."

This is alarming, and for schools, necessitates a paradigm shift, in which teaching and learning focuses on experiences that not only equip students with relevant skills for an evolving job market but also foster resilience, critical thinking, and purpose.

By raising standards through strategies like embracing intentional inquiry based learning, prioritizing real world relevance, and cultivating a supportive environment, school leaders have the power to restore students' faith in their futures — and in the systems meant to guide them toward success.

> Optimism is an essential ingredient for overcoming apathy, bravely facing adversity, and solving problems effectively.

The Solutions

There are no quick fixes to the resilience crisis plaguing our students but there are things we can start doing immediately and the good news is that they build off of things we already know to be true.

Students need to develop core skills like problem solving and critical thinking through engaging learning experiences that activate their passions and provide them with the agency to make their own decisions, such as sustained inquiry initiatives and entrepreneurial programs.

Schools and districts need future ready Portraits of a Graduate that reinforce this skill building, and ensure that resilience based classrooms are a key priority.

Teachers and leaders alike must apply the lens of all of this to all subjects — including and especially math.

We're not saying it's easy — nothing worth doing ever is. But it must be done, and it can be done.

Here are some ideas and actionable steps on how to make transformative change happen.

Helping Students **Understand Their Brains**

Understanding how the brain operates — its strengths, limitations, and unique wiring — can significantly contribute to academic and emotional resilience. Fostering students' self awareness about their brain's preferences, growth, and patterns allows them to make better choices in their daily life, enabling them to embrace their brain's individuality and work with it, not against it.

Every brain has unique wiring and change is always possible. Neuroplasticity allows brains to adapt to new habits, behaviors, and thought patterns over time.

Teachers can embed activities to help students consciously develop their cognitive function in **5 key areas:**

1. Attention Management
2. Emotional Regulation
3. Reward and Motivation
4. Social Understanding
5. Authentic Self Awareness

Helping students understand that small, consistent habits can create lasting change in their brain function is an important part of self awareness.

For students of all ages and adults alike, self awareness is critical to understand how best to work with natural cognitive tendencies. Importantly, as our brains develop from childhood into adolescence, we build the skills and tools necessary to engage in tasks like sustained inquiry. This was observed, literally, in a study of MRI readings by Sarah-Jayne Blakemore from University College London's Institute of Cognitive Neuroscience.

The study's findings suggest that adolescent brain development, particularly in the prefrontal cortex, supports key cognitive skills and processes essential for sustained inquiry. This includes improved executive function, enhanced social cognition, increased processing speed, and greater neuroplasticity. Helping students understand how and why to harness these skills as they develop is crucial in enabling deep thinking and learning to occur.

KEY AREA 01

Attention Management

Recognizing whether your brain thrives on focused, deep work, or frequent task switching helps you optimize your productivity and reduce stress. Brains have limited cognitive resources, and overextending them leads to stress and burnout.

Mental fatigue impacts decision making, focus, and emotional balance. Knowing when your brain needs rest or simply a change of pace is essential. Being aware of attention pitfalls enables students to take intentional breaks, avoid multitasking excessively, and create environments that reduce unnecessary cognitive stress.

This metacognitive awareness is best established early and often, so that it becomes an embedded part of learning and growth for older students. That said, children of all ages benefit from understanding the connection between mental and physical exertion.

Strategies to Help Students **Develop Better Attention**

MAKE IT REAL

Share videos and other resources visually demonstrating the difference between a focused and unfocused brain. Ask students to relate these visuals to how they feel when they are focused, overwhelmed, and bored.

USE THE POMODORO TECHNIQUE

Teach students to focus intensely for 25 minutes and then take a 5-minute break. Adjust time intervals based on class activity.

ENGAGE IN MEANINGFUL REFLECTION

Ask students to reflect on when they feel most focused (e.g., morning vs. afternoon, quiet vs. background noise) and adjust their study habits accordingly. Have them continue to reflect on how this impacts their ability to focus.

PROVIDE VISUAL AND AUDITORY CUES

Use timers, visual schedules, or sound chimes to signal transitions between tasks.

CELEBRATE SUCCESS

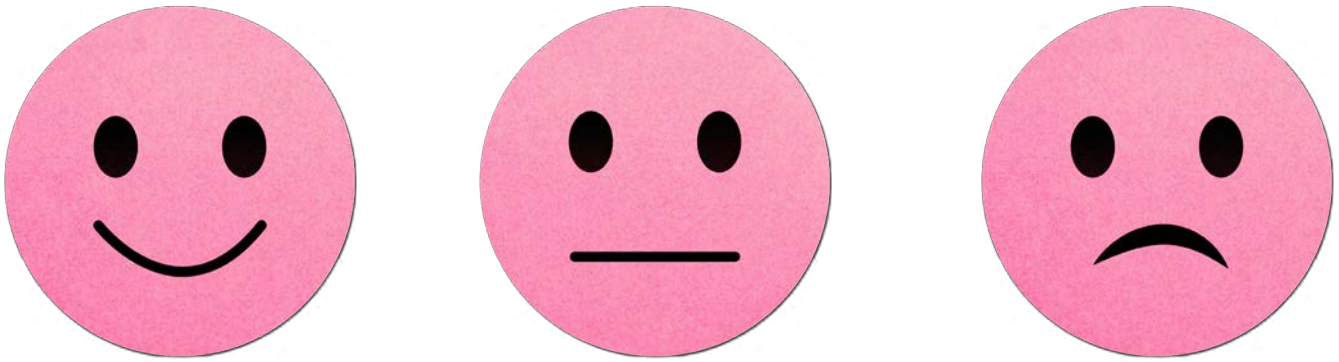
Make improved attention and focus an important goal. Celebrate individual and class improvements.

KEY AREA 02

Emotional Regulation

Understanding how your brain responds to stress or emotional triggers can improve your coping strategies and resilience. Psychology, Neuroscience, and Linguistics Professor Chantal Prat explains how different brains process emotions and stress:

For example, some people naturally have a more reactive amygdala (the brain's fear center), while others may process emotions more calmly. Recognizing your emotional patterns can help you anticipate and regulate your responses. Techniques like mindfulness meditation, deep breathing, and cognitive behavioral approaches can support students to retrain their brain's emotional responses.



Strategies to Support the **Development of Emotional Regulation**

NORMALIZE EMOTIONAL DISCUSSIONS AND REFLECTION

Regularly talk (in developmentally appropriate language) about feelings using tools like mood meters or emotion wheels. Encourage journaling or emotion logs where students record situations that trigger strong feelings and strategies that help them feel better.

MODEL EMOTIONAL REGULATION

Teachers can verbalize their emotional responses (e.g., "I'm feeling frustrated, so I'm going to take a deep breath before continuing").

DEVELOP PROACTIVE AND REACTIVE PRACTICES

Establish meaningful classroom norms or agreements that focus on the brain science behind why students may sometimes lose control. Use these same explanations as the basis of a "repair strategy" for when emotional outbursts inevitably occur — reframe these situations as an opportunity to understand why and how emotional regulation is impacted by neuroscience and cognitive development.

KEY AREA 03

Reward & Motivation

Understanding your brain's reward system helps you set realistic goals and sustain motivation over time. Dopamine, a key neurotransmitter, affects motivation, and how this varies between individuals.

Some people need external rewards to stay motivated, while others are driven by intrinsic goals. This concept is understandable to all students when framed appropriately; using a reward as motivation is a strategy almost everyone encounters before they ever set foot in a school.

Strategies to Foster Motivation in a Classroom

APPLY A METACOGNITIVE APPROACH

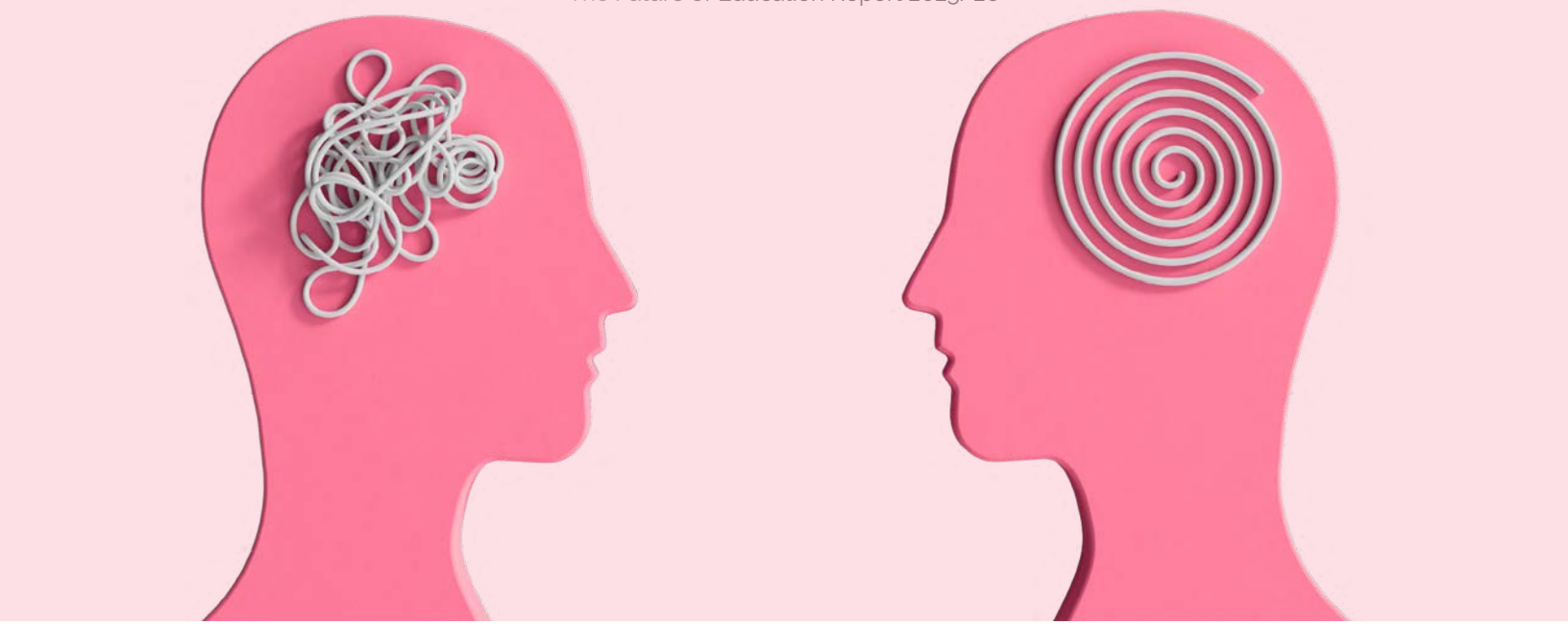
Teach students to identify what motivates them (e.g., praise, tangible rewards, curiosity) and use this to set personal goals.

LEVERAGE STUDENTS' MOTIVATORS IN PLANNING

Use the information students provide about their motivations to guide classroom management and lesson planning. This might mean offering choice and autonomy, incorporating gamification, helping students set short- and long-term goals, providing ongoing feedback, or a combination of these and other strategies.

BUILD GROWTH MINDSETS AND ENCOURAGE SELF-COMPASSION

Believing in the potential for personal improvement encourages perseverance and innovation when encountering obstacles. Call out negative self talk and defeatist attitudes, particularly when something does not go well; acknowledging and accepting failures without self criticism allows for recovery and renewed effort.



KEY AREA 04

Social Understanding

Understanding that others' brains may process emotions, communication, or logic differently fosters empathy and improves relationships.

In her book, *The Neuroscience of You: How Every Brain Is Different and How to Understand Yours*, Dr Chantal Prat highlights that brains differ between people and within the same person in different contexts. Accepting these variations helps reduce self judgment and comparison with others. Understanding individual brain preferences enables strengths based living, as does recognizing that your brain's "weaknesses" might be strengths in other contexts.

For example, a distractible brain might also be highly creative. In a high school setting, this is discussed using terms like "empathy" and "emotional intelligence." For younger students, the language is simpler, but the message is the same: it's important to try to understand the feelings of others.

Strategies to Broaden **Social Understanding**

PRACTICE EMOTIONAL INTELLIGENCE

In planned and unplanned circumstances, ask students to identify their emotions and the emotions of others. This supports their ability to understand and manage emotions effectively, which supports resilience in challenging situations.

FOCUS ON EMPATHY

As often as possible, ask critical questions like "How would it feel to be in this person's situation?" These questions are more commonly asked in Humanities classes, but are equally relevant when exploring problems in STEM courses, discussing sports strategies in Phys. Ed., developing communication strategies in language studies, or expressing human emotion in the Arts.

Create a **Brain Friendly** Classroom Environment

TEACH BASIC BRAIN SCIENCE

- Explain how the brain works using simple diagrams (e.g., prefrontal cortex for decision-making, amygdala for emotions).
- Use Carol Dweck's *Growth Mindset* principles to teach students that their brains can grow and adapt with practice.

CREATE A POSITIVE CLASSROOM CULTURE

- Foster an environment of respect, where mistakes are seen as learning opportunities.
- Praise students for persistence, creativity, and problem solving, not just for "right answers."
- Encourage students to recognize when they are tired, distracted, or overstimulated and to advocate for small breaks or adjustments.

ENCOURAGE METACOGNITION

- Have students explore where and how they learn best.
- Engage in regular cycles of feedback and self reflection.
- Teach students to "think about their thinking" by asking critical questions:
  - *What was challenging about this task?*
  - *How did I approach solving this problem?*
  - *What could I do differently next time?*

KEY AREA 05

Authentic Self Awareness

Authentic self awareness means recognizing both strengths and weaknesses, embracing personal imperfections, and understanding how one's mindset influences behavior.

The core of this is self reflection — setting aside time to evaluate actions and decisions thoughtfully. This is commonly achieved using tools like journaling, meditation, or mindfulness practices, but can also be applied in a more practical and actionable (as well as assessable) framework, such as regular goal setting.

When students set goals, reflect on their progress, and then set *new* goals, they build self awareness of their growth and needs in a measured and sustained manner. Feedback from teachers and peers is used to support this cycle, as is self assessment. This approach helps students break down larger tasks into manageable chunks, develop intrinsic motivation, celebrate wins, and overcome setbacks.

By developing authentic self-awareness, setting achievable goals, and maintaining motivation, individuals can build a strong foundation for resilience. This balanced approach helps overcome life's challenges and supports ongoing personal growth, emotional well-being, and meaningful connections with others.

ENCOURAGE HEALTHY BRAIN HABITS OUTSIDE THE CLASSROOM

- Educate students about the importance of sufficient sleep for memory and focus.
- Remind students that exercise supports brain health and emotional balance.
- Teach responsible screen time management to prevent overstimulation and fatigue.
- Discuss how nutrition contributes to brain health, and affects focus and energy levels (e.g., protein-rich snacks over sugar highs).

The Impact of **Screen Time** on Brain Development

Recent research has shed light on the profound effects of excessive screen time on brain development, particularly in young children.

A study conducted at Cincinnati Children's Hospital found that high amounts of screen time can affect brain growth and development in children as young as 3 to 5 years old.

The study revealed that excessive screen usage was associated with accelerated maturation in basic visual processing areas; underdevelopment in higher order areas supporting complex skills; and lower cortical thickness and sulcal depth in brain regions linked to language development, reading skills, and social skills.

The brain's reward system plays a crucial role in our ability to focus and sustain attention. Screen based activities, particularly social media and video games, can hijack this system by triggering the release of dopamine, the "feel-good" neurotransmitter.

DOPAMINE RELEASE THROUGH SCREEN TIME CAN LEAD TO ADVERSE CONSEQUENCES, INCLUDING:

- ✕ Desensitization of the brain's reward system
- ✕ Increased need for stimulation to experience pleasure
- ✕ Disruption of the brain's frontal lobe, where mood regulation occurs

Dr. Victoria Dunckley explains that gaming releases so much dopamine that, on a brain scan, it looks similar to cocaine use.

This overstimulation of the reward system can make it increasingly difficult for students to focus on less immediately rewarding tasks, such as reading or problem solving. This is a particularly alarming finding since tasks like these are almost always performed on screens — in school, and beyond.

Meanwhile, Dr. Gloria Mark's research provides compelling evidence of a measurable decline in our ability to focus. Her studies have shown a dramatic decrease in average attention spans over the past two decades.

In 2004, she reports, our average attention on a screen was **2½ minutes.**

Today, this has decreased to the point that people can only pay attention to one screen for an **average of 47 seconds.**

Even more concerning is the time it takes to refocus after a distraction. Dr. Mark's research reveals that when attention is diverted from an active work project, it takes about 25 minutes to fully refocus on the original task.

With all this in mind, the question becomes: how might we reclaim screens as a tool for learning and growth? The answer starts with understanding why the association between screens and dopamine are so deeply entrenched.

The concept of neuroplasticity — the brain's ability to form and reorganize synaptic connections — is crucial in understanding the long term effects of our digital habits. While neuroplasticity allows for learning and adaptation, it also means that repeated behaviors can lead to lasting changes in brain structure and function.

A study published in JAMA Pediatrics found that higher nonproductive screen usage in preschool-aged children was associated with lower brain white matter integrity and early literacy skills. This suggests that the habits formed in early childhood can have lasting impacts on cognitive development and academic performance.

Implications for **School Leaders**

Abandoning digital devices and tools in schools is a nonstarter, but a fresh approach is clearly required. Given these findings, many school leaders are now considering strict measures to rethink the function and use of screens in school, including:

1. Implementing policies governing where, when, and why students have access to screens — with a clear focus on using technology purposefully, as a means to enable inquiry, iteration, conscious pursuit, and mindful exploration
2. Promoting activities that encourage sustained attention and deep thinking
3. Educating parents and students about the neurological impacts of excessive screen time
4. Incorporating "digital detox" periods into the school day
5. Introducing strict limitations on cell phone use in schools, including outright bans in some cases

Helping Students Find Their **Purpose, People & Promise**

We must instill a renewed sense of **purpose, connection, and hope** to combat today's youth's increasing apathy, disillusionment, and lack of resilience. This requires taking actionable steps to reignite their passion for learning, foster strong relationships, and equip them with the skills to build a brighter future.

Purpose: The Antidote to Apathy

Apathy in students often arises from a lack of connection between their education and the real world, leading to disengagement and a diminished sense of agency. Purpose driven education, grounded in research on intrinsic motivation and human development, reengages students while preparing them to lead meaningful lives.

When students discover their passions and see the impact of their work, they gain the confidence and skills needed to navigate adulthood and contribute to society. William Damon's research from the Stanford Center on Adolescence highlights **purpose as a key milestone in adolescence.**

Defined as a commitment to goals that are personally meaningful and beneficial to others, purpose fosters motivation, resilience, and direction. Damon emphasizes helping young people identify their passions and connect them to broader societal goals, laying the foundation for academic and personal success.

Dr. Heather Malin builds on Damon's work, emphasizing that **purpose is a dynamic process shaped by experiences and reflection.** In *Teaching for Purpose: Preparing Students for Lives of Meaning*, she calls for educational environments that align students' interests with community and global needs.

Malin highlights the dual role of modern challenges like digital media and global interconnectedness, outlining that they offer inspiration and potential distraction. She also stresses the importance of guiding students toward authentic, meaningful goals in this fast-paced world.

Project Based Learning (PBL) and service learning provide practical frameworks for achieving this.

Research shows that PBL improves engagement and enhances critical thinking, collaboration, and problem solving skills. Service learning goes a step further by combining academic objectives with community service, fostering a sense of civic responsibility, and showing students how their efforts can make a tangible impact.

58% of young adults lack meaning or purpose in their lives

Source: Harvard Graduate School of Education

"According to research, having purpose staves off stress and can help you channel challenges toward learning and growth. Purpose fuels hope and optimism, and purposeful people tend to have better health and longevity."

— EMILIANA R. SIMON-THOMAS | Science Director of the Greater Good Science Center, UC Berkeley.

Often, educators will encounter resistance when trying to instill a sense of purpose in their students. It's important to remember that this is largely a defense mechanism; in the face of daunting challenges that seem massive in scale and scope, it's tempting for a young person to say that they simply "don't care."

The truth, however, is that they *do* care — a lot. What's required is the distillation of large, systemic issues into comprehensible and tangible outcomes. This often means zooming in to the local (and even school) community. For example, talking to a student about how long it takes them to get to school is a valuable jumping off point to discussing issues like government funding for transportation infrastructure, human behavior, and entrepreneurial initiatives.

Best of all, purpose driven learning is contagious. When students see their peers ignite their passions and connect them with what they're learning, they immediately recognize the benefits: school becomes more interesting, useful, and fun. Two generations ago, when development was a linear process, this was a nice-to-have. Now, however, it is a fundamental requirement: the world needs people with purpose, and it's up to us to light the spark for K-12 learners.

PRACTICAL IDEAS TO FOSTER PURPOSE

- **Connect Learning to Real Life** — Help students explore their interests by involving them in real world, hands on experiences. For example, they could tackle local environmental challenges through project based learning or spend time shadowing professionals in careers they're curious about.
- **Encourage Community Engagement** — Cultivate opportunities for students to make a difference in their community through service learning projects. These projects can focus on issues like food insecurity, poverty, or health care, and tie their efforts to what they learn in school.
- **Incorporate Reflection** — Schedule time for students to reflect on their values and goals. Journaling or group discussions with prompts like, "What kind of impact do I want to have in my community? In my life?" can help them connect their work to a larger purpose.
- **Provide Mentorship** — Connect students with mentors who share their passions. Whether it's alumni, professionals, or community leaders, mentors can inspire students and show them how their interests can lead to meaningful careers or contributions.
- **Global Collaboration** — Open up opportunities for students to work with peers from other countries. If there is anything the pandemic has yielded that is positive, it's virtual connections! Virtual projects or partnerships focused on global challenges can help them see their place in the world and their potential to make a difference.

People: The Antidote to Isolation

Many students today feel socially, emotionally, and intellectually isolated due to an increasingly disconnected world. Excessive screen time, changing community dynamics, and the pressure to achieve individually often leave young people feeling alone and unsupported. Sherry Turkle's seminal work, ***Alone Together***, highlights how technology, while connecting us superficially, can lead to deeper feelings of isolation.

Building on this, the October 2024 study "Alone Together: Study of Adolescents' Psychological Health and Contemporary Social Media" reveals that heavy social media use correlates with increased feelings of loneliness among teens. To address this, fostering meaningful human connections is essential. By focusing on belonging and social emotional learning (SEL), educators can help students reconnect, develop strong interpersonal skills, and prepare for success in a collaborative world.

Dr. Carol Dweck's research on growth mindset highlights the importance of supportive relationships in fostering resilience and motivation. Students who feel valued by their peers and teachers are more likely to embrace challenges and persevere through setbacks. Dweck emphasizes that a sense of belonging and encouragement from others can transform how students view themselves and their abilities.

Additionally, research by Dr. Christina Hinton at the Harvard Graduate School of Education shows that belonging is a fundamental driver of academic and personal success.

Her studies reveal that students who feel connected to their school community are more engaged and experience better mental health outcomes. Hinton advocates for schools to cultivate environments that intentionally prioritize relationships and empathy.

Dr. Brené Brown's work on vulnerability and connection also underscores the critical role of relationships in combating loneliness. She explains that authentic human connections are foundational to wellbeing, and that the courage to build these relationships often begins in environments that encourage openness and trust.

People with stronger social bonds have a **50%** increased likelihood of survival than those who have fewer social connections

Source: US Centers for Disease Control and Prevention

Building relationships is not just about addressing loneliness; it's about creating the conditions for students to thrive.

When students experience the power of connection, they feel more confident, resilient, and ready to contribute meaningfully to their communities. Relationships foster belonging and collaboration, preparing young people to navigate the complexities of an interconnected world.

As educators, parents, and community leaders, we must create spaces where relationships matter. By prioritizing human connection, we can help students move beyond isolation, embrace their communities, and build the interpersonal skills they need to lead fulfilling, connected lives.

PRACTICAL IDEAS TO FOSTER HUMAN CONNECTION

- **Create Opportunities for Collaboration and Relationship Building** — Encourage teamwork through group projects promoting problem solving and communication, and incorporate empathy building games, and one-on-one check-ins to forge stronger connections between students, their teachers, and the wider community. For instance, students could collaborate on community initiatives, such as organizing a food drive or designing sustainable solutions for a local issue. The project could include stakeholder interviews and "progress update" meetings with their teacher.
- **Develop Peer Support Networks** — Implement programs like peer mentoring or buddy systems to foster supportive student relationships. These networks create a sense of community and help students develop empathy and mutual respect.
- **Encourage Intergenerational Connections** — Create opportunities for students to engage with older generations through projects like oral history interviews, community service programs, or collaborative events with senior citizens. These relationships can provide perspective and a sense of continuity.
- **Promote Social Emotional Learning (SEL)** — Integrate SEL practices into the curriculum to teach empathy, active listening, and conflict resolution skills. SEL helps students build and maintain healthy relationships while fostering a stronger sense of belonging.
- **Use Technology Thoughtfully** — Leverage digital tools to enhance genuine connections. Virtual pen pal programs, global collaborations, or real time group projects can connect students with peers across the world while promoting meaningful interactions.

"The reality is that we're living in a time of true disconnection. While technology seems to connect us more than ever, the screens around us disconnect us from nature, from ourselves, and from others. Wi-Fi alone isn't enough to fulfill our social needs – we need face-to-face interaction to thrive. Technology should be enhancing our connection to others, not replacing it."

— CANADIAN MENTAL HEALTH ASSOCIATION

Promise: The Antidote to Hopelessness

Hopelessness, the belief that nothing will improve and that effort doesn't matter, is one of the most damaging effects of apathy. It robs students of motivation, stifles creativity, and leaves them powerless in the face of challenges.

Optimism through promise and hope, on the other hand, is the antidote. It's the belief that tomorrow can be better and that individual actions have the power to create change. Promise and hope transform optimism into something tangible, actionable, and empowering.

Dr. Martin Seligman's research on positive psychology highlights the importance of hope and optimism as drivers of resilience and wellbeing. He describes hope as envisioning a future where challenges can be overcome, and goals can be achieved. This sense of agency (the belief that one's efforts make a difference) is critical for reengaging students and fostering a sense of purpose.

Similarly, Angela Duckworth's work on grit underscores the role of perseverance and optimism in achieving long term goals. Duckworth explains that students who see value in their work and believe in their ability to make an impact are more likely to persist through obstacles. These insights show that fostering promise is not just about inspiring students; it's about equipping them with the tools and mindsets they need to act.

Educators play a crucial role in rekindling hope in students. This begins with creating opportunities for students to experience small wins and see the impact of their efforts. It also involves helping students envision a future where they are agents of change capable of shaping their communities and the world. Modeling optimism and celebrating progress are powerful ways to instill the belief that effort matters and that better outcomes are possible.

Hopelessness is not a minor issue; it directly threatens our collective future. Hopelessness fuels apathy, draining energy and innovation and leaving students disengaged and disconnected. The solution starts in classrooms, where educators can nurture students' ability to dream, act, and believe in their potential to create change.

The world needs students who are not resigned to the status quo but inspired to envision and build a better future. **By fostering promise, we can help them develop the confidence, resilience, and sense of agency needed to lead meaningful lives and solve the challenges ahead.**

"We often use the word 'hope' in place of wishing, like you hope it rains today or you hope someone's well. But wishing is passive toward a goal, and hope is about taking action toward it."

— CHAN HELLMAN | Founding Director of the Hope Research Center, University of Oklahoma.

Optimists have a **35%** lower risk of cardiovascular events than pessimists.

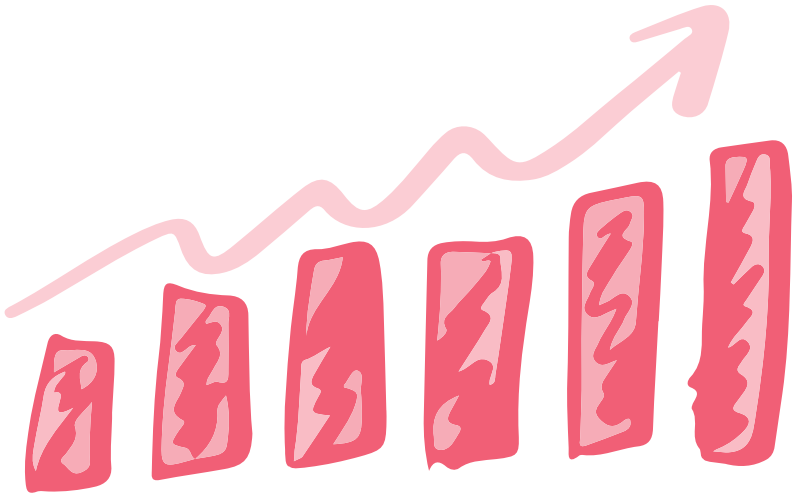
Source: Global Wellness Institute

PRACTICAL IDEAS TO FOSTER PROMISE

- **Celebrate Small Wins —** Create opportunities for students to achieve and acknowledge incremental progress. For example, showcase student projects, highlight milestones, or set achievable goals that build momentum and confidence.
- **Envision Positive Futures —** Encourage students to think about the impact they want to have on the world. Activities like vision boards, future focused journaling, or guided discussions can help students clarify their goals and see how their actions contribute to a better future.
- **Model Optimism —** Demonstrate a positive outlook in the face of challenges. Share stories of resilience and progress from history, current events, or personal experiences to show students that change is possible.
- **Build Agency Through Real World Impact—** Give students opportunities to see how their efforts matter. For instance, involve them in community service, advocacy campaigns, or problem solving initiatives that create visible change.
- **Promote Growth Mindset Practices —** Teach students to view challenges as opportunities that will allow them to grow rather than obstacles standing in their way. Showcase the importance of persistence and effort in achieving meaningful goals.
- **Connect Students with Role Models —** Introduce students to individuals who have overcome adversity to make a difference. These role models can inspire students to believe in their potential and take action toward their dreams.

Purpose, people, and promise are not just abstract ideals; they are essential tools for shaping a generation of students who are engaged, resilient, and ready to lead.

Educators, parents, and community leaders can combat apathy, isolation, and hopelessness by connecting learning to real world impact, fostering meaningful relationships, and instilling a sense of hope and agency. These efforts are urgent, but they are also deeply rewarding. When students discover their purpose, build authentic connections, and believe in their ability to create change, they will thrive as individuals and also contribute to a better, more connected world. Together, we can help young people embrace their potential and step boldly into a future they have the power to shape.



3 Traits At the Heart of **Raising the Bar**

Building resilience and grit in young people, increasing their focus and deep thinking, and addressing student reactions to a chaotic state of the world and uncertain future can understandably seem like a daunting task. But, while it is challenging in the sense that it requires a fundamental shift in our approach to education, there are clear, foundational traits at the core of this movement to raise the bar: *Assertiveness, Stewardship, and Optimism.*

These three traits are essential to help students foster personal growth and social responsibility, shape their character, and guide their future interactions.

Cultivating these traits requires focused dedication from school leaders, coupled with intentional strategies employed by educators.

All three of these traits are rooted in Emotional Intelligence — one's capacity to manage their own emotions and understand the emotions of others.

This skill is highly prized by leading job providers; a survey by Lee Hecht Harrison Penna found that **75% of people managers base decisions about promotions or raises on emotional intelligence.**

The 2025 Future of Jobs Report from the World Economic Forum lists **motivation and self awareness and empathy and active listing among the most in-demand skills,** alongside (and even outranking) skills related to technical proficiency.

According to the Report, "Skills that reflect the important role of technical proficiency, strong interpersonal abilities, emotional intelligence, and a commitment to continuous learning demonstrate respondents' expectation that workers must balance hard and soft skills to thrive in today's work environments."

Here are some practical considerations to bring these traits to life:

DEVELOPING ASSERTIVENESS

Assertiveness is the ability to express one's needs, thoughts, and feelings confidently and respectfully without infringing on the rights of others. It is a critical skill for youth as they navigate complex social dynamics and strive to establish their identities. A lack of assertiveness can lead to either passive behavior, where children (and especially teens) avoid expressing themselves, or aggressive behavior, where they dominate others.

Done well, teaching assertiveness helps students find this middle ground. According to Lynn Holley and Sue Steiner, assertiveness is associated with increased comfort in expressing individuality and taking risks. This suggests that assertive individuals are more likely to feel empowered to speak up, share their ideas, and pursue their goals. Furthermore, Stephen and Mary Agnes Hamilton highlight that psychological safety, fostered through assertiveness, promotes the development of self regulation and other essential skills, such as learning from mistakes, seeking help when needed, and providing constructive feedback.

In education, assertiveness can contribute to a more positive and productive learning environment. When students feel comfortable expressing their needs and opinions, they are more likely to actively engage in classroom discussions and activities. Assertiveness also enables students to advocate for themselves, leading to increased self-confidence and a stronger sense of agency in their learning journey. By fostering assertiveness in students, educators can empower them to become active learners and effective communicators, both within the classroom and beyond.

Helping students develop assertiveness starts with equipping them with the skills for Civil Debate, allowing them to confidently express their ideas while engaging respectfully with opposing viewpoints. Rather than avoiding challenging discussions, educators can guide students in asserting their perspectives with clarity and evidence, ensuring debates remain fact based rather than personal. Civil Debate promotes critical thinking, constructive doubt, and effective communication, encouraging students to craft well reasoned arguments supported by trusted sources. (See page 60 for Civil Debate strategies.)

By practicing how to listen, analyze, and respond thoughtfully, students gain the confidence to assert their beliefs while remaining open to different perspectives. Additionally, fostering a safe environment where students feel their opinions are valued reinforces the confidence needed to assert themselves. With that in mind, this skillset not only strengthens their ability to engage in meaningful discourse, but also helps them recognize that effective debate is not about "winning" but about understanding, refining ideas, and driving solutions forward.

CULTIVATING STEWARDSHIP

Stewardship entails taking responsibility for one's community and environment, fostering a sense of accountability and care for others. For students, cultivating stewardship helps develop empathy, teamwork, and a broader understanding of their impact on the world. It instills a sense of purpose, encouraging them to contribute positively to society.

The benefits of this mindset are borne out in research conducted worldwide. Stewardship, as defined by Morela Hernandez, encompasses attitudes and behaviors that prioritize the long term wellbeing of a community over individual self interest. Hernandez sees stewardship as stemming from leadership behaviors that foster a sense of personal responsibility for the enduring welfare of society. Central to this concept is the idea of balance, where individuals strive to meet their obligations while upholding broader societal and moral norms.

Similarly, James H. Davis, F. David Schoorman, and Lex Donaldson describe stewardship theory as a higher level duty of governance where leaders prioritize pro-organizational motives over self interest. James Carlopio, meanwhile, stresses the importance of leaders resisting self interest and embracing broader values and principles based on moral duty and fiduciary obligation. Peter Block puts it most succinctly: he defines stewardship as "service over self interest," advocating for treating team members as "owners and partners" to achieve both organizational and individual needs.

For these reasons, it's critically important that we don't shy away from engaging students in discussions about global challenges, such as climate change or social inequality. They need a chance to explore issues and talking about them can also inspire students to take action and advocate for solutions — starting with tangible, achievable, hyper local projects that build a sense of stewardship, while simultaneously demonstrating that real change is possible.

Importantly, however, stewardship goes far beyond concepts like environmental awareness. Stewardship provides a framework for students to set and achieve meaningful goals, contributing to their personal growth and the betterment of their communities. By actively participating in their communities, students learn to identify issues they care about, set realistic goals to address them, and take concrete steps to achieve those goals. This process not only fosters a sense of purpose and accomplishment but also nurtures essential qualities such as initiative, responsibility, and collaboration.

Beyond this, stewardship is intrinsically linked to leadership development. **A steward is someone who takes ownership and acts responsibly**, qualities that are also fundamental to effective leadership.

By encouraging students to become stewards, we are essentially cultivating the next generation of leaders. Through their actions, student stewards demonstrate key leadership traits. Stewards possess a vision for a better future and inspire others to work towards it. They actively seek solutions to challenges facing their communities. Stewards effectively communicate their ideas and collaborate with others to achieve common goals. They persevere in the face of obstacles and demonstrate a commitment to creating positive change.

Service learning programs are an effective way to promote stewardship in school.

Participating in community service projects, such as organizing food drives or environmental clean ups, allows students to see the tangible results of their efforts.

FOSTERING OPTIMISM

Though all three of these traits are vitally important, the ability to maintain a positive outlook on life (even in the face of challenges) is arguably the most crucial trait of all. Optimism is a protective factor against stress and mental health issues, promoting resilience and problem solving skills. Optimistic individuals are more likely to view setbacks as temporary and surmountable, which empowers them to persevere in difficult situations.

Optimism drives motivation and ambition, protects students' sense of self, and prevents discouragement in the short and (perhaps more importantly) long term. Students who are optimistic are more willing to take risks and explore new opportunities for learning through complex problem solving. Positive psychologist Martin Seligman warns that without optimism, learners are at a risk of low academic and professional achievement, and physical and mental health concerns. Optimism protects students' sense of self, and prevents discouragement. In a world where environmental, economic, and political crises are on the rise, an optimistic mindset is necessary to break down and take on massive challenges facing future generations.

Encouraging learners to embody optimism has been proven to **enhance their mental and physical wellbeing** in educational settings, as well as in their day to day lives.

Ciro Conversano and colleagues highlight the connection between optimism and mental health, by revealing that high levels of optimism significantly influence mental and physical wellbeing. They also state that high levels of optimism among individuals are associated with greater flexibility and problem solving capacity. One of the strategies researchers have identified as increasing optimism and hope is by having positive expectations for the future as a mechanism for achieving positive mental health.

Building optimism in students involves teaching them to reframe negative thoughts and focus on positive aspects of their experiences. For example, instead of dwelling on a poor grade, students can be encouraged to see it as an opportunity to learn and improve. Of course, getting parents to see the value in this experience might be the true hindrance. Educating parents on the importance of ongoing learning, and the need to foster optimism to build resilience through adversity, is the lynchpin to ensuring that students get the same message.

Gratitude practices, such as journaling three positive events each day, can help shift their focus toward feeling optimistic about their own futures. Adults can also share stories of individuals who overcame adversity through a positive mindset, demonstrating that challenges can lead to growth and success.

RECLAIMING THE ROLE OF MEDIA

News stories, documentaries, and other media content have shifted in recent years from a cornerstone of real world learning to a veritable minefield of potential misinformation and controversy. One solution: reclaim it in the name of resilience. Share stories with students of others who are disillusioned and overcome adversity — including local stories as well as biographies of globally recognized change leaders like Malala Yousafzai.

INTEGRATING THE TRAITS

Though they can be taught and fostered individually, an integrated approach benefits students in developing assertiveness, optimism, and stewardship. These traits are interdependent; assertiveness empowers young people to advocate for themselves and others, optimism fuels their belief in making a difference, and stewardship provides the motivation to act responsibly. Parents and educators play a critical role in modeling these traits, creating opportunities for experiential learning, and fostering open communication.

By equipping today's students with these traits, society can nurture confident, resilient, and socially responsible individuals ready to face the complexities of adulthood.

MODEL OPTIMISM

- ☐ **Lean In to Success —** Start or end class with students sharing a small success, however minor, to shift focus toward progress. Teachers can also share personal stories of overcoming challenges to reinforce resilience and optimism, showing that setbacks are stepping stones to success.
- ☐ **Reframe Challenges as Growth Opportunities —** When students feel frustrated by mistakes, model reframing: replace "I'm bad at this" with "I haven't mastered this yet, but I'm improving." This fosters optimism and a growth mindset, countering disillusionment by viewing challenges as part of continuous learning.
- ☐ **Create a Gratitude and Success Wall —** Designate a space where students can post gratitude notes or success stories. This builds resilience through reflection, encourages optimism, and strengthens assertiveness by having students acknowledge their progress.
- ☐ **Role Play Solutions to Challenges —** Use role-playing exercises where students act out challenges and brainstorm solutions. This builds assertiveness in communication, fosters stewardship through collaborative problem-solving, and reinforces resilience by teaching constructive responses to setbacks.

ENABLE DECISION MAKING

- ☐ **Engage in Real World Problem Solving —** Present students with real world dilemmas and have them collaborate to generate solutions, evaluate pros and cons, and decide on the best course of action. This process strengthens critical thinking, builds confidence in decision-making, and fosters a sense of responsibility for their choices.
- ☐ **Encourage Reflective Discussions —** After each decision-making exercise, guide students in analyzing the outcomes, reinforcing resilience by learning from both successes and setbacks. This practice fosters assertiveness as they articulate their reasoning and stewardship as they consider the impact on their community.
- ☐ **Offer Choice in Learning —** Let students decide how to demonstrate their understanding of a concept—or even choose what to learn. Making structured choices builds autonomy, strengthens decision-making skills, and cultivates optimism by framing each decision as a learning opportunity.
- ☐ **Use Decision Journals —** Have students document their choices, reasoning, and outcomes in decision journals or decision trees. This practice promotes deep thinking and grit, encourages assertiveness in justifying decisions, and reinforces stewardship by considering group impacts.

ENCOURAGE GOAL SETTING & SELF DIRECTION

- ☐ **Foster Actionable Goal Setting —** Make reflection and goal setting a regular classroom practice. Students should set goals, track progress, celebrate achievements, and establish new objectives based on what they still need to accomplish. Guide them in defining both short- and long-term goals with clear, actionable steps. This process builds resilience through incremental success, promotes assertiveness in expressing aspirations, and fosters stewardship by encouraging accountability within the learning community.
- ☐ **Break Goals into Concrete Steps —** Instead of vague goals, have students work backward from a desired outcome to outline concrete steps. For example, if they want to improve in a subject, they can identify study habits and key milestones. Peer reviews, where students share progress and offer feedback, further enhance accountability and optimism. This strategy improves focus by making tasks manageable and combats disillusionment by celebrating every step forward.
- ☐ **Use Visual Goal Mapping —** Encourage students to create goal maps illustrating the steps from their current abilities to their desired outcomes. These visual guides promote deep thinking, help track progress, and reinforce optimism by making success tangible.
- ☐ **Develop Reflection Portfolios —** Have students maintain self-reflection portfolios to document their learning journey, including goals, strategies, successes, and lessons from setbacks. This ongoing record nurtures self-direction, assertiveness, and resilience while fostering stewardship as they recognize their growth and contributions over time.

FOSTER OPPORTUNITIES FOR CIVIL DEBATE

- ☐ **Set Classroom Norms Together —** On day one, collaborate with students to establish expectations for respectful communication, active listening, and conflict resolution. Co-creating these norms fosters ownership, making students more committed to upholding them in discussions. Regularly revisiting them keeps expectations clear, addresses challenges, and ensures all students feel safe and empowered to contribute.
- ☐ **Debate the Opposite Viewpoint —** Have students argue a position they don't personally hold to build empathy, critical thinking, and resilience. Structured debates with clear guidelines teach respectful discourse, challenge assumptions, and strengthen evidence-based reasoning—essential skills for navigating complex social issues.
- ☐ **Use the "Flip Debate" Method —** Students first defend their personal beliefs, then switch to argue the opposing view. This deepens assertiveness and empathy by pushing them beyond their comfort zones, encouraging engagement with counterarguments, and broadening their understanding of complex topics.
- ☐ **Rotate Debate Roles —** Organize panel debates where students switch roles — moderator, advocate, and fact-checker — to ensure diverse participation. This structure sharpens analytical skills, fosters collaboration, and reinforces the importance of fair and responsible discourse.
- ☐ **Encourage Reflection —** After debates, have students assess how their views evolved, what they learned from opposing perspectives, and how they can apply civil discourse skills in real world discussions. Guided journals, discussion prompts, or one-on-one debriefs deepen self-awareness, reinforce empathy, and build resilience through constructive feedback.

Crucial Conversations Framework
A Step by Step Guide for Teachers

Engaging in crucial classroom conversations builds resilience by teaching students to navigate challenges, express themselves confidently, and manage conflicts constructively. This type of dialogue fosters emotional intelligence, adaptability, and problem solving skills, preparing students to face adversity with a growth mindset.

Create a Culture for Crucial Conversations

Be intentional by moving beyond surface level expectations to create meaningful norms that foster authentic, courageous dialogue.

1. Establish norms that do real work; they should shape behavior, not just exist on paper.
2. Address hidden barriers — students may agree to norms but still fear judgment or exclusion.
3. Make respect active by teaching students how to disagree constructively, not just politely.
4. Teach Critical Listening — help students move beyond waiting for their turn to speak by truly hearing and engaging with different perspectives.
5. Practice and model Civil Debate and intellectual humility by demonstrating how to hold strong views while staying open to change.
6. Normalize uncertainty and discomfort; growth happens when students wrestle with complexity.
7. Build repair mechanisms so that, when norms are broken, students understand how to restore trust.

Before a Planned Conversation

SET THE STAGE FOR DIALOGUE

Be proactive by stepping forward into areas of concern and taking definitive action.

1. Prepare your mindset by acknowledging your own biases and practicing self awareness.
2. Select thoughtful materials and resources that encourage critical thinking.
3. Define the purpose by articulating clear learning objectives.

STRUCTURE THE DISCUSSION

Be prepared by anticipating diverse perspectives and potential challenges.

1. Develop discussion questions:
    a. Start with neutral, fact based questions to establish shared understanding.
    b. Introduce opinion based prompts that invite reflection and debate.
    c. Use perspective shifting questions (e.g., "How might someone from a different background view this?").
2. Establish ground rules:
    a. Respect all participants and listen to perspectives — disagree with ideas, not people.
    b. Speak from your personal understanding ("I feel…" instead of "You should…").
    c. Listen to understand, and do not interrupt.

During a Planned or Unplanned Conversation

MANAGE YOUR ROLE AS A FACILITATOR

Be authentic and present by acknowledging that the conversation is both difficult and important.

1. Avoid the "expert trap" by guiding discussion rather than providing all the answers.
2. Model constructive dialogue:
    a. Call out harmful statements as harmful.
    b. Challenge misinformation while maintaining a nonjudgmental stance.
    c. Validate diverse lived experiences without personal bias.

ENSURE EVIDENCE BASED DISCUSSIONS

Be factual by leveraging data and examples to provide context and credibility.

1. Encourage fact checking if controversial claims arise.
2. Use multiple sources to present relevant perspectives with reliable supporting evidence.
3. Discuss bias and perspective to help students recognize the difference between opinions, facts, and misinformation.

ENCOURAGE OPEN AND INCLUSIVE DIALOGUE

Be empathetic by recognizing the root causes of objections or biases.

1. Acknowledge emotions if students express strong feelings.
2. Ensure representation by asking, "Whose voice is missing?" and inviting alternative viewpoints.
3. Use active listening techniques:
    a. Summarize what students say to show understanding.
    b. Encourage paraphrasing and clarifying questions.
    c. Use nonverbal cues (nodding, eye contact) to reinforce engagement.

GUIDE THE CONVERSATION TOWARD MEANINGFUL TAKEAWAYS

Be decisive by taking responsibility as the instigator of the conversation.

1. Manage conflicts respectfully by facilitating a "pause and reflect" moment.
2. Encourage self reflection by asking, "What's something new you've considered today?"
3. Decide on the next steps by identifying how the discussion connects to real world action or future learning.

After Every Conversation

PROVIDE FOLLOW UP AND REFLECTION

Be supportive by acknowledging that the conversation is just the start of a process, not the end.

1. Offer additional resources such as books, articles, or experts for further exploration.
2. Guide students in generating critical questions to explore resources and deepen their understanding of the topics discussed.
3. Check in with students, particularly those who appeared distressed, and offer to debrief privately and in small groups.
4. Encourage continuous dialogue by asking students how they would like to continue exploring the topic; consider providing an anonymous way for students to do this.

Develop Communication Skills

Developing communication skills, and enabling student agency are all tied to crucial conversations because they empower students to express needs, navigate challenges, and take ownership of their learning.

The following are examples of how to practically engage students in these critical aspects.

- Use whiteboards, sticky notes, or shared digital documents where students respond to each other's ideas in writing before speaking. This allows quieter students to formulate thoughts and participate meaningfully in discussions. Encourage students to articulate their ideas clearly and promote stewardship by fostering a supportive environment for constructive feedback. This not only addresses challenges related to a lack of focus and deep thinking but also builds resilience by creating safe spaces for honest, thoughtful expression.
- Implement short, structured speaking activities where students practice telling personal stories, explaining concepts, or summarizing learning to a partner or small group. Repeating this over time builds confidence and fluency in communication. In addition, facilitating peer review sessions where students provide one another with targeted, positive feedback reinforces the practical application of communication skills. This strategy nurtures optimism by showcasing the tangible benefits of effective communication and bolsters resilience as students learn to navigate and overcome misunderstandings in real time.
- Organize regular small group sessions where each student takes turns summarizing key points from a discussion, asking clarifying questions, and reflecting on peers' contributions. This practice enhances assertiveness, ensuring every voice is heard, and builds stewardship as students learn to value and build on each other's ideas.
- Utilize online platforms or classroom blogs where students can engage in asynchronous discussions. This method allows students time to formulate thoughtful responses and provides opportunities for quieter students to shine, fostering deep thinking, resilience in revisiting their ideas, and optimism by celebrating collaborative insights.

Set Expectations of Service Toward Others

- Create a classroom space where students can anonymously post small needs (e.g., "I'm struggling with fractions"), allowing peers to offer help. This normalizes mutual support, reinforces stewardship, and builds a sense of shared responsibility.
- Assign rotating roles that encourage students to take initiative in ways that benefit others, such as mentoring younger students, organizing materials, or leading check-ins. Recognizing these as leadership moments fosters assertiveness and highlights the positive impact of service. Structured reflections help students analyze challenges, celebrate successes, and build resilience.
- Integrate service learning projects where students identify a community need, develop a plan, and implement solutions together. This hands-on approach strengthens deep thinking, resilience, and teamwork while instilling stewardship through meaningful, real world contributions.

Enable Student Agency

- Give students the freedom to choose their projects, learning paths, and classroom roles. This strategy encourages students to align learning with their interests, set personal goals, and choose topics that intrigue them. In doing so, it fosters assertiveness as students learn to advocate for their own needs, builds resilience by prompting them to navigate challenges independently and learn from failure, and nurtures optimism as they envision a future shaped by their own decisions.
- Empower students to propose and lead classroom initiatives — such as organizing study groups, developing new club ideas, or creating community service projects — that address real world issues. This strategy promotes stewardship as students take responsibility for improving their community, fosters assertiveness by requiring them to plan and advocate for their ideas, and builds resilience through the process of implementing and iterating on their initiatives. It also instills optimism by demonstrating that their innovative contributions can lead to meaningful change within and beyond the classroom.
- Implement choice boards or project menus that allow students to select assignments and projects aligned with their interests and learning styles. This strategy encourages self directed inquiry and deep thinking, as students are challenged to research and select tasks that resonate with their strengths. By making deliberate choices, students build assertiveness and resilience through experiential learning, and cultivate optimism by seeing the tangible impact of their decisions on their academic outcomes.
- Have students co-create personalized learning contracts that outline their academic goals, preferred study methods, and success criteria. This strategy empowers learners to take control of their educational journey, building assertiveness as they set and pursue their own objectives, and fostering resilience as they reflect on progress and setbacks. It also nurtures optimism by demonstrating that their individual choices can shape a meaningful, self directed path forward.
- Organize regular student led conferences where learners present their progress, challenges, and future plans to peers, teachers, and parents. This strategy reinforces assertiveness by having students articulate their learning experiences, builds deep thinking and resilience through critical self assessment, and promotes optimism by celebrating personal achievements and mapping out pathways for growth. It also enhances stewardship as students become responsible for communicating their role within the learning community.

CULTIVATING SUSTAINED INQUIRY IN THE CLASSROOM:

Shifting the Focus to **Deep Thinking**

Sustained inquiry is the driving force behind deeper learning — ongoing, rigorous engagement with questions that sharpen critical thinking, challenge assumptions, and fuel meaningful understanding. It's not just an academic tool; it’s a necessity, building adaptability, problem solving, and innovation skills.

Research backs this up; data shows that students engaged in inquiry driven environments are better prepared for future success.

According to a systematic review of 20 years of research, **students who focus on Career and Technical Education** (CTE) courses, which often incorporate inquiry based learning, **show higher student success rates**, from high school graduation to enrolment in Higher Education programs, to securing gainful employment.

These students are also better equipped for college and careers, as inquiry based learning cultivates essential soft skills like metacognition and self-advocacy.

With the **World Economic Forum predicting that over 1 billion people will need reskilling by 2030**, schools that champion sustained inquiry do more than teach — they ignite curiosity, build resilience, and shape future ready leaders who are set to thrive.

In this rapidly changing world, the ability to engage deeply with complex ideas isn't just valuable; it's essential. Yet, as student attention spans shrink and disengagement rises, educators face a growing challenge as they consider how to engage students in meaningful, sustained learning.

Research indicates that while the instinct may be to simplify and shorten lessons to accommodate perceived shorter attention spans, providing students with protected, intentional time to engage in inquiry leads to more meaningful learning outcomes. By rethinking how we structure time and tasks, we can cultivate classrooms where sustained inquiry becomes the norm — spaces where students learn to navigate discomfort, apply their skills in new ways, and develop persistence to tackle challenges. They leave not just with answers but with more powerful questions, ready to keep exploring, thinking, and growing.

A classroom rooted in sustained inquiry may not always look or sound "quiet." Instead, it hums with purposeful activity — students collaborating in small groups, debating ideas, and testing hypotheses.

There is a balance between moments of individual thought and collective discussion, with students navigating the discomfort of not always having immediate answers. Students work together to solve complex problems, exchanging ideas and building on each other's thoughts. Tasks are designed to require students to pause, analyze, and consider multiple perspectives before reaching conclusions. There are intentional and prolonged technology free times where, by limiting distractions, students can engage in sustained play, experimentation, and meaningful reflection.

>>

Here are some important considerations for embedding sustained inquiry in a classroom or school.

Shift the Focus From **Management to Learning**

Too often, classroom management strategies dominate instructional decisions. When the focus is on maintaining order, the energy shifts away from fostering thinking and learning.

While structure is essential, it's equally important to allow space for "organized chaos" — the productive energy of a room where students are collaborating, debating, and actively constructing knowledge. Sustained inquiry flourishes in these moments of apparent messiness, where the process of learning takes precedence over rigid control.

Design **Open Ended Tasks**

Create problems or questions that require students to think beyond the obvious and to engage collaboratively.

For example, a math class might start with a real world scenario that demands creative problem solving rather than following a prescribed formula.

In a science class, instead of providing a standard lecture on climate change, the teacher presents students with a real world scenario:

Imagine your community is experiencing an unexpected increase in extreme weather events. You have been tasked with proposing a local action plan to help mitigate the effects of climate change. How will you gather data, assess risks, and create solutions?

This task pushes students beyond rote learning, requiring them to:

- ☐ Investigate scientific principles
- ☐ Think critically
- ☐ Propose creative solutions

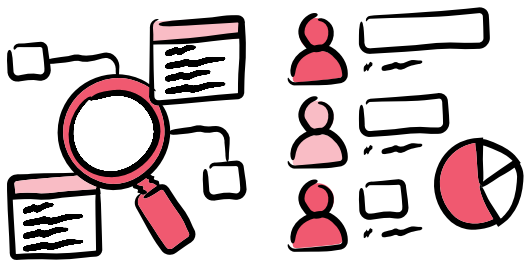
Leverage the **Power of Collaboration**

Create opportunities for students to engage in sustained inquiry by working together on meaningful activities. Encourage group work where students collectively explore complex problems, ask questions, and build on each other's ideas over time.

Students, in the climate example, would form teams, each assigned a different role — climate scientist, urban planner, community advocate, or policymaker. They must research, debate, and integrate their knowledge to propose solutions.

Over several days, they:

- Conduct research using credible sources.
- Engage in structured discussions where they challenge and refine their ideas.
- Present their proposals and receive peer feedback, encouraging ongoing inquiry.



Normalize **Discomfort**

Encourage students to embrace the uncertainty that comes with tackling challenging tasks. Highlight moments when struggle leads to breakthroughs.

Throughout any project or learning experience, the teacher should normalize uncertainty and struggle. There will be moments when students encounter conflicting data or difficulties in consensus building. They may struggle when they don't know the right answer or the next step they should take.

Some strategies and approaches can be used to normalize this discomfort and help students work through them.

1. EMPHASIZE THAT STRUGGLE IS PART OF LEARNING

When students express frustration, the teacher reminds them, *"Confusion means you're thinking! If the answer came too easily, we probably haven't pushed far enough yet."*

Strategy to try:

Post a "Struggle is Learning" board where students document moments when they were stuck and how they overcame obstacles.

2. ENCOURAGE ITERATION OVER PERFECTION

During a design challenge, a teacher tells students, *"Your first idea is rarely your best. I expect you to revise at least twice — because that's how real world problem solvers work!"*

Strategy to try:

Implement a "Draft and Redraft" approach where students submit initial ideas, receive feedback, and refine their work.

3. VALIDATE DISAGREEMENT AND COMPLEXITY

In a debate or discussion, the teacher highlights differing perspectives and says, *"If we all agree immediately, we're probably oversimplifying the issue. Let's explore the gray areas."*

Strategy to try:

Assign students opposing viewpoints to research, even if they initially disagree with them, to build comfort with complexity.

4. SHIFT FROM "FAILURE" TO "PRODUCTIVE STRUGGLE"

As a student is developing a new piece of work (think a piece of art, presentation, writing, podcast etc.), they become frustrated when it doesn't turn out as expected. The teacher reassures them:

"Every great artist/writer/engineer starts with rough ideas and makes adjustments along the way. Mistakes aren't failures — they're part of discovering your style / approach / refining your idea. What can we learn from this attempt?"

Strategies to try:

- The teacher encourages students to keep a "Work-in-Progress" journal where they reflect on their process, noting challenges, adjustments, and unexpected insights. This reinforces the idea that creativity and growth come from iteration, not immediate perfection.
- Create a "Favorite Mistakes" routine, where the class discusses errors that led to unexpected insights.

5. MODEL GROWTH MINDSET THROUGH TEACHER ACTIONS

If the teacher doesn't immediately know an answer, they model curiosity by saying, *"That's a great question! I don't know the answer yet, but let's find out together."*

Strategy to try:

Keep a "Wonder Wall" in the classroom where both students and the teacher post unanswered questions to research over time.

Create Space and Time for **Focus**

Teachers can cultivate sustained inquiry by protecting extended periods for focused work.

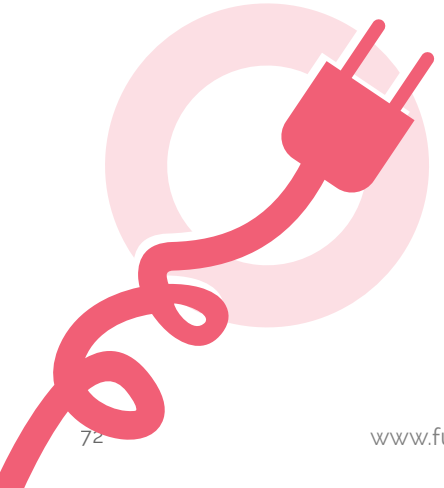
This means minimizing interruptions, reducing the frequent switching between tasks and devices, and creating technology free zones where students can immerse themselves in play, problem solving, and reflection. Intentional use of technology has its place, but it should enhance learning rather than detract from students' ability to engage in prolonged thinking.

Sustained inquiry thrives when students have the time to grapple with complex questions, test ideas, and refine their thinking.

Instead of fragmenting lessons into short, fast-paced segments, teachers can design uninterrupted work blocks where students immerse themselves fully in a task. By implementing a "Deep Dive" model — 30 to 45 minutes where students fully immerse themselves in an inquiry driven project or learning experience, cutting down on constant transitions and interruptions, students can build the stamina to stay engaged. Teachers can also model focused work by reading, writing, or reflecting alongside their students, reinforcing the idea that sustained attention leads to meaningful learning.

Frequent task switching — whether due to digital distractions, interruptions, or jumping from one activity to another — can make it harder for students to engage in deep thinking.

Creating quiet, low-distraction periods helps students develop the ability to sit with a challenge and problem solve without giving up too quickly. Instead of multitasking, students can be encouraged to work in phases — first gathering information, then analyzing it, and finally applying their ideas. Moving away from passive learning, like watching videos, and toward active engagement, like discussions, exploratory writing, or problem solving activities, helps build the mental endurance needed for sustained inquiry.



Technology, while valuable, can also pull students away from deep thinking if it's not used intentionally.

Teachers can create "Analog Thinking" zones where students put aside screens and engage in reading, journaling, sketching, or hands on exploration. Encouraging students to brainstorm ideas before turning to the internet for answers helps them strengthen their own problem solving skills. When technology is used, it should enhance learning — such as analyzing data or collaborating online — rather than replace the opportunity for students to think deeply on their own first.

Deep learning isn't just about staying focused — it's also about giving students time to process, explore, and reflect.

Classrooms that embrace sustained inquiry make room for curiosity driven play, unstructured discovery, and thoughtful reflection. Simple practices like ending a lesson with a quick journal entry or a discussion of lingering questions help students make connections over time. Protecting space for playful experimentation — where students can explore ideas freely without worrying about getting the "right" answer — keeps curiosity alive. As well, building in intentional pauses during lessons allows students to absorb new information and think more deeply, rather than rushing toward quick conclusions.

Design Experiences That **Encourage Exploration Through Play**

Play invites experimentation, creativity, and risk taking — the very qualities needed for deep and sustained inquiry.

However, as students grow older, the opportunities for play are often replaced by situations of passive consumption, in part through the use of phones and devices. By intentionally designing tasks that mimic the exploratory nature of play, teachers can create opportunities for students to engage in authentic, curiosity driven learning that keeps them off their screens and immersed in discovery. Consider some ideas to try:

GAMIFY LEARNING

Turning learning into a game can spark curiosity, deepen engagement, and make complex concepts more accessible. Instead of simply studying historical events, for example, students could create a role playing game where they take on the personas of key historical figures, making decisions based on real world challenges of the time. In a science class, students might design their own board game to simulate ecosystems, testing how different variables affect biodiversity. When students create and play test their own games, they move beyond memorization and into problem solving, strategic thinking, and collaboration.

PROTECT TIME FOR EXPLORATION

Play based learning and deep inquiry take time — more than a traditional, fast paced lesson might allow. If students are given a challenge, like designing a sustainable city in a geography class, they need uninterrupted time to research, experiment, and refine their ideas. A rushed schedule with constant transitions or interruptions can disrupt this process. By protecting extended blocks of time, teachers allow students to fully engage in creative problem solving without being pulled in different directions.

For example, in a math lesson on probability, instead of jumping between multiple activities, students could spend an entire period designing and running their own probability experiments, collecting real data, and analyzing the results. This focused, immersive approach encourages deeper thinking and more meaningful learning experiences.

Sustained inquiry thrives in an environment where students can wrestle with complexity and explore open-ended ideas.

It's deep learning, and it requires discomfort — the kind that comes from grappling with challenging questions and pushing past surface-level understanding.

Not every class or activity needs to wrap up with a neat conclusion. In fact, some of the most powerful learning happens when students leave class with lingering questions — questions that stick with them, that spark curiosity and fuel continued thought long after the bell.

Rather than rushing to tie everything up "in a bow," we should embrace unfinished discussions. This mindset encourages students to reflect on what they've learned, identify gaps in their understanding, and return to class eager to dive deeper.

ENTREPRENEURSHIP FOR EVERY STUDENT:

A Necessary Shift in Education

Entrepreneurship is often mistakenly viewed as relevant only to business minded students, but its benefits extend to all. Whether a student aspires to be a scientist, artist, teacher, or engineer, entrepreneurial skills empower them to take initiative, think critically and innovate within their chosen fields.

A growing body of evidence suggests that entrepreneurship experiences in middle and high school are a powerful tool for developing essential skills such as problem solving, communication, empathy, and leadership. More than just business ventures, these experiences engage students in meaningful, passion driven learning that fosters optimism, combats disengagement, and equips them for a dynamic future. It is time for school leaders to recognize that every student should have the opportunity to engage in entrepreneurship as a core part of their education.

10 CHARACTERISTICS OF SUCCESSFUL ENTREPRENEURS

1. Curiosity
2. Willingness to Experiment
3. Adaptability
4. Decisiveness
5. Self Awareness
6. Risk Tolerance
7. Comfort with Failure
8. Persistence
9. Innovative Thinking
10. Long Term Focus

Source: Harvard Business School

There are clear connections between in demand skills and an entrepreneurial mindset.

Curiosity and self awareness are vital in both contexts, demonstrating their fundamental importance for navigating a rapidly changing world. Resilience, flexibility, and agility are essential not only for the adaptability that defines top entrepreneurs, but also for the risk tolerance and comfort with failure that allows them to learn and grow from setbacks. These qualities, combined with persistence, enable entrepreneurs to navigate uncertainty, embrace challenges, and ultimately achieve long term success.

Creative thinking and empathy are direct expressions of the innovative thinking and willingness to experiment necessary for entrepreneurs to meet the changing needs of their customers, while analytical thinking comes to bear in entrepreneurs evaluating opportunities, assessing risks, and solving problems in the face of limited resources. By integrating entrepreneurship into the school experience, educators can provide all students with the opportunity to develop practical, transferable skills that prepare them for an uncertain future.

> Schools that embrace entrepreneurship education foster a culture of innovation, equipping students not only to adapt to change but to drive it.

TOP 10 FUTURE READY SKILLS

1. Analytical Thinking
2. Resilience, Flexibility & Agility
3. Leadership & Social Influence
4. Creative Thinking
5. Creative Motivation & Self Awareness
6. Technological Literacy
7. Empathy & Active Listening
8. Curiosity & Lifelong Learning
9. Talent Management
10. Service Orientation & Customer Service

Source: Future of Jobs Report 2025, World Economic Forum

One of the most compelling aspects of entrepreneurship education is its ability to deeply engage students by aligning with their passions and personal interests. Unlike traditional learning (which can feel disconnected from students' lives), entrepreneurship provides a platform for students to explore topics they genuinely care about. Whether it's fashion, technology, sustainability, or social justice, students can build projects around their passions, making learning both relevant and exciting.

This intrinsic motivation leads to a deeper commitment to learning, as students see firsthand how their knowledge and skills apply in the real world. Instead of passively absorbing information, they become active creators, driving their own educational journeys. This engagement is particularly crucial in combating student apathy and disengagement — challenges that many schools are struggling to address.

Entrepreneurship as a Tool for Optimism and Resilience

One of the most underrated benefits of entrepreneurship is its inherently optimistic nature. Starting a business or a project requires belief in the possibility of success, even in the face of obstacles. By engaging in entrepreneurial experiences, students develop resilience, learning that setbacks are not failures but opportunities for growth and iteration.

This mindset shift is powerful in a school environment where many students feel disconnected or discouraged. Instead of seeing education as a series of high stakes tests and rigid rules, students come to view it as a space for exploration, innovation, and personal development. This optimism extends beyond their projects, influencing their overall outlook on their futures and capabilities.

Empathy: Understanding and Addressing Needs

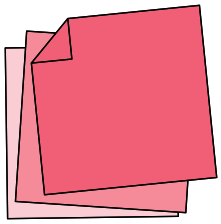
Successful entrepreneurs solve problems by deeply understanding the needs of their customers or communities, often using the Design Thinking process.

Through entrepreneurial experiences, students develop empathy by engaging with real people, identifying pain points, and designing solutions that improve lives. This ability to see the world from different perspectives not only enhances their entrepreneurial ventures but also makes them better team members, leaders, and citizens.

Communication: Mastering Persuasion and Clarity

Entrepreneurs must be able to articulate their ideas, persuade stakeholders, and effectively engage with diverse audiences.

Students involved in entrepreneurial projects develop essential communication skills through pitching ideas, networking, and collaborating with peers, teachers, and potential investors. They learn to present confidently, listen actively, and refine their messaging — skills that are indispensable in any career path they choose.



DESIGN THINKING

Future Design School offers design thinking workshops for students of all ages, leveraging our deep expertise and experience to drive impactful learning.

Our team of educators and entrepreneurs brings insights from the business world to education, providing students with actionable and repeatable tools they can use to solve problems, build ideas, and identify opportunities. Through experiential activities and real world challenges, students will learn to approach problems with empathy, generate innovative ideas, and build prototypes to test their solutions.

FUTURE PRIZE

Future Prize, an exclusive Future Design School program for middle school students, which we run with organizations around the world, including CIS Ontario and ISABC fosters an entrepreneurial mindset by challenging young learners to identify a real world problem and create an innovative solution.

Through this hands-on experience, students cultivate essential future ready skills, including creative and analytical thinking, adaptability, resilience, and collaboration. By engaging in the entrepreneurial process at a younger age, students gain valuable experience in problem solving, critical thinking, and communication, building confidence and fostering a proactive approach to challenges that will benefit them throughout their academic and professional careers.

This early exposure to entrepreneurial thinking encourages innovation, fosters a growth mindset, and prepares students to become future leaders and changemakers.

Problem Solving: Cultivating Creative and Critical Thinking

Entrepreneurship places students in real world situations where challenges arise naturally. Whether they are developing a product, creating a marketing strategy, or navigating logistical constraints, students must think critically and creatively to find innovative solutions.

Unlike traditional classroom problems with clear answers, entrepreneurial challenges are open ended, requiring ingenuity, adaptability, and resilience. This dynamic approach fosters a mindset that values experimentation and learning from failure — an essential foundation for lifelong success.

YOUNG INNOVATORS

Our Young Innovators program is a sustained learning experience designed to foster innovation and creative problem solving in middle school students.

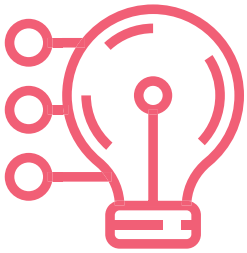
Throughout the program, students will learn to identify real world problems, brainstorm creative solutions, and develop essential skills like critical thinking, collaboration, and communication. Participants learn design methods and get authentic building new business offerings.

Leadership: Taking Initiative and Inspiring Others

Entrepreneurship demands self direction and initiative — traits essential for effective leadership. Students who take on entrepreneurial projects learn how to manage teams, delegate tasks, and make informed decisions under pressure. They experience firsthand the responsibility of guiding a project to success, building confidence in their ability to lead in future academic, professional, and personal endeavors.

Engaging students in passion driven learning combats disengagement and apathy. Instilling an optimistic, resilient mindset, meanwhile, empowers students to embrace challenges and shape their own futures.

School leaders have the power to create environments where every student can benefit from entrepreneurship education. Whether through dedicated programs, integrated curriculum components, or extracurricular initiatives, the time to act is now.



The future belongs to those who can think creatively, collaborate effectively, and lead with purpose. Let's ensure that every student has the opportunity to develop these essential skills through the transformative experience of entrepreneurship.

Future Design School's Entrepreneurship Program

Thousands of middle and high school students from around the world have engaged in our immersive, experiential Entrepreneurship Program. Its 12 stages are designed to build crucial skills while engaging students in a learning experience purpose built to foster optimism, innovation, and deep thinking.

>> Here's a breakdown:

IDENTIFYING A PROBLEM WORTH SOLVING

This stage encourages students to look beyond surface level issues and dig deep to uncover meaningful problems that resonate with them. It's a crucial first step, as a well defined problem forms the foundation of any successful venture.

Skills Developed:

- Curiosity
- Analytical Thinking
- Innovative Thinking
- Critical Thinking

VALIDATING THE PROBLEM

Validating a problem requires students to connect with potential users and understand their experiences. This stage teaches them the importance of gathering data and testing assumptions before investing significant time and resources.

Skills Developed:

- Data Driven Decision Making
- Empathy
- Active Listening
- Willingness to Experiment

VALUE PROPOSITION & OPPORTUNITY

Here, students learn to articulate the unique value their solution offers and assess the potential market opportunity. This stage is vital for defining a clear path forward and attracting support for their venture.

Skills Developed:

- Creative Thinking
- Analytical Thinking
- Problem Solving

UNDERSTANDING THOSE AFFECTED BY THE PROBLEM

Developing empathy for the end user is critical for creating a truly impactful solution. This stage helps students understand the needs, motivations, and pain points of their target audience.

Skills Developed:

- Empathy
- Self Awareness
- Communication

FORMING A USER HYPOTHESIS

Forming a user hypothesis requires students to make informed predictions about their target audience and their needs. This stage encourages them to think critically and test their assumptions.

Skills Developed:

- Critical Thinking
- Analytical Thinking
- Willingness to Experiment

USER JOURNEY MAPPING

Mapping the user journey helps students visualize the steps a user takes to interact with their solution. This stage fosters collaboration and clear communication, ensuring the solution is user centered.

Skills Developed:

- Communication
- Creative Thinking
- Collaboration

USER TESTING

User testing provides valuable feedback and insights that inform the iterative design process. This stage emphasizes the importance of active listening and being open to adapting the solution based on real world interactions.

Skills Developed:

- Active Listening
- Adaptability
- Flexibility

ITERATING BASED ON FEEDBACK

Iteration is a core principle of entrepreneurship, requiring resilience and a growth mindset. This stage teaches students to view feedback as an opportunity for improvement and to embrace failure as a learning experience.

Skills Developed:

- Resilience
- Iteration
- Growth Mindset
- Comfort with Failure

DESIGNING PROTOTYPES

Designing prototypes brings the solution to life, allowing students to visualize and test their ideas in a tangible way. This stage encourages creative thinking and problem solving, often incorporating technology.

Skills Developed:

- Creative Thinking
- Technological Literacy
- Problem Solving

USER EXPERIENCE

In this stage, students observe user interactions, gather feedback, and iterate on their designs. This is crucial for understanding whether the solution effectively addresses user needs and provides a positive experience. Resilience, persistence, and empathy are key as students navigate feedback, often facing challenges and needing to adapt their designs. This process promotes comfort with failure, recognizing negative feedback from users as learning opportunities.

Skills Developed:

- Comfort with Failure
- Empathy
- Persistence
- Resilience

BUILDING A VENTURE PLAN

Developing a venture plan requires students to consider all aspects of their business, from finances and marketing to team and brand identity. Students learn to create financial projections, develop marketing strategies, outline sales plans, identify necessary resources, define metrics for success, build a team, and establish a strong brand identity. This comprehensive planning process is crucial for securing funding, guiding operations, and achieving sustainable growth.

Skills Developed:

- Analytical Thinking
- Long Term Focus
- Decisiveness
- Risk Tolerance
- Persistence
- Service Orientation & Customer Service
- Talent Management

CRAFTING AN EFFECTIVE PITCH

A compelling pitch is essential for securing resources and support. This stage helps students develop their communication skills, leadership potential, and self awareness as they learn to articulate their vision. The pitch is where their idea meets its biggest test, where all their hard work culminates in a chance to share their vision with the world and convince others of its potential. It's an exciting opportunity to showcase their innovation, passion, and entrepreneurial spirit.

Skills Developed:

- Leadership & Social Influence
- Communication
- Self Awareness

Embedding entrepreneurship in schools is more than just teaching students how to start a business; it's about equipping them with the mindset and skills to navigate an unpredictable future with confidence.

By engaging in entrepreneurial experiences, students develop the ability to identify real world challenges, think creatively about solutions, and adapt in the face of setbacks. They gain hands-on experience in problem solving, collaboration, and critical thinking, skills that extend far beyond the classroom.

Programs like these foster curiosity, resilience, and a willingness to experiment, empowering students to embrace challenges as opportunities for growth. Beyond the immediate benefits, entrepreneurship education cultivates essential lifelong skills such as time management, resourcefulness, and leadership, ensuring that students are prepared to thrive in any path they choose. By integrating entrepreneurship into the learning experience, schools can create a culture of innovation, preparing the next generation to shape the future rather than simply react to it.

---

future design school

Email team@futuredesignschool.com to learn more about our unique student programs.

We're helping schools and districts around the world leverage AI effectively.

Ask us about our AI Microcredentials and professional development opportunities.

>> Get the brochure.

Resilience Building Classrooms

As educators, we are uniquely positioned to address the growing challenge of student resiliency.

In North America, students spend approximately 20% of their waking hours in school over the course of a year. These numbers represent a significant portion of their time and, more importantly, an incredible opportunity to help students develop the essential skills needed to navigate challenges and adapt to change.

By re-examining how we use this time within our classrooms and school communities, we can create intentional, impactful experiences that cultivate resilience — the ability to navigate discomfort, apply existing skills, develop new strategies — and emerge stronger and more confident. A resilience building classroom goes beyond teaching content; it is intentionally designed to foster skills such as collaboration, constructive doubt, curiosity, critical thinking, problem solving, and reflection, all within an atmosphere of optimism.

In the resilience building classroom, the flow of a lesson or activity looks different from the traditional model. Rather than beginning with an explanation of concepts or procedures, students are immediately engaged in a collaborative task. This ideally happens on a shared surface, with students standing or moving around and working together to make sense of the task.

>> See this flow in action on **page 92**.

Collaboration is a cornerstone of the resilience building classroom, where students engage deeply and regularly with one another.

The teacher's role is to observe, listen, and ask questions that deepen students' thinking, rather than dictating the steps upfront. This shift allows students to engage in productive struggle — using the skills they already have while discovering where they need new ones — before direct instruction fills in the gaps. An essential piece of the teacher's role as facilitator is to know when to answer student questions, and when to recognize that answering a question may halt deeper learning and discovery.

This classroom model places emphasis on teaching as a dynamic, student centered practice, not on the teacher as the center of knowledge. The consolidation of learning in a resilience building classroom is a chance for students and teachers to co-generate the key ideas, skills, and processes from the lesson or activity. Misconceptions are addressed not as failures, but as opportunities for growth and clarity. This collaborative closing reinforces the idea that learning is iterative and that students are active contributors in their learning.

Creating a resilience building classroom begins with rethinking the teacher's role. A crucial element of this approach is modeling resilience itself. Students benefit greatly from seeing their teacher as a leader who is flexible, responsive, and willing to adapt in real time.

A teacher does not need to "have it all figured out" for their classroom to be successful; in fact, being transparent about the process of trying new strategies, learning from challenges, and refining plans is one of the most impactful ways to teach resilience. By openly sharing how and why adjustments are made, teachers can make the planning and problem solving aspects of teaching visible, demonstrating that growth is a continuous process.

Teachers can also create a culture of resilience through intentional questioning practices. Teachers who consciously and consistently pose meaningful questions help students to navigate challenges, explore multiple perspectives, discover next steps, and engage more deeply in their learning. This approach can foster the adaptability and problem solving mindset that is key to thriving in a resilience building classroom.

Equally important is building a support system within the school. Teachers need access to resources such as ample whiteboard or chart paper surfaces to encourage collaborative work, as well as the opportunity to debrief and learn alongside colleagues who are equally invested in this approach. Building a professional community that values experimentation and dialogue lays the foundation for sustained success in resilience building classrooms.

Ultimately, a resilience building classroom is more than just student centered; it is active, collaborative, responsive, and explicitly values the contributions of each student.

By giving students the chance to explore and play before receiving instruction, we capitalize on an often missed opportunity — to ***see what they know first*** and to help them r***ecognize the need for what they have yet to learn.***

Connecting Thinking Classrooms and Resilience Building Classrooms

Many of the approaches to resilience building classrooms relate back to the work of Peter Liljedahl on Building Thinking Classrooms. At the heart of both models is the intentional design of the classroom environment.

Liljedahl's Thinking Classroom emphasizes "de-fronting" the room, where desks face various directions and are pulled away from the walls to create space for collaboration and gathering. **Students move freely and engage with tasks on vertical, non-permanent surfaces** (VNPS) that encourage ideation and iteration.

Similarly, a resilience building classroom is set up to communicate a flexible, dynamic space for students to experiment. In contrast to traditional desk setups that signal "you sit, I talk," these environments prioritize student agency. Resilience flourishes when students understand that the classroom is a space for *them* to actively use, not passively observe. The use of VNPSs in a Thinking Classroom promotes collaboration, trial and error, and an iterative process that closely mirrors the goals of a resilience building classroom.

When students work on erasable, movable, or hands-on surfaces, they are encouraged to take risks, test ideas, make mistakes, and revise their thinking in real time. This organically facilitates a process of erasing, rearranging, or visually representing their thinking in new ways. Experimenting with different materials and visual structures helps students to see their ideas evolve, reinforcing that learning is an ongoing process of change and refinement — a cornerstone of resilience.

Additionally, the tasks and problems selected in a Thinking Classroom are cognitively challenging and designed to provoke deep thinking and questioning from the beginning of the activity.

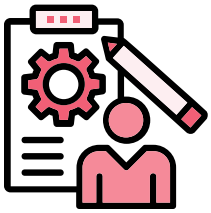
This approach, where meaningful struggle is prioritized, builds curiosity, fosters critical thinking, and often creates a "need to know" that drives learning. Over time, students understand that the learning cycle inherently involves challenge, discomfort, breakthroughs, and new ideas.

Finally, Liljedahl's emphasis on visible, random grouping is another key connection to resilience building. Randomly assigning students to groups eliminates hidden dynamics undermining collaboration, such as preconceived notions about peers' abilities. This practice encourages students to focus on the task and their collective problem solving rather than the "why" behind their group composition. In a resilience building classroom, this randomness also creates opportunities for students to engage with diverse perspectives, navigate differences, and build confidence in their ability to contribute in any group setting.

While intentional grouping has its place, teachers must consider its impact, as students often recognize these decisions, which can unintentionally signal a lack of confidence in their abilities. Resilience grows when all students feel valued and capable, regardless of who they work with.

"Summative assessment should focus more on the processes of learning than on the products," wrote Liljedahl in a 2017 Edutopia article.

In a resilience building classroom, the focus is on developing skills such as deep reflection, collaboration, critical thinking, problem solving, and communication, and these skills are practiced through the lens of the subject matter. By prioritizing and assessing these broader skills alongside content knowledge, teachers send a clear message: the process skills that work to build resilience are just as important as the facts or formulas students are learning. Over time, students internalize these values, which strengthens their confidence and equips them with skills that extend far beyond the classroom.



The "Thinking Intro" and the Importance of Engaging Students Right Away

The urgency for students to **begin thinking, moving, and talking as soon as possible during a class period or activity** is rooted in the need to activate their minds, engage their curiosity, and build ownership over their learning.

When students engage early, they transition from passive listeners to active participants, which can have a profound effect on both their engagement and learning outcomes.

For teachers who are new to this approach, starting small can make all the difference. One simple yet powerful strategy is the "Thinking Intro", which involves immediate student engagement with a challenging task on a collaborative surface. The key is to choose a problem that requires collaboration, persistence, and critical thinking. This should be more than a quick "Warm Up" or "Minds On" — it should require that students work together to discuss, grapple, or ideate for at least 15-20 minutes.

The Thinking Intro encourages students to move, talk, and think actively from the moment they enter the classroom, setting the tone for a resilience building environment. While the idea of students being on their feet and solving problems for the majority of the class might feel intimidating at first, the Thinking Intro is a manageable starting point. It provides teachers with a glimpse into the potential of this approach while allowing them to build confidence in creating active, student-centered spaces.

WHY START IMMEDIATELY?

Author and biochemist James Zull's groundbreaking neurological research revealed that students' brains are more receptive to new information when they are already actively engaged. Immediate interaction through talking, problem solving, or physical movement helps activate neural pathways associated with learning.

What's more, the collaborative nature of student interactions promotes deeper processing. Russian psychologist Lev Vygotsky's work on social learning emphasizes that cognitive development occurs more effectively in social settings, where students scaffold each other's understanding through dialogue and shared problem solving. Talking about the content allows students to internalize and reframe what they are learning, which solidifies concepts more than passive listening or solo practice.

Physical movement also plays a key role in learning. Studies on kinesthetic learning, including the research of Eric Jensen, indicate that incorporating movement into the learning process can increase attention, focus, and retention, especially for younger students. Having students begin the class or activity by standing, moving around, or collaborating physically enhances their cognitive engagement and readiness to learn.

Resilience Building Classrooms are a powerful antidote to Toxic Achievement Culture because they emphasize growth over grades and process over perfection.

Instead of valuing students solely for their achievements, these classrooms foster collaboration, problem solving, and adaptability, helping students build confidence in their ability to navigate challenges.

By prioritizing curiosity, iteration, and reflection, teachers create a space where mistakes are learning opportunities, not failures. This shift helps students develop intrinsic motivation and a healthier, more sustainable approach to success.

Resilience Building Classroom Flow

Start of Class

Traditional Classroom:	Teacher explains concepts and procedures first. Students sit and listen.
Resilience Building Classroom:	Students engage with a problem or task first — ideally in groups on a collaborative surface while standing or moving around. Teacher observes and asks questions to deepen thinking. *See page 94 for ideas on how to kickstart a lesson in a resilience building classroom.*

Student Role

Traditional Classroom:	**Passive** — students absorb information and attempt practice on their own afterward.
Resilience Building Classroom:	**Active** — students collaborate, share ideas, and solve problems independently.

Teacher Role

Traditional Classroom:	**Direct instruction** — teacher leads the lesson, giving explanations and answering questions. *Example: In a math lesson, the teacher explains the steps of solving quadratic equations. After the explanation, students work through practice problems individually.*
Resilience Building Classroom:	**Facilitation** — teacher observes, provides intentional guidance, asks questions to deepen thinking, and monitors student discussions. *Example: Students are given a real world scenario (e.g., planning a community event on a budget). They collaborate in groups to use math (e.g., algebra, budgeting) to solve the problem, then discuss their approaches with the teacher's guidance at the end.*

Collaboration

Traditional Classroom:	**Minimal** — students work individually, with little to no peer interaction during learning, OR group work where one or two students take on all the thinking while others remain passive
Resilience Building Classroom:	**High** — students work in pairs or groups to discuss and solve problems together. ***Example:** Students work in small groups to research and analyze a social issue (e.g., climate change, racial inequality), coming up with a presentation or action plan. The teacher then helps them consolidate their learning by addressing any misconceptions and refining their ideas.*

Focus on Learning

Traditional Classroom:	**Teacher centered** — students listen and follow along as the teacher demonstrates, either through taking notes or moving through the same steps at the same time.
Resilience Building Classroom	**Student-centered** — students explore, question, and try to solve problems themselves. *In math, this approach can be used to give the students a chance to NEED a rule or approach before they are given it. Or, they may already have all of the skills they need to solve the problem, and we need to give them the chance to transfer it to another context or level before we tell them how.*

End of Class

Traditional Classroom:	Teacher reviews content, answers questions, provides additional practice, and/or all students submit the same product.
Resilience Building Classroom:	Teacher consolidates learning by clarifying misconceptions and reinforcing concepts. Class co-generates the key ideas, skills and processes from the lesson.

Outcome

Traditional Classroom:	Provides direct knowledge transfer but may not address misunderstandings in real time or solidify foundational knowledge. *Example: The teacher presents a historical timeline, explaining key events and their significance. Students then complete a worksheet to fill in missing information based on what the teacher has explained.*
Resilience Building Classroom	Promotes deep learning through collaboration, encourages critical thinking, builds resilience and confidence, and targets misconceptions.

Conditions that Support Resilience Building Classroom Practices

FOUNDATION OF BELIEF IN ALL STUDENTS - Students thrive when they know their teacher believes in their unique ability to grow and succeed. This trust fosters confidence and creates a safe space where students feel empowered to take risks, make mistakes, and learn through the process.

TRUST IN THE TEACHER'S ROLE AS A FACILITATOR - A resilience building classroom depends on a teacher who knows when to step back and let students grapple with a task — and when to step in to guide or support. Students trust that their teacher is part of the process with them, striking a balance between independence and intervention.

TEACHER CAPACITY - For students to thrive in resilience building classrooms, teachers must also develop their skills, confidence, and capacity to facilitate this dynamic and responsive approach. Like students, teachers need opportunities to practice, reflect, question, and refine their craft within a supportive school community. This process takes time, but the investment is invaluable — for student learning as well as professional growth. Building teacher capacity for resilience building classrooms is an ongoing journey, but it begins with small, intentional steps.

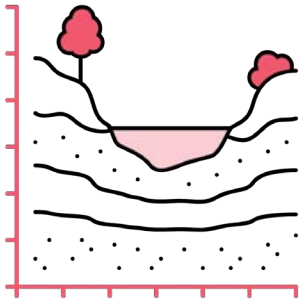
Resilience Building Classrooms in Action: Subject Specific Examples

SCIENCE | GRADES: 9 - 12

Topic: Ecosystem Dynamics

TRADITIONAL APPROACH:

The teacher gives a lecture on ecosystems, explaining different biomes, producers, consumers, and decomposers. Students then complete a worksheet to identify these elements in an ecosystem.



RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are tasked with designing their own ecosystem (using different plants and animals). They must predict how their ecosystem will maintain balance and consider possible disruptions.
- ***Collaboration:*** Working in groups, students share their designs, ask questions about each other's ecosystems, and explore potential environmental challenges (e.g., pollution, climate change).
- ***End of Class:*** The teacher leads a discussion on real world ecosystem crises, using the students' models to demonstrate the impact of disruptions. Misconceptions about balance in ecosystems are addressed with student input, reinforcing the importance of systems thinking.

MATH | GRADES: 6 - 8

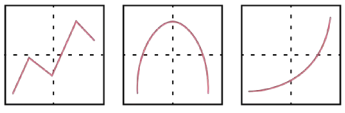
TOPIC: Fractions, Ratios, and Proportions

TRADITIONAL APPROACH:

The teacher explains the concept of ratios and proportions, demonstrating the steps on the board. Students then work through practice problems individually.

RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are given a real world scenario, such as organizing a sports tournament with limited resources. They work in small groups to determine the best ratio of players to teams, and then figure out the most efficient way to allocate resources.
- ***Collaboration:*** Students share their strategies for dividing the resources, discussing the logic behind their decisions, and comparing their methods.
- ***End of Class:*** The teacher consolidates by reviewing the different approaches, addressing any misunderstandings about proportions, and reinforcing how to calculate ratios using group feedback.



Math class represents an exciting resilience building opportunity.

See page 98 for a detailed breakdown and lesson plan.

ART | GRADES: 9 - 12

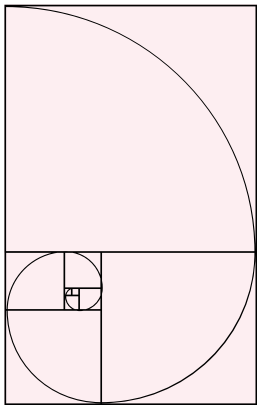
TOPIC: Composition and Design

TRADITIONAL APPROACH:

The teacher explains the concept of ratios and proportions, demonstrating the steps on the board. Students then work through practice problems individually.

RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are given a visual problem, such as creating a piece that communicates a message about community or resilience. They work in groups to brainstorm and plan their compositions..
- ***Collaboration:*** Each group critiques the work of others, offering constructive feedback and suggestions for improvement. They discuss how elements of design can strengthen the message.
- ***End of Class:*** The teacher facilitates a class discussion on the different approaches used by each group. Misconceptions about design principles are addressed, and students reflect on the importance of creative problem solving.



SOCIAL STUDIES | GRADES: 9 - 12

TOPIC: Government Structure & Civic Engagement

TRADITIONAL APPROACH:

The teacher lectures on the branches of government, explaining their roles and powers. Students take notes and later complete a worksheet that matches branches to their responsibilities.

RESILIENCE BUILDING APPROACH:

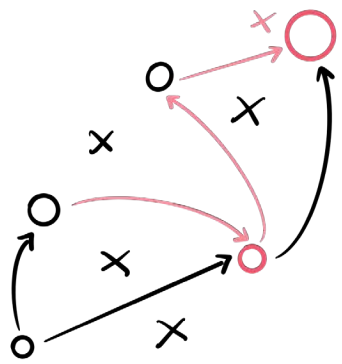
- ***Start of Class:*** Students are given a scenario where they need to address a problem in their local community, such as reducing waste or improving school safety. They are assigned different roles, such as president, senator, or judge, and must work in groups to discuss possible solutions. Before diving into discussion, they build foundational knowledge by exploring the responsibilities of each type of role as a class.
- ***Collaboration:*** Students collaborate with their group members to draft a proposal or a law that addresses the issue. Each group discusses their options, weighing the pros and cons of various approaches. Afterward, students present their solutions to the class, assuming their roles in the process (e.g., the president vetoing a law, the judge reviewing its constitutionality).
- ***End of Class:*** The teacher leads a reflection on the civic process, explaining how government works in practice and how citizens can use their voices in making decisions. Misconceptions about how laws are made and the checks and balances system are clarified.

Resilience Building Classrooms in Action: Subject Specific Examples

PHYSICAL EDUCATION | GRADES: 6 - 8

TOPIC: Teamwork and Adaptive Strategy

TRADITIONAL APPROACH:
The teacher explains the rules of a game (e.g., basketball, soccer, or volleyball) and has students play in teams, focusing primarily on skill execution.



RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are presented with a challenge: *"Your team is playing with an unexpected limitation — maybe you're down a player, you can only pass backward, or one player must stay in a designated zone. How will you adapt?"*
- ***Collaboration:*** In small groups, students discuss and develop a strategy before playing. They test different approaches, adjust based on the challenge, and reflect on what works.
- ***End of Class:*** The teacher leads a discussion on adaptability in sports and life, emphasizing how constraints can spark creative problem solving and resilience.

WORLD LANGUAGES | GRADES: 6 - 8

TOPIC: Conversational Fluency & Communication

TRADITIONAL APPROACH:
The teacher provides a vocabulary list and has students complete translation exercises before practicing sentences in a structured dialogue.

RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are placed in an improv-style language challenge where they must navigate a real world scenario (e.g., "You're in a bakery in Spain. How do you order bread and ask about ingredients?"). To support this, a list of new vocabulary words is provided to help students incorporate context specific ideas and phrases to navigate the scenario.
- ***Collaboration:*** In pairs or small groups, students practice communicating their ideas, using gestures and context clues when they struggle with words. They focus on getting their meaning across, rather than being perfect.
- ***End of Class:*** The teacher leads a reflection on the importance of resilience in language learning, emphasizing that making mistakes is part of mastering a new language.

ENGLISH | GRADES: 3-5

TOPIC: Storytelling and Character Building

TRADITIONAL APPROACH:

The teacher reads a short story and asks students comprehension questions. Students then write their own short stories independently.

RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** The teacher presents a story problem (e.g., "The main character gets lost in the woods. How will they find their way home?").
- ***Collaboration***: Students work in small groups to brainstorm possible solutions and write alternative endings. They reflect on questions such as "How did the character change?" or "What did they learn?"
- ***End of Class:*** Groups act out their alternative endings in short skits or create a "Choose Your Own Adventure" wall, where classmates can vote on their favorite ending by placing a sticker next to it. Students are asked to explain their choice, and the teacher facilitates a discussion that connects their reasoning to the character's development and the overall story arc.

SCIENCE | GRADES: K-2

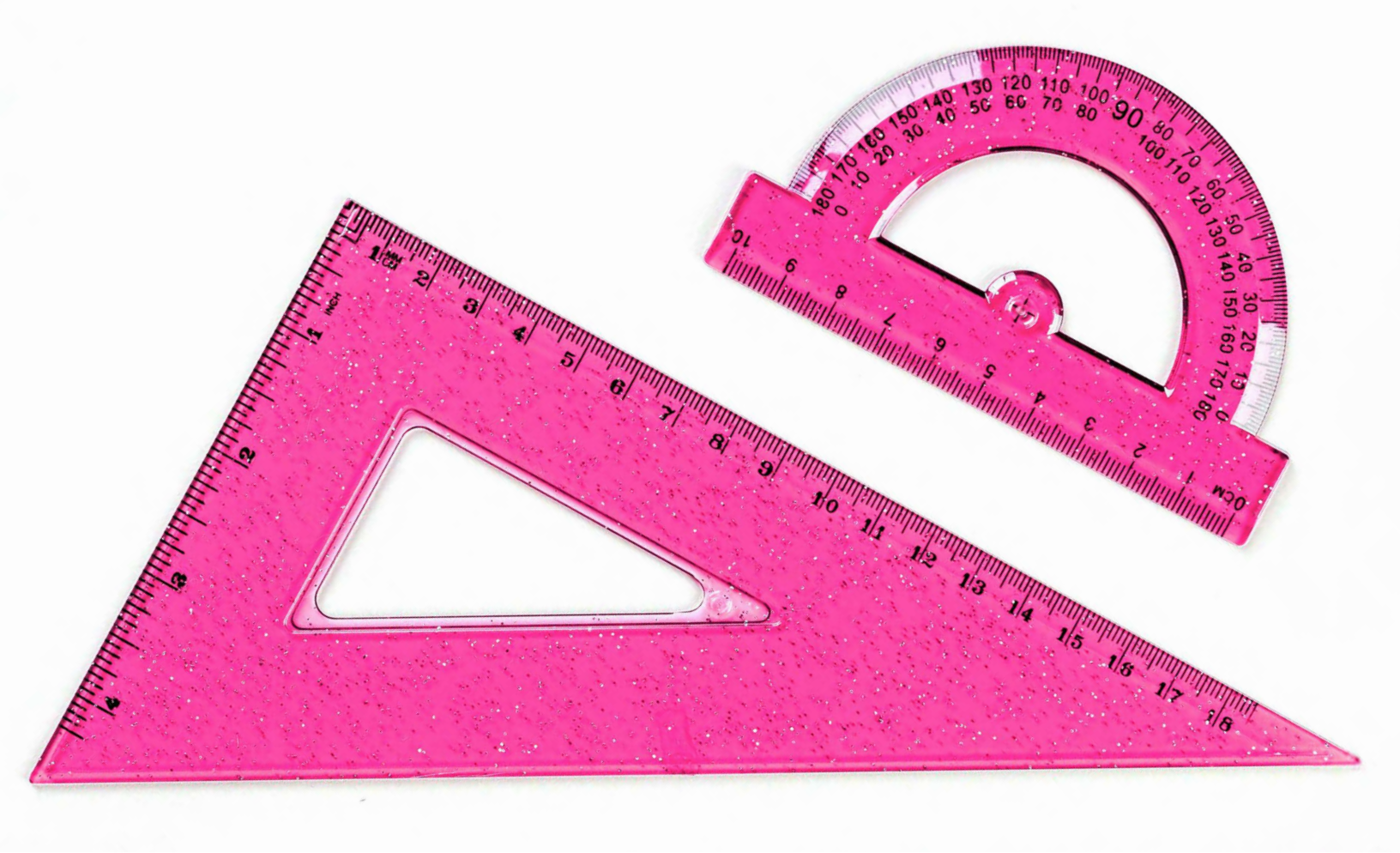
TOPIC: Animal Habitats

TRADITIONAL APPROACH:

The teacher explains different types of habitats (forest, desert, ocean) and shows pictures of animals that live in each. Students then match animals to their habitats on a worksheet.

RESILIENCE BUILDING APPROACH:

- ***Start of Class:*** Students are challenged to build a habitat for a mystery animal (e.g., "Your animal has webbed feet and likes warm water. Where does it live?").
- ***Collaboration:*** In small groups, students brainstorm, sketch, and use classroom materials to create a model habitat for their animal.
- ***End of Class:*** Each group takes turns presenting their habitat in a "Habitat Showcase Walk" where they visit each other's habitats and guess the mystery animal. The teacher then reveals the animals, celebrating creative and accurate choices!



Reframing Math as a Pathway to

Resilience, Focus, and Empowerment

In a math classroom designed for growth, the focus extends beyond equations and procedures to cultivating skills that build resilience, self awareness, and a belief in one's ability to navigate complexity.

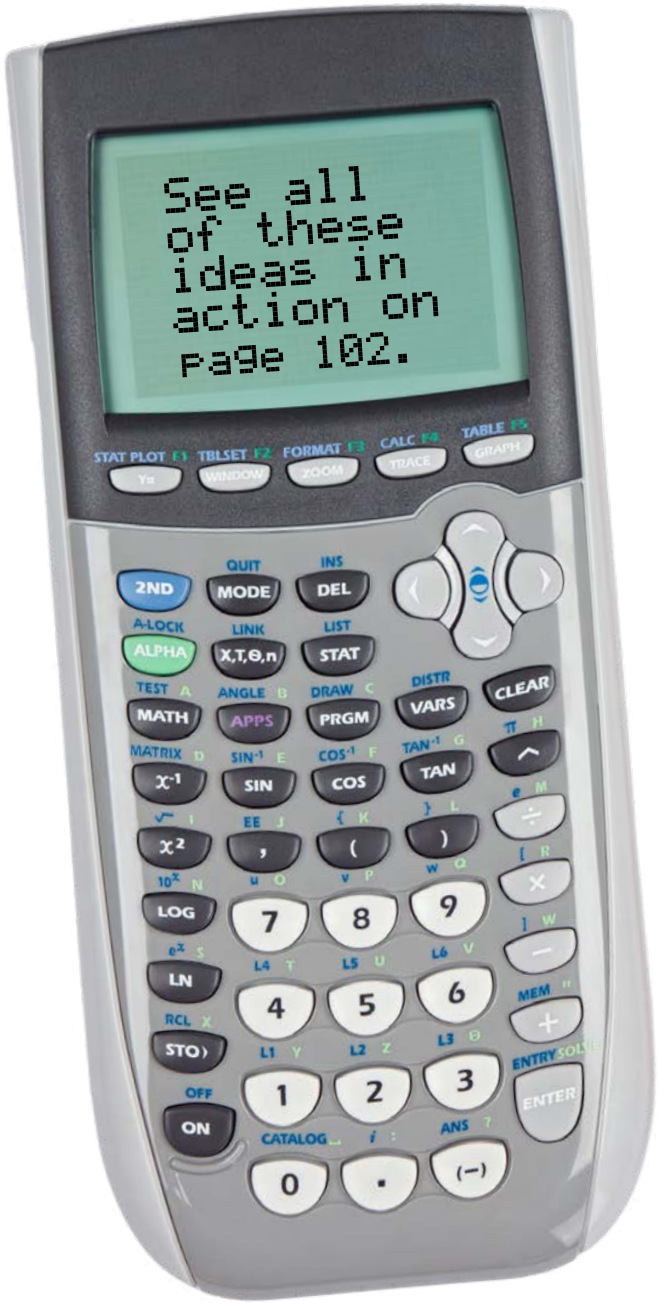
The very nature of math — with its opportunities for problem solving, pattern recognition, and grappling with uncertainty — offers a rich foundation for fostering these life skills.

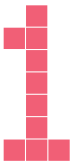
In the context of a resilience crisis, where students may lack opportunities to confront adversity or practice independent thinking, **this approach transforms the math classroom** into a training ground for empowerment. Students begin to see struggle not as something to avoid but as a natural and necessary part of learning and growth.

By designing tasks that are rich in complexity and relevance, and by leveraging strategies that require collaboration, reflection, and persistence, the classroom becomes a space where students practice skills that extend far beyond academics. Math becomes a vehicle for teaching confidence in the face of uncertainty, autonomy in decision making, and the capacity to face life's challenges with focus and determination.

In a world where students feel increasingly disillusioned and disconnected, these kinds of classroom experiences are positively essential.

Teachers, as the adults who spend the most face-to-face time with students outside of their families, hold the transformative power to equip young people with the tools they need to thrive. By reframing math in this way, educators become game changers, using their classrooms to build not just mathematical knowledge, but the foundational skills for resilience and empowerment.

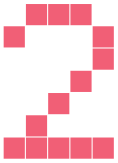




CULTIVATING RESILIENCE THROUGH MATHEMATICAL STRUGGLE

Math naturally involves overcoming difficulties, whether it's solving a complex equation or finding a pattern in data. When students encounter challenging problems, they are faced with moments of frustration.

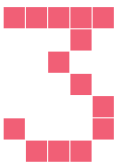
Students build resilience by learning to persevere, trying multiple strategies, and refining their approaches without giving up — expectations that are set and honored by the teacher. Rather than shying away from these struggles, students learn to embrace them as part of the process. This perspective shifts their mindset from seeing challenges as failures to viewing them as opportunities for growth and learning.



FOSTERING FOCUS + SELF AWARENESS

Math tasks that require sustained focus — such as problem solving or applying concepts to real world situations — help students develop the ability to concentrate over extended periods.

This attention building process extends beyond math and enhances overall learning habits. Moreover, working on problems that require students to reflect on their thinking, such as explaining their reasoning or justifying their steps, cultivates metacognition. This self awareness helps students understand how they learn best, enhancing their ability to tackle not only academic challenges but life challenges with clarity and focus.



PROMOTING COLLABORATION + COMMUNICATION

When math tasks are designed to require collaboration, such as group problem solving or peer discussions, students learn to communicate their ideas clearly and listen to others.

This promotes the development of critical life skills such as teamwork, empathy, and the ability to build on others' ideas. Working with peers in math, especially in unpredictable and complex scenarios, helps students develop autonomy, build confidence in making decisions, and learn how to navigate ambiguity. This process also empowers students to see themselves as valuable contributors in a group, not just passive recipients of information.

4

REAL WORLD CONNECTIONS FOR EMPOWERMENT

Reframing math as a tool for solving real world problems — whether related to engineering, economics, or social issues — empowers students to see the relevance of their learning.

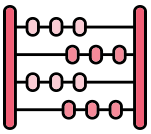
When students are given tasks that directly tie math to solving societal challenges, such as designing a sustainable community or calculating the environmental impact of a product, they are more motivated and see the purpose in their learning. This direct application of math to real life builds confidence, as students can immediately recognize their ability to use their learning to influence change or make decisions.

5

CREATING AN ENVIRONMENT OF ONGOING REFLECTION

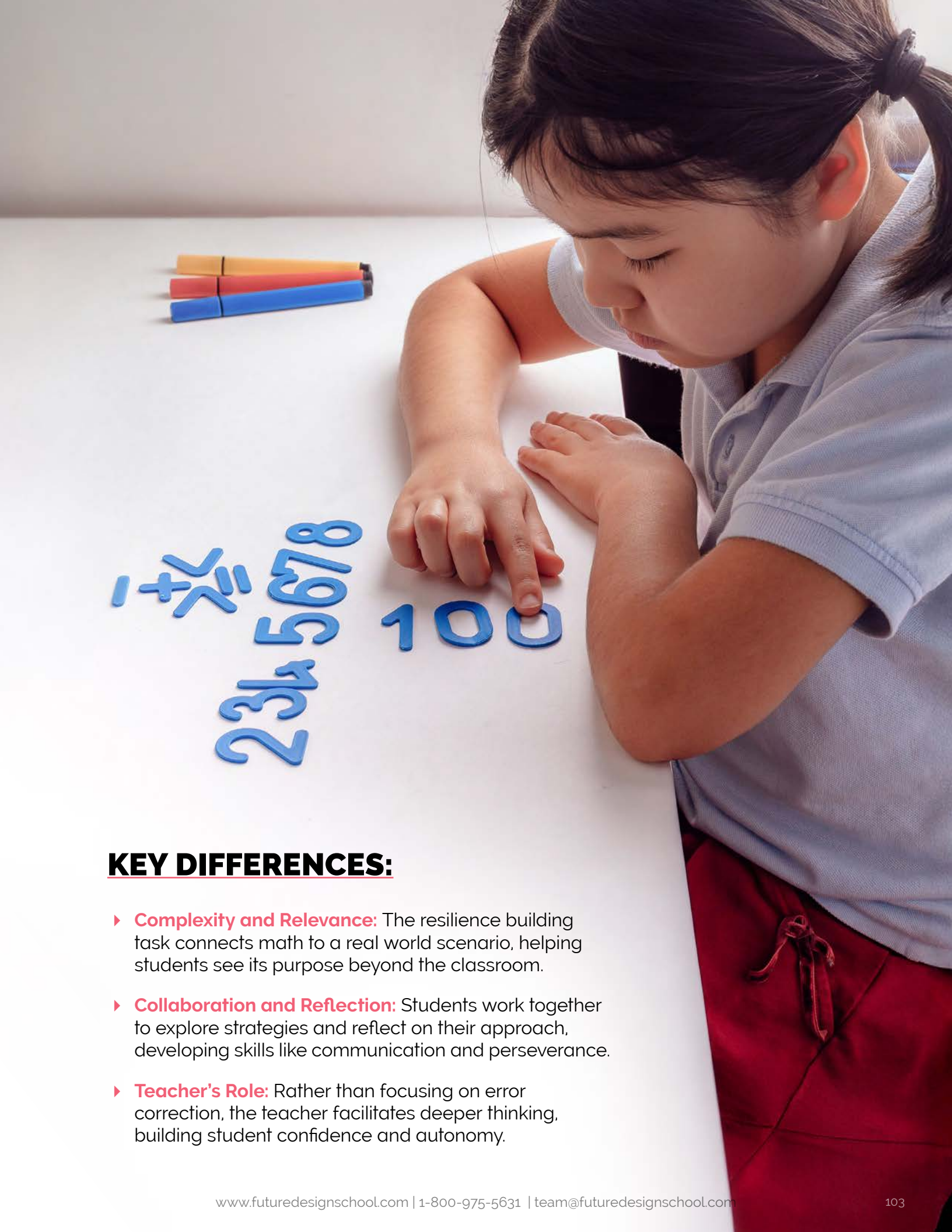
Math classrooms that regularly encourage reflection (such as after completing a task or solving a problem) help students develop a deeper understanding of their own learning process.

Reflection allows students to process their experiences, celebrate successes, and constructively analyze their struggles. This practice develops emotional resilience, as students learn to view their mistakes as opportunities to grow, rather than setbacks. Reflection also reinforces the understanding that success in math is not about perfection but rather continuous improvement and effort.



SIDE BY SIDE LEARNING EXPERIENCE:
Traditional vs. Resilience Building Math Classroom

Traditional Math Classroom	Resilience Building Math Classroom
LEARNING GOAL	
Solve a system of linear equations using substitution.	Understand how to solve a system of linear equations and apply it to make decisions in a real world context.
TASK	
Solve the following system of equations using substitution: 1. $y=2x+3$ 2. $3x+y=15$	A local park is designing two intersecting bike trails. One trail follows the equation $y=2x+3$, and the other follows $3x+y=15$. Where do the trails meet? Why might this point matter for planning? Adjust if one trail budget requires shifting the slope.
INSTRUCTIONAL METHOD	
Teacher reviews the steps of substitution on the board, followed by individual practice on worksheets with a series of similar problems. Students are expected to replicate the process without error.	Teacher presents the bike trail problem and organizes students into small groups working at a shared surface. Students brainstorm strategies for solving (e.g., graphing or substitution) and are encouraged to explore multiple methods.
FOCUS	
Correctly solving the problem.	Exploring the problem, understanding the meaning of the solution, and reflecting on the process of solving it.
TEACHER ROLE:	
Explains step by step procedures and circulates to correct errors.	Facilitates by asking open ended questions like, "What are you noticing about how these equations relate?" or "What challenges are coming up as you try to solve this?"
REFLECTION:	
Minimal or none; students check answers against a key.	At the end of the task, students discuss: • *"What strategies worked for solving the problem?"* • *"Where did you feel stuck, and how did you move forward?"* • *"How might this skill apply to other situations?"*
MINDSET DEVELOPED	
Struggle is something to avoid; math is a series of steps to memorize and follow.	Struggle is an opportunity to grow; solutions often require persistence, flexibility, and teamwork.
SKILLS PRACTICED	
Procedural fluency in substitution.	Procedural fluency in substitution, collaboration, problem solving, adaptability, and self-awareness.



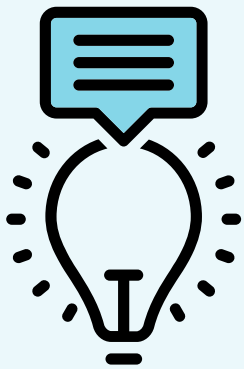
KEY DIFFERENCES:

- **Complexity and Relevance:** The resilience building task connects math to a real world scenario, helping students see its purpose beyond the classroom.
- **Collaboration and Reflection:** Students work together to explore strategies and reflect on their approach, developing skills like communication and perseverance.
- **Teacher's Role:** Rather than focusing on error correction, the teacher facilitates deeper thinking, building student confidence and autonomy.

Armbrae Academy's Journey to **Becoming a Future Design School**

For nearly 140 years, Armbrae Academy — an independent school in Halifax, Nova Scotia — has been a leader in academic excellence, preparing students for success in higher education and beyond.

As the world continues to evolve at an unprecedented pace, Armbrae recognizes that success today requires more than just strong academics: it demands adaptability, resilience, and a mindset geared toward lifelong learning. With that in mind, Armbrae is taking an active role in shaping its students' futures by becoming a Future Design School.



WHAT IS A FUTURE DESIGN SCHOOL?

- A beacon of personalized learning
- Focused on building future ready attributes
- Community connected and responsive
- Devoted to ongoing professional learning
- Committed to justice, equity, diversity, and inclusion

SCHOOLS AND DISTRICTS JOIN OUR NETWORK TO:

- Develop and execute strategic goals
- Engage with key stakeholder groups
- Embed our Portrait of a Future Ready Graduate and learning continuum
- Optimize data collection and technology tools to gain deep insights
- Access engaging, customized curriculum resources
- Deploy innovative assessment frameworks and measurement tools
- Connect with other thought leaders in a worldwide community of education changemakers

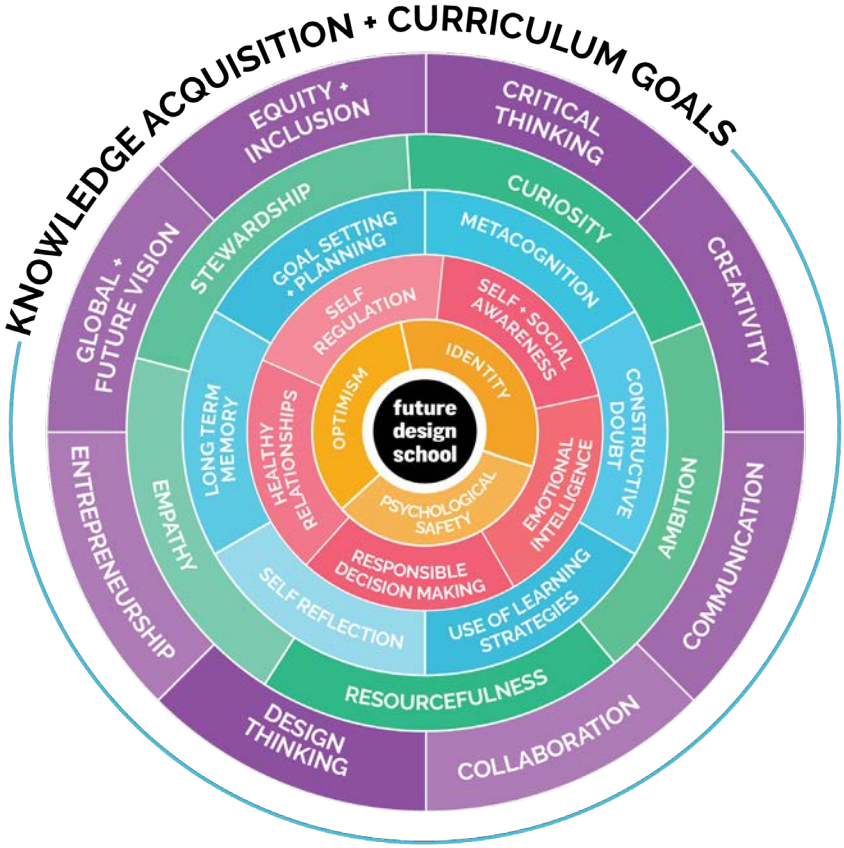
Armbrae's commitment to becoming a Future Design School is an ongoing, multi year journey of professional growth, pedagogical refinement, and student centered innovation.

This transformation is not about replacing what works, but rather deepening effective practices, equipping teachers with new tools, and expanding opportunities for students to engage in meaningful learning. To support this work, participating cohorts of teachers (beginning with the Middle School) participate in ongoing professional development, targeted coaching, and collaborative inquiry. They engage in structured learning communities that provide a space for reflection, experimentation, and collaborative growth. Classroom visits, personalized coaching, and innovative tools and resources ensure that best practices evolve into everyday practice, and that student learning remains at the center of it all.

This transformation is centered on three key commitments:

- → Fostering resilience through Journey Based Assessment
- → Deepening focus and critical thinking through intentional experience design
- → Inspiring purpose and agency through future ready skill development

These are not abstract goals; they are active, tangible commitments that redefine what it means to learn at Armbrae. Through this bold step, Head of School Steve Clarke and Armbrae's teachers and staff reject the notion that schools must adapt to student disengagement by lowering expectations. Instead, they are raising the bar — challenging students to push through difficulties, think deeply, and develop the mindset, skills, and confidence to face the future with purpose



What is Future Design School's **Portrait of a Graduate?**

Informed by our work with schools and districts around the world, and backed by industry insights and research informed pedagogical best practices, Future Design School's Portrait of a Future Ready Graduate represents a fulsome approach to teaching and learning.

We look at future readiness holistically — taking into account students' social emotional needs, as well as essential learning strategies and character traits.

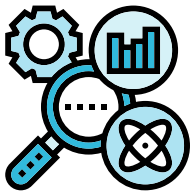
The Portrait is organized into five categories: Wellbeing, Social Emotional Learning, Learning Skills, Character Development, and Future Ready Skills. Within these, we have identified a set of critical skills — backed by research, and inspired by a vision for education centered on resilience, deep learning, and an optimism for the future.

Inspiring Hope and Agency Through Future Ready Skills

The journey begins with a deep exploration of the Portrait of a Future Ready Graduate. Cohort members reflect on their teaching practices and examine how key skills like Constructive Doubt, Collaboration, Stewardship, and Communication can be intentionally developed in students. This phase is about making a direct and meaningful connection between pedagogical choices and the skills students need to thrive.

With a shared vision in place, participating teachers turn their focus to practical application. In professional development workshops, they explore strategies for embedding future ready skills into everyday instruction. The goal is not just to teach skills, but to actively cultivate these skills through experience driven learning. Teachers engage in hands-on activities, experiment with new lesson structures, and collaborate with colleagues to refine their approach.

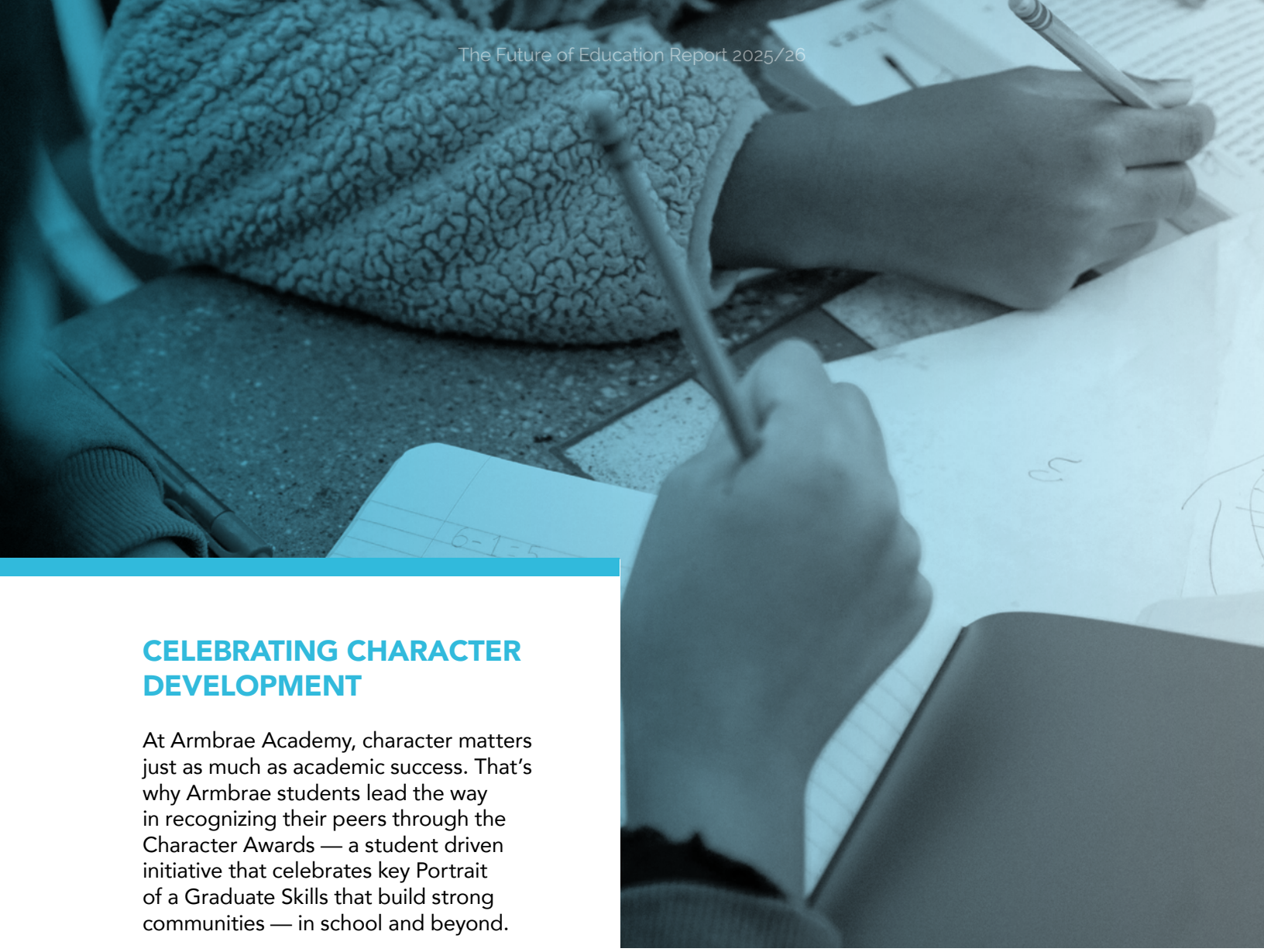
Perhaps the most concerning trend in education today is the sense of disillusionment many young people feel about the future. Rather than looking ahead with excitement, many express doubt, cynicism, or apathy. Armbrae refuses to let this be the norm. **Through the Portrait of a Future Ready Graduate, Armbrae is providing students with a clear roadmap for developing the skills and mindsets they need to navigate uncertainty with confidence.** More than just a list of competencies, the Portrait is a vision for developing individuals who can think critically, communicate effectively, and engage meaningfully in the world around them.



FOR EXAMPLE:

Armbrae teachers are deeply committed to guiding their students in fostering Constructive Doubt — the ability to question assumptions, evaluate information, and seek deeper understanding. In an era where misinformation is widespread and surface level thinking is common, this skill is critical. Rather than passively accepting information, students learn to analyze perspectives, test ideas, and refine their thinking based on evidence. This not only prepares them for academic success but equips them to navigate an increasingly complex world.

In addition, Armbrae focuses strongly and meaningfully on Stewardship — a mindset that fosters responsibility, leadership, and a commitment to positive action. This concept extends beyond environmental responsibility; it is about taking ownership of one's learning, choices, and impact on others. By reinforcing the idea that students have a role in shaping their own lives and communities, Armbrae is ensuring that they graduate not just with knowledge, but with a sense of agency and purpose.



CELEBRATING CHARACTER DEVELOPMENT

At Armbrae Academy, character matters just as much as academic success. That's why Armbrae students lead the way in recognizing their peers through the Character Awards — a student driven initiative that celebrates key Portrait of a Graduate Skills that build strong communities — in school and beyond.

Each year, students in Grades 6–8 nominate their classmates for five unique awards: Curiosity, Ambition, Resourcefulness, Empathy, and Stewardship. Whether it's a student who always asks the big questions, someone who perseveres through challenges, or a peer who goes out of their way to help others, these awards shine a light on the traits that shape responsible and engaged citizens.

Once nominations are in, teachers review the finalists and select the winners, who are honored with certificates, prizes, and a place on Armbrae's Character Awards plaque. More than just an award, this initiative empowers students to appreciate and uplift one another — reinforcing the values that define Armbrae, and the Future Design School programme itself.

Teachers further support this development through goal setting and reflection exercises, guiding students to assess their own growth, set new learning targets, and reflect on the skills they are developing. This process strengthens students' self awareness, confidence, and ability to take ownership of their learning journeys.

This approach is countering the disillusionment and uncertainty that so many students feel. By equipping them with the skills to engage meaningfully with the world, Armbrae is proving that education can be a source of empowerment rather than anxiety. Students are not just learning to succeed; they are learning to lead.

Building Resilience Through Journey Based Assessment

WHAT IS JOURNEY BASED ASSESSMENT?

At its core, Journey Based Assessment is about measuring progress over time through **four key components:**

- Encouraging students to answer (and ask) Critical Questions
- Providing personalized feedback on an ongoing basis
- Inspiring students to set goals, and reflect deeply on their learning journey
- Gathering and sharing thoughtful and actionable documentation of student growth and skill development

A generation ago, students expected setbacks as part of the learning process. Today, many view failure as catastrophic, something to be avoided at all costs. This lack of resilience prevents them from persevering through challenges, solving complex problems, or taking ownership of their learning. To address this, Armbrae has fully embraced Journey Based Assessment (JBA) — a shift from traditional grading toward a model that treats assessment as a continuous cycle of growth, reflection, and feedback.

Instead of traditional grading, JBA ensures that assessment is an evolving process, allowing students multiple opportunities to demonstrate their learning. Armbrae teachers integrate meaningful student reflection and actionable feedback into their teaching practice, and assess progress through a triangulated approach that includes conversations, observations, and product based evidence. This method not only provides a more fulsome picture of student learning but also shifts the student's role in the process. Assessment is no longer something being done to them; instead, they are active participants in shaping their own growth.

For teachers, JBA offers a fresh perspective that values and rewards important student work that often goes overlooked. Observation based assessment, for example, is inherent to teaching; every teacher does it, but often in an ad hoc fashion as they move about the classroom.

A common refrain when teachers are asked to document their observations of student learning is that they lack the time to do so with fidelity. Armbrae, however, leans into observation based assessment by planning observation opportunities in advance, and capturing feedback using a simple app — the results of which are then fed back to students. Music teacher Daniel LeBlanc even uses the speech-to-text feature on his phone to dictate his feedback into the app! This approach ensures that Armbrae teachers can track how students are actioning the feedback they receive — a vital (and in itself assessable) measure of resilience.

DOCUMENTING GROWTH:

Data Driven Insights and Learning Artifacts

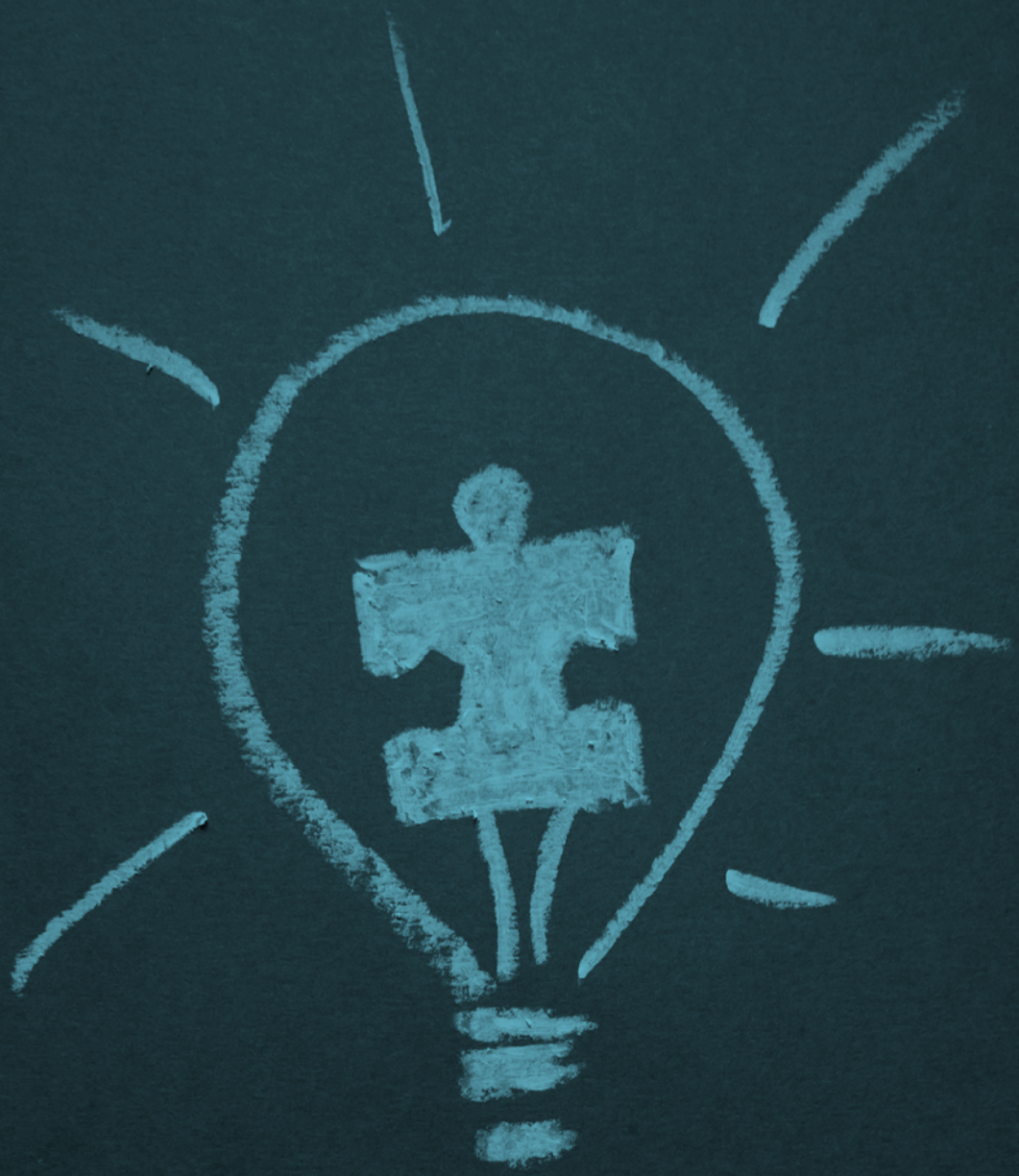
To track progress over time, Future Design School implements an app based system for gathering qualitative and quantitative evidence of student learning.

Teachers monitor skill development and collect evidence of JBA and the Elements in action, by gathering student artifacts that document their growth. These artifacts serve as powerful demonstrations of how students evolve as thinkers, problem solvers, and engaged learners, offering insights into both their achievements and their learning processes.

Most importantly, JBA reframes students' mindsets around struggle and failure by fostering **Conscious Pursuit** — a state in which students engage with their learning intentionally and take ownership of their progress.

Teachers refine strategies to help students develop a growth mindset, using assessment as a tool for empowerment rather than evaluation. When students see assessment as a process for improving rather than as a judgment, they become more willing to take risks, persist through difficulty, and engage in deep reflection. They learn to advocate for their own progress, develop self regulation, and cultivate the ability to manage setbacks. These skills build true resilience — the kind that extends far beyond the classroom and into the challenges of adulthood.

This shift in mindset at Armbrae is not happening in isolation. Journey Based Assessment is deeply intertwined with the Elements of Exceptional Learning, which reinforce a student centered, inquiry driven approach. By ensuring that students engage in meaningful, real world learning experiences, Armbrae is not only fostering resilience but also creating a culture where challenges are expected, embraced, and ultimately overcome.



"Future Design School has cracked the code on better learning — I want that for our Armbrae kids!"

- STEVE CLARKE
Head of School, Armbrae Academy

Fostering Deep Thinking and Focus Through Intentional Experience Design

In an age of constant distraction, students often lack the **cognitive stamina** to engage in sustained inquiry, critical thinking, or meaningful problem solving. Even those with high potential have been found to skim the surface of their learning rather than immersing themselves in deeper exploration.

Armbrae is tackling this challenge by transforming the way students learn. The Elements of Exceptional Learning provide a framework for designing intentional, engaging experiences that push students to think deeply and develop a genuine connection to their work. Instead of passive instruction, teachers craft learning environments where students actively construct knowledge — questioning assumptions, making interdisciplinary connections, and grappling with complex problems.

WHAT ARE THE ELEMENTS OF EXCEPTIONAL LEARNING?

Future Design School's four Elements of Exceptional Learning serve as the foundation for reimagining lesson design and delivery.

Student Centered Approaches

Personalized learning and development opportunities that leverage student strengths to support deep development while ensuring that lessons are inclusive and informed by learning strategies that best meet learner needs.

Journey Based Assessment

Ongoing, actionable assessment that supports holistic development and progress toward students' Conscious Pursuit of learning, promoting meaningful self reflection and feedback, and learning to pose critical questions.

Intentional Experience Design

Learning experiences that are meant to engage students in fun, dynamic, engaging, action oriented experiences that promote student agency and empower meaningful connections.

Competency, Skill & Character Infused Experiences

Opportunities for learners to gain an understanding of and practice key skills, flex their growth, and demonstrate transference of the skills and character traits they are developing.

FOR EXAMPLE

7th Grade science teacher Kaitlyn MacDonald built her Engineering Structures unit around challenging her students to develop and test a prosthetic leg.

Students began by researching the history and design of prosthetics, sparking their imaginations. They then moved into a design phase, collaborating in small groups to create blueprints and material lists for their own below-the-knee prosthetics.

Once their plans were approved, they entered the construction phase, bringing their designs to life from a variety of provided materials, with the added challenge of ensuring the prosthetic could support a student's weight. Finally, they tested their creations in a timed trial obstacle course, and reflected on the entire process.

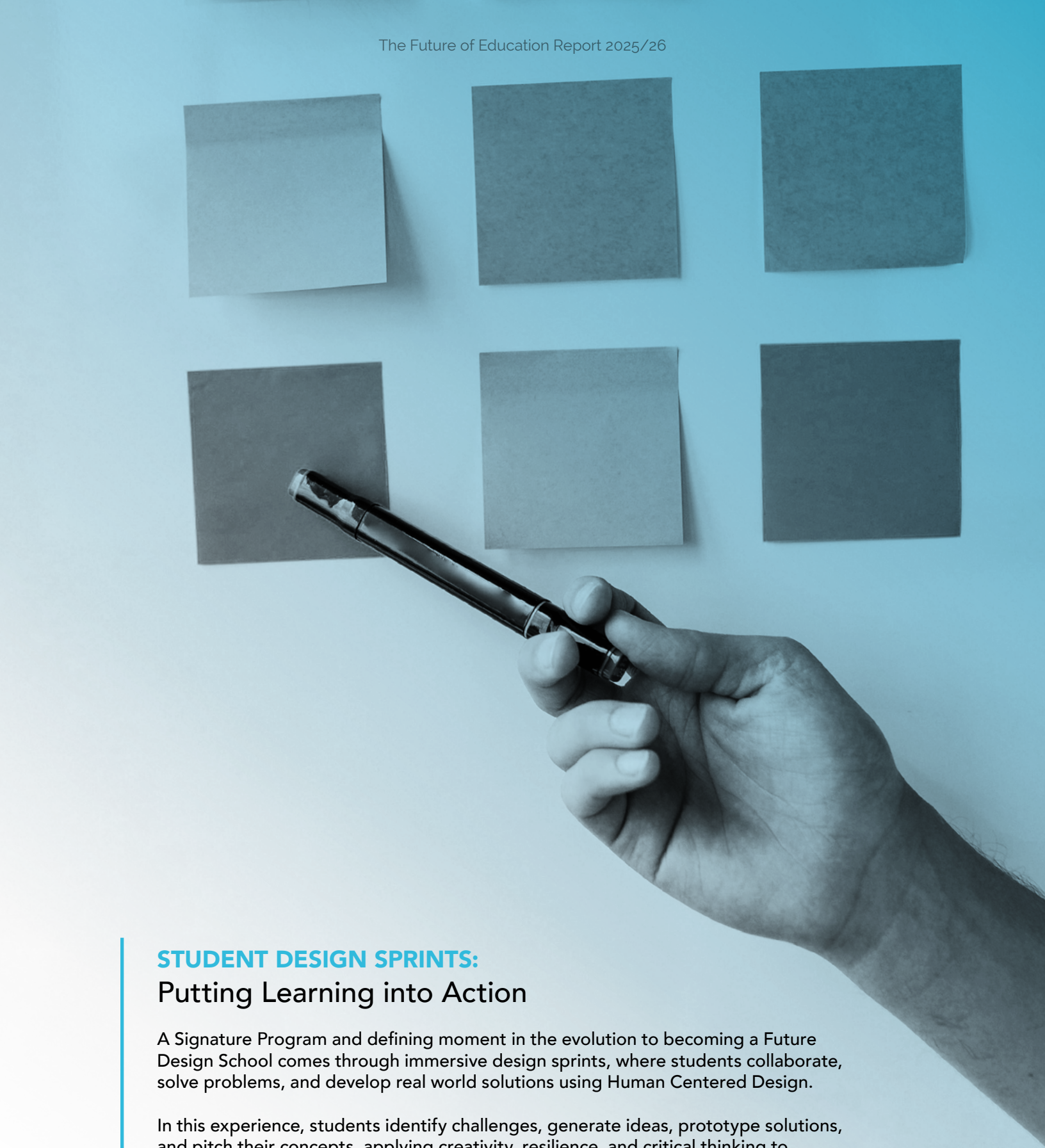
Throughout the unit, mini conferences and discussions encouraged students to evaluate information from multiple angles and consider the perspective of a prosthetic user, fostering deep engagement and meaningful connections to a tangible, authentic challenge.

Kaitlyn and her educator colleagues are taking on the role of experience designers, carefully crafting lessons that spark curiosity and provide opportunities for students to apply their learning in authentic ways. Instead of simply delivering content, they guide students toward exploration and discovery, helping them build the habits of mind that will serve them well into the future.

This shift is deliberate. Superficial learning is being replaced with opportunities for students to engage fully, think critically, and seek **real understanding.**

It's an iterative process, with teachers continually evaluating, refining, and sharing their approaches. In the process, they are developing the cognitive endurance needed to navigate an increasingly complex world. They are learning that deep thinking is not just a skill but a habit — one that requires patience, focus, and intellectual curiosity.

By using the Elements of Exceptional Learning as a guide, educators work to ensure that every classroom remains a dynamic space where inquiry, challenge, and discovery are at the heart of instruction.



STUDENT DESIGN SPRINTS:
Putting Learning into Action

A Signature Program and defining moment in the evolution to becoming a Future Design School comes through immersive design sprints, where students collaborate, solve problems, and develop real world solutions using Human Centered Design.

In this experience, students identify challenges, generate ideas, prototype solutions, and pitch their concepts, applying creativity, resilience, and critical thinking to real world scenarios. Teachers and Future Design School team members serve as facilitators, guiding students through the design thinking process and providing feedback along the way. These sprints reinforce collaboration, experimentation, and problem solving as essential components of learning, ensuring that students develop skills that extend far beyond the classroom.

An Ongoing Journey

By continuously strengthening instructional practice, fostering meaningful student engagement, and ensuring that assessment aligns with deep learning, **teachers are setting a new standard for what a truly future ready education looks like.**

Professional collaboration plays a vital role in the transformation. Through Professional Learning Communities (PLCs), educators engage in small group coaching, peer mentorship, and collaborative planning. These structured but flexible spaces allow teachers to share expertise, test new ideas, and receive targeted support as they refine instructional practices. This ongoing collaboration ensures that teaching strategies continuously evolve, informed by research, classroom experience, and collective reflection.

In addition, classroom visits are a key part of this process, providing teachers with constructive feedback and reflective dialogue. Rather than evaluations, these visits serve as opportunities to observe, document, and refine instructional strategies. Educators engage in meaningful conversations about lesson design, student engagement, and instructional impact, ensuring that innovative approaches are successfully embedded into daily practice.

This transformation is already redefining the student experience. By embracing Journey Based Assessment, Experience Design, and Future Ready Skill Development, Armbrae is proving that students are capable of more than many believe. Students are developing the resilience to face challenges head on, engaging in deep, meaningful thinking, and cultivating the skills and confidence to take hold of their own futures. Through a culture of collaboration, innovation, and intentional design, Armbrae teachers ensure that students won't just pass through school — they will emerge as resilient, engaged, and future ready individuals who are prepared to lead, create, and shape the world ahead.

As part of their journey toward becoming a Future Design School, Armbrae continues to refine and expand its approach. At a time when many schools are lowering expectations, Armbrae is proving that students can rise to the challenge — and in doing so, it is setting a new standard for what education can and should be.

future design school

We can help.

Our team supports schools with strategic planning, professional development and actionable data analysis.

www.futuredesignschool.com | 1-800-975-5631 | team@futuredesignschool.com

future
design
school

www.futuredesignschool.com
team@futuredesignschool.com
1-800-975-5631