

Wellbeing, Creativity and Young People: A Guide for Education Professionals

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Jo Stockdale is the founder of Well Within Reach which, in its broadest sense, is concerned with 'person-centred development', especially of children and young people. Her main area of interest is the very important role of social and emotional competence in the lives of children (and the adults that they will become) particularly those.



who are vulnerable and/or have experienced adversity, distress and trauma. Much of Jo's training focuses on how children's brains develop and grow. She also develops resources to strengthen emotional health and engagement, and also works with a range of agencies to help them meaningfully decode and evidence the 'soft' impacts they support. Jo has a background in creative practice and, through her practice, she helps practitioners to understand the very important role that creativity plays in supporting young people's ability to 'learn, so and be well'.

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# The Mighty Creatives (TMC)

Established in 2009, The Mighty Creatives is an East Midlands charity dedicated to transforming the lives of children and young people in need through the arts, culture, and creativity. Our vision is 'to inspire children and young people to harness the power of the arts for positive change'.

Young people in need experience significant disproportionate disadvantage, including heightened isolation, lack of stability, compromised mental health, lower attainment, and lack of opportunities. We believe that creativity, the arts, and culture have a fundamental role in supporting children and young people in need to improve their personal wellbeing, educational achievement, and life chances in general. Together with young people, educators, and those working in the cultural and creative sector, we help to provide young people in need with access to meaningful creative opportunities.

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# Can You Imagine...

# Introduction

What is known about the human brain is far exceeded by what is unknown. But as we continue to make discoveries in the field of neuroscience, the more we recognise that this knowledge also has a place in classrooms, not just laboratories, it is relevant to school leaders and policy makers, as well as academics.

The evolution of the human species is underpinned by our amazing capacity for learning. There are 86 billion neurons inside the newly born brain, and the majority of these have the capacity to make infinite and continuous connections with other neurons throughout the course of a person's life.

Science tells us that from birth, we are hard-wired for learning, curiosity, imagination, the desire to ask questions, solve problems, and to think creatively. But of course, many children would choose not to be at school if they could. They might say that it is boring or they do not find what they learn interesting.

#### But why?

One of neuroscience's most significant findings is the realisation that it is not merely our DNA, but the environment and the quality of our experiences that have the deepest impact in shaping our brains—the children we once were, the people we are, and who we will become.

Thus we are starting to understand that the reality for many children who "struggle" in some way, is far more complex than just being a "slow", "disengaged" or "difficult" learner. More often than not, "problem behaviour" is the result of a misfiring brain, while mental and emotional wellbeing is the neurological scaffolding on which "good learning" is built. The fundamental truth is every thought, action, decision, behaviour and belief that comes from a child's brain; if we want to change any of these—whether we are concerned with learning, wellbeing or behaviour—it ultimately means changing what is happening in their brains.



# Understanding the Creative Brain

The rapid developments in neuroscience that are helping us to understand what is happening inside all of our heads, are also teaching us about the role of creativity in the human experience—and not just as part of our self-expression. Creativity both increases and accelerates synaptic connectivity. Essentially, it is the creative brain that powers young people to think and learn well. Thus, questions are being raised about how we grow and nurture creative and cognitively diverse brains; questions that, as we emerge from a global pandemic, are perhaps more pertinent now than ever.

Whether we are focused on the present, with what children are learning, how they learn, and how to strengthen wellbeing in ways which support that learning. Or on the future, with how we equip our young people with the competencies they will need to thrive in the world—now is a timely opportunity to rethink the role that creativity should play in their lives.

While creativity may not be a priority when the aftermath of Covid has left many schools with "gaps" to close, weaknesses to strengthen, and a mental health crisis to respond to, we do not need to choose creativity to the detriment of either learning or wellbeing. On the contrary, creativity may prove to be the much-needed ingredient to support schools with both elements at this critical point in time.



# 1. Questions arising from the pandemic

With extended school closures, the formation of bubbles—and continual bursting of those bubbles—the reaction to Covid-19 has largely dismantled how we teach in schools. The education sector has had to respond rapidly and creatively to solve problems concerning what we teach, how children learn, and how we quantify that learning. However, the impact of Covid on young mental health must also remain at the forefront of our minds and there is a valid argument that addressing the scale of young mental ill-health must be our priority.

The DfE's "Transforming Mental Health" green paper of 2017<sup>1</sup> is arguably even more relevant now than it was then. It is certainly a step in the right direction that the government has committed to fund training for senior mental health leads in school from 2021–2025<sup>2</sup>, in alignment with Public Health England's "Promoting Children's Emotional Health in Schools" model.<sup>3</sup> However, the reality is that budget cuts have reduced mental health provisions in many schools over recent years—school counsellors in particular—and it is widely acknowledged that demand for CAMHS (Child and Adolescent Mental Health Services) far outstrips provision.



1. <u>Transforming children and young people's mental health provision: a green paper</u> — GOV.UK (www.gov.uk)

2. <u>Senior mental health lead training</u> — GOV.UK (www.gov.uk)

<sup>3. &</sup>lt;u>Promoting children and young people's mental health and wellbeing</u> — GOV.UK (www.gov.uk)

# 2. The Relationship Between Learning and Wellbeing

Faced with epidemic proportions of mental ill-health, and months of "lost learning" to compensate for; are we stuck between a rock and a hard place?

#### Not necessarily.

The truth is that mental health and learning are two sides of the same coin. It is through the lens of brain development that we can understand how engaging more readily, learning more effectively and bouncing back from adversity, are all pieces of the same puzzle. While neuroscience is a complex field of study—regardless of whether we are senior leaders or classroom teachers, or if it informs our policies or our day-to-day practice in schools—we do not need to know all that much about brain science for it to redirect or reinforce what it means to educate and be educated.

Learning well, doing well, thinking well and being well, all spring from the same source: a healthy brain. This knowledge can no longer just exist on the periphery of children's learning.



Imagine if children's education — our curriculum, our policies, our relationships, values and ethos — were all built around one simple goal: to cultivate strong, healthy, creative, learning-ready brains?

# 3. The Learning-Ready Brain

Our youngest and littlest have evolved with all they need to learn by themselves. It is not a coincidence that they are born with 86 billion brain cells inside their heads. They are equipped to think, engage, investigate, question, to be curious and creative. It may not be a reality in every classroom, but we know instinctively, that enriched environments are the force behind "good learning".

#### But, why?

The development of the brain relies heavily upon its environment, and its experiences play a significant role in shaping and influencing how well it functions. The developing brain has a huge appetite for experiential learning, pro-social activity, and moving the body. When we enrich children's diet with such opportunities, the neo-cortex, AKA the "thinking brain", is on fire!

The neo-cortex is the machine through which learning happens, making up to a million neural connections per second<sup>4</sup>. Known as "neuroplasticity", this phenomenon allows the neo-cortex to continually reconfigure itself, tailor-making our brains for maximum efficiency according to the environment in which we live. But, in spite of its superpower, the thinking brain is also a very lazy organ. Once it has learned how to think or what to do, it defaults to that position—effortlessly. Well-established neural networks allow us to function on "autopilot", for example, if you have ever arrived at work alarmed that you have virtually no memory of your journey, that is why. If you have ever struggled to adapt to seemingly insignificant change, like rearranging your kitchen drawers, that is also why.

Changes that may seem insignificant or trivial still demand a lot from your brain: the formation of new neural connections and the disintegration of redundant networks means that part of your brain must completely restructure itself with new "neural pathways of least resistance". And, as long as we're activating those pathways by using them regularly and consistently, they stay in place—but not if we do not use them.

#### In other words: Use it or lose it!

What this means for children, whose sensory, social and emotional enrichment in the world has been considerably diminished, is inevitable. Lack of use weakens neural connections. Their brains have changed and are no longer primed for classroom life. A generation of children have lacked the stimulation to keep their brains functionally optimised for school life. Why should we expect anything less than cognitive decline?

<sup>4.</sup> https://developingchild.harvard.edu/science/key-concepts/brain-architecture/#neuron-footnote

## Rebuilding the "Learning Brain"

The wonder of neuroplasticity is that brains have evolved to learn rapidly. With a conducive environment of enriched sensory, social and emotional input, synaptic connectivity can be turbo-charged. However, learning-readiness is not compatible with stress or boredom or monotony. Brains are built for multi-modal and multi-dimensional learning which activate all the different sensory areas of the brain simultaneously and stimulates imagination, play, novelty and creativity. Learning is activated by different sights, smells, textures, being outside; from different materials, gravity, space, using their bodies; from laughter, connection, joy, wonder and intrigue.



Imagine if learning looked like that, every day? How can we stimulate multiple brain regions, get neurons firing and wiring, and help young brains be more ready to learn anything?



# 4. Unhealthy Brains: Why Wellbeing Matters

## Problems

Poor emotional health can be found in every classroom in the country. It is reflected in children's attainment, attendance, attitudes, beliefs and behaviours. In 2018, long before we had even heard of Covid-19, mental health charity Young Minds<sup>5</sup> reported that 1 in 8 children had a diagnosable condition. But the added dimension of a global pandemic has been especially unkind to children and young people, with children's Commissioner Anne Longfield's annual report  $2021^6$  concluding that the "1 in 8" figure had risen to 1 in 6, and to 1 in 4 in some areas.

It is inevitable that brains that are not well, do not learn well—especially in the aftermath of a turbulent time, which has been deeply damaging for young mental health. We cannot effectively address "lost learning" without first addressing the intrinsic relationship between wellbeing and learning.

## The Impacts of Stress on Learning

As you read these words, an extraordinary thing is happening inside your head, the home of—by some considerable distance—the world's most powerful computer. Eleven million bits of information are passing through your brain every second, all of which are being continually filtered, without any awareness on your part. Before conscious thought even registers, your subconscious "survival brain" is deciding whether you are in danger or not. Like a neurological traffic light, information tagged "safe" gets the green light, at which point it makes its way to your thinking brain. Then, and only then, can learning happen.

This is the journey of cognition, at any age.

At the opposite end, the proverbial "red light" activates the "fight, flight, freeze" response—a full-on emotional hijack which can completely disable learning capacity. The amber light is the middle ground: the fringes of "fight or flight" with a little too much anxiety and pressure. This is where most of us reside (more often than is good for us), as we navigate the demands of 21st century life.

While not resulting in an emotional hijack, this state certainly inhibits learning, arousing the survival brain—which neither thinks nor learns—and generating biochemicals which slow down neural connectivity.

Of course, all children will encounter difficulties at some point, but far too many are permanently functioning at this level. This diluted stress response easily disguises those who struggle passively or quietly, simply because they are not causing enough problems for adults to notice they need support.

<sup>5.</sup> https://www.youngminds.org.uk/about-us/media-centre

<sup>6. &</sup>lt;u>https://www.childrenscommissioner.gov.uk/2021/01/28/damage-to-childrens-mental-health-caused-by-covid-crisis-could-last-for-years-without-a-large-scale-increase-for-childrens-mental-health-services/</u>

## Toxic Stress

There are those children for whom high levels of enduring stress is an almost perpetual state of being. Now more than ever, in the aftermath of a crisis for which we were ill-prepared to support them through, many continue to live with worry, anxiety, pressure, distress, uncertainty, sadness and grief.

And inside the head of every child who is emotionally unwell is a brain that cannot learn well.

Neuroscientific research, such as Stephes Porges' "Polyvagal Theory", (often visually interpreted as a traffic light diagram) confirms that we do not need to choose learning—real meaningful, authentic learning—over good mental health, nor should we. "Wellbeing leads to well doing" is not just a nice sounding slogan, it is a scientific fact.

#### Response Decision Making

How can you best help your child?



Child is totally irrational. Do not attempt to teach lesson, offer choices or rely on child to ask for help or calm down independently. Assume child can't think clearly enough to communicate and needs help to recover. Focus on offering regulation and meeting immediate needs.

Child is upset and beginning to struggle with reasoning and decision-making. Do not attempt to power-over child or fix their feelings. Assume child doesn't have the necessary skills to ask for help and process emotion. Focus on setting limits and offering emotional support.

Child is regulated and thinking rationally. They are behaving in a cooperative way that demostrates flexible thinking, playfulness, and empathy. Assume they are feeling connected and receptive to learning. Focus on boosting connection, teaching necessary skills, and practicing through play to gain mastery.

Image credit: Parenting Works (sheenahill.com)

Many settings have introduced—or are in the process of introducing—practice and policies that align with a growing body of evidence involving trauma, Adverse Childhood Experiences (ACEs), neurodiversity and attachment.



Imagine if this knowledge was in the possession of every teacher, every school leader... Could we use this knowledge to underpin the policies, ethos and culture of every school?

#### Biochemistry of Stress

Whether brains are immersed in learning, firing and wiring with optimum synaptic connectivity, or responding to the call of the "inner panic-alarm", biochemicals play a huge part in maximising a brain's efficiency. These biochemicals, or "neurotransmitters", are generated according to how we interpret our world in that moment.

When an experience involves an element of stress, it generates neurotransmitters such as adrenaline and cortisol. Although these are acidic, neither are harmful when used as nature intended—that is, by the body in response to short-term stressors, or as part of the natural patterns and biological rhythms of the day. Nature did not, however, intend for that acid to linger in the system, and when it does, it can cause havoc. Even at low levels, excess acid starts to slow synaptic connectivity and in the short term, cause problems with memory, focus, attention and learning.

A child's brain experiencing chronic or enduring stress may essentially be sitting in a bath of acid. The intensity of this stress can significantly impair the brain's ability to function well. Eventually, continual toxic stress will compromise immunity, which then has ramifications for school attendance.

Excessive cortisol can literally burn pockets of brain tissue which then require a process of healing before becoming fully functional again.

The image below—published by the Global Union of Scientists for Peace to promote "Brain Based Approaches to Peace"—demonstrates the impact of acute stress and the resultant "functional" holes seen in the pre-frontal cortex and the "Executive Brain".<sup>7</sup>



Advanced brain imaging technology (SPECT) shows the impact of traumatic and acute stress on the brain.

The "functional holes" seen in the prefrontal cortex (upper right) represent areas of severe brain dysfunction.

Image credit: Global Union of Scientists for Peace (gusp.org/defusing-world-crises/stress-impairs-brain-functioning/)

And yet, school is often a source of stress for many children, for numerous reasons, especially as we—and they—try to overcome the obstacles of post-Covid life. Thankfully many schools are intentionally working against the "catch up" agenda, but others have felt the pressure to shorten breaktimes and extend school hours; many led by concerns from parents—and even children themselves—who have been worried by the media's "lost generation" rhetoric.

We know that nobody—child or adult—is at their best when they feel "behind", or that they are under-achieving or failing. We also know that if school becomes the place where they feel those things, it has the potential to rupture their relationship with learning. All of our young people, and especially our most vulnerable, like those growing up in troubled families with distressing and difficult home lives, need to be protected from the toxic impacts of emotional distress.



Imagine if school was the place that sluiced out the toxic stress of vulnerability, or the stress left in the wake of Covid? How do we create environments that nurture and nourish, that help to heal those children when they are hurting?

## Solutions The Neurobiology of Emotionally Healthy Brains

So how do we make brains feel better and do better? One way is: we get the dopamine flowing. A healthy dose of dopamine is gold dust for the brain, for no other reason than it is our feel-good hormone. It stimulates, among other things, engagement, motivation and joy. But dopamine also optimises a healthy brain, and so, if it is good for brain health, it is good for learning, and it is good for wellbeing.

Dopamine neutralises the acid in adrenaline and cortisol that immobilises neural connectivity. You know how you feel better if you take a walk when you are stressed? That's why. You give yourself a dose of dopamine, stressor hormones are flushed out and your "learning brain" can come back online. Dopamine strengthens neural connectivity too. In 2018, the Medical University of Vienna outlined their findings<sup>8</sup> that dopamine is related to "reward processes, tackling demanding problems in a targeted and motivated way, expressing itself in the form of curiosity and willingness to learn".



Our results indicate a close correlation between dopamine, exhilaration and creativity. Our results provide the neural mechanisms explaining why the Aha! experience is more salient, facilitates long-term memory storage and reinforcement. An Aha!moment is therefore more than just a simple feeling of joy or relief but is a special form of fast retrieval, combination, and encoding process.



7. "Known as the Executive Brain, the frontal lobe is responsible for high-order functioning, governing judgment and ethical behaviour, and enabling individuals to set goals, plan, monitor and assess outcomes ... imagination, empathy and judgment", Dr. Kevin Fleming, The Executive Brain: A Postmodern Approach published online at: <u>https://www.all-about-psychology.com/the-executive-brain.html</u>

8. https://medicalxpress.com/news/2018-04-dopamine-producing-areas-brain-creativity.html

## Generating Dopamine

So how do we generate more dopamine? Well, it is easy: when we move our bodies, when there is time for pro-social connection and laughter, space for creativity and play, a surge of dopamine runs through our brains and bodies. It turns out that so many of the activities that are ever diminishing in children's lives are the very activities that get their brains cells connecting!

Creating environments which pump dopamine through the system do not need to be reserved only for playtimes, breaks and golden time. Why should they be, when they speed up neural connectivity and unlock children's amazing capacity for learning?



Imagine if we started every day with a dopamine boost, if we used that to flush out the toxicity of stress and stimulate young brains, ready for the day and ready to learn?



## Generating Serotonin

Serotonin is another brain-balancing hormone great for neutralising an acidic brain. More often than not, many of us charge through life at hectic speeds, tackling impossible "to do" lists and demands on our time which drain our inner-resources, leaving us far too close to the fight or flight state than is healthy.

We barely have the time to catch our breath.

But what happens if we make space in our lives and the classroom, to simply slow down?

For everyone to stop, and just be... still, be silent, to take notice, to be in the moment?

When we just connect with or ground ourselves, or intentionally take a few meditative breaths, the serotonin flows. These activities—which can often be a game-changer in just three or five minutes—deserve so much more than to only be reserved for wellbeing days, special occasions or the occasional visit from a yoga teacher.



Imagine the difference it could make to our days if they started with serotonin?

Can we afford just a few moments together to notice the silence or the sounds, a bit more often? What might happen if we all took two minutes to land in the moment, breathe deeply, and notice the colours a bit more often?





# Activity! How can creativity help?



## Generating Dopamine:

Drama activities and games are some of the most dopamine generating (and therefore brain-building) exercises out there.

When bodies are in motion, powered by imagination and unique ideas, all the sensory areas of the brain come to life, simultaneously. A flicker of good-natured competitiveness that comes with games; name games, team games, whole group games; create eye contact, laughter and motivation which illuminate that mighty social brain.

Don't wait for the tiny windows of time to bring these activities into your learning spaces!

Begin and end the day with movement, novelty and excitation. Create an imaginary space or a different place. Re-arrange the furniture, put an invisible box in the middle of the room, or give everyone a new name for the day.

Or reset stressed-out brains with a dose of anticipation or a burst of the unexpected. Stop for an impromptu Conga, a classroom song or a treasure hunt outdoors.

Whatever you choose, (or even better, your children choose!) a regular 5 minutes of fun to weave such activities into the day is not time wasted! That's how fuzzy brains become fizzy brains that are ready for learning!



Together, take a few moments to slow down, attend to your breathing and just observe the stillness. ... We can sometimes feel the vibe change, instantly. You're not imagining it... As serotonin begins to flow, nervous systems settle and the electromagnetic energy field that exists between everyone starts to

Take your class on a guided imaginative journey... Help everyone slow down and tune in, setting a scene that feels safe and an experience fit for the moment... Might a trip to the seaside lift everyone's spirits? Listen to the

seagulls, smell the candy floss... Would a woodland walk restore calm? Look up! How tall are the trees? Notice the knobbly bark, the pine cones on the ground... Will a space adventure spark curiosity? Is it biting cold or scorching hot out there? Take ten steps... What does weightlessness feel like?

Get out the paper, the paints, the colours. Play some relaxing music. Set a timer... not to count it down, but to protect the time for your children to immerse themselves in the moment... To go slowly, to transfer their imaginations, to observe their visualisation as it materialises...







# Generating Oxytocin:

Humans have been making music together for millennia because it brings the collective together, which is how humans function at their best. Use music to create a community, to invite a contribution from each child...

We don't need to wait for assembly or 'music', or to 'be good' at it to sing a song!

Reduce self-consciousness, or just have fun by changing some of the words or singing as fast as you can.

Or create a circle and compose a soundtrack within minutes.

Set the beat with a clap. As this continues, invite the next child to add their own repeating sound, using their bodies, voice, objects or instruments. Keep those sounds going, bringing in each child one by one, until they're all participating and performing to one continuous tune.

Or invent a soundscape. Using the same method to layer the noises, create different environments, even weather conditions. Collectively and

wordlessly, can you all re-create a storm at sea, the creaking and rattling as you wander round a really old house or the crackling of a forest fire? Essentially, this is about integration, so ensure that you notice each child's contribution, holding the space for those more vulnerable children... because our most primitive human need is to feel accepted and to simply belong.





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# 5. The Power of Powerlessness: The Impact of Adversity and Stress

The developmental nature of childhood is to progressively become more independent and autonomous—to make more decisions, not less—to become more responsible and more powerful, not less. So, while the Covid safety measures may have been necessary, they have also inadvertently gone completely against the grain of healthy childhood development.

"Powerlessness" is not an expression that has been used extensively in the aftermath of Covid, but the pandemic has presented all of us with powerlessness on an unimaginable scale. When we are subject to the unexpected, especially when it is unwelcome, worrying and frightening. When we are subject to the unexpected, especially when it is unwelcome, worrying and frightening; when making reality stop, go away, or even slowdown is not an option, we feel helpless and powerless.

We may not think of a child's (or our own) experiences during and after the pandemic as "traumatic", and of course, not all children have been traumatised by Covid. On the contrary, many have weathered the storm with startling adaptability and resilience. However, a trauma response occurs in the brain much more readily than many of us realise, and it is always a reaction to powerlessness in some shape or form.

While our logical minds may rationalise that "everything is ok now" or "we just have to get on with it", these beliefs are the work of a mature, "thinking brain". Those children who are coping or even thriving; who are "getting on with it" or feel that "everything is ok now"; are firing from that 'thinking brain'.

#### But many are not.

To what extent can any child really be expected to understand the rationale behind the closures of schools, parks, shops and borders? Is it fair to expect them to feel safe in the world which, for a significant portion of their young lives, has taught them it's a dangerous place to live?

In his work on trauma<sup>9</sup> Bessel van der Kolk refers to the fear and terror associated with the sense of helplessness. We must always remember that brains do not think safe, they feel safe. And they must feel safe before they can think rationally. Only when they feel safe, can thinking and learning—problem-solving, logic and decision-making—happen.

<sup>9.</sup> The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma (2014) Bessel van der Kolk

## Vulnerability on Top of Vulnerability

A great many young people were particularly vulnerable before the arrival of Covid. How many do not have the experience to make sense of what has been happening in the world— in their worlds?

Where are those children still being raised in troubled or traumatised families, those living with domestic discord, bereavement, job losses, money worries, or just day-to-day struggles for parents to meet the needs of their children?

They are everywhere, and we can only imagine how the brains of those who already lacked support and nurture, security and reassurance have processed their experience.

In reality, they may be safe in school, but their traumatised, distressed or anxious brains cannot feel that way. They can instead be "trapped" by their brain's most basic instinct—to stay alive.

On the outside, they may be defensive, distracted, disruptive, needy or withdrawn. They are probably under-achieving or not "on-task". Yet, on the inside, they are helpless, incapacitated by an aroused "fight, flight, freeze" response which perceives threat and alarm everywhere. Their brains respond to that perception, not to reality. Thinking capacity is immobilised, or at best, it is clouded.

Through our mature, adult state, we may see the struggling child as one who is overreacting or out of control, rather than the distressed child that they are.

We see our reality, not theirs...

But whether we, as adults, agree that this response is proportionate or valid is irrelevant. Efficiency wins out over accuracy, just as Mother Nature intended. Survival needs are prioritised over learning needs, every time.



## The Antidote to Powerlessness

## Strength-Based Approaches

While nobody disputes that support is needed, even the term "catch-up" is loaded with deficit. This kind of language can add more pressure to children: the anxiety and fear of being left behind.

While "behind" in some shape or form may be a reality for many learners, failure can be crushing, and the potential for shame in deficit-based approaches is huge. Shame generates the most toxic biochemical composition in the body, a biological reaction that literally prevents the brain from learning.

Pride, on the other hand, generates the healthiest biochemical cocktail possible. Certificates and rewards may have their place, but where is the opportunity for every child to feel proud of themselves, everyday?

Instead of being disempowered and demoralised by the subliminal "not good enough" label that can come with "being behind", imagine what might happen if we all took a strengthsbased approach? How can we motivate or help children to strengthen their strengths? Because "managing weakness" starts there. Like Henry Ford said: "Whether you think you can, or you think you can't, you're right."<sup>10</sup>

Those who feel capable of growth and change are capable of growth and change.

We must never lose sight of the fact that children are born with an innate love of learning they could not develop without it.

Imagine!

Imagine how much better they could face failure if they start with a strong sense of self. If, from the very core of their being, they proudly believe they are a competent, capable human being?

<sup>10.</sup> Emphasis added.

## self-Expression, sense of self and sense of "Personal Power"

Within schools of thousands, year groups of hundreds and classes of thirty or more, are individual people, each with their own likes, dislikes, nuances and needs. Beyond the confines of a pre-determined curriculum, inflexible timetables and uniform clothing, where are the opportunities for self-expression, to cultivate individual identity?

Children—like any of us—thrive when they have a sense of personal power within them, rather than when we have power over them. Young people's voices need not be limited to special occasions, or the school council. How are we embracing the rights of every child to think independently and freely express their needs and individuality?

And while there will always be those children who struggle to conform and comply, we should keep in mind that none of us are born with the skills of self-awareness, or emotional regulation. Where is the space to develop a strong sense of self—knowing yourself, being self-aware and developing the self?

Traffic light systems and red cards may be effective in "managing" young people, but such sanctions are ultimately intended to gain or maintain control. Sadly, it is sometimes neither realistic, fair, nor even possible for a child's brain to "make good choices", so how can we expect them to learn better self-control by taking control away from them? Especially in a post-Covid world, where so many are still grappling with the loss of personal agency?

Children who have mastered the skills of knowing themselves, identifying their own needs, expressing themselves appropriately and exercising self-control do not need the threat of "going on red" or "in the sin-bin".

How do children learn the skills of self-expression? Through creativity.

How do they experience "choice and voice", or exercise agency in their learning? Through creativity.

How do they produce unique and individual pieces of work? Through creativity.



Imagine what a difference we could make if, deeply embedded into the daily experience of every child, were the opportunities to express themselves and their needs with agency, make meaningful decisions, and the expectation that their voices were valuable and valued?

# Activity! How can creativity help?

## Some practical activities you can try out in your school...

# Strengthening Strengths

Responsibilities can feel wonderful when they help children feel included and competent. We all thrive when we feel our contribution is valued, so how do we make that possible for every child?

Beyond their 'learning', identify together all the different tasks that children do - or could do - in the setting. Level of interest, skill or importance is irrelevant.

It's time to re-frame these seemingly insignificant tasks, because it's ownership; designating those responsibilities to a particular child; that can give them permission to bloom!

Now give each task a job title! Having fun with this transforms the most mundane of responsibilities into opportunities that children relish. Who is your Head of Crayons, Paper Distribution Specialist or Attendance Analyst? Which class doesn't need a Communications Officer, Chief of Chairs, Ventilation Co-ordinator or Electronics Engineer?!

Autonomy and a sense of agency do very powerful work here, so never exclude children from this activity. It is strengthening strengths that manages weakness, so pay close attention to how those vulnerable children; those who often feel like they're failing; rise to particular a challenge, and give them more of it. Find a way to embrace the unique gifts and strengths that each child brings.

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## Developing Self-Expression

The arts can provide a powerful way for young people to express themselves providing a space where there is no right or wrong and enabling personal expression.

What's your children's vision for their future? While they may not be able to create their own curriculum or timetable, there are countless opportunities for young voices to meaningfully imprint what it means to be in your school.

Could they have a role in determining the name of their classes, their school teams, their form names? The photographers, graphic designers, artists and writers of tomorrow are in your classrooms. How is that expressed in your school's identity; your colours, logo, website? Your motto, values and ethos?

Self-expression and decision-making need not require lengthy discourse and debate. Create a poll. Stick your multiple-choice answers up in different zones or corners of the room.

Within just a minute or two, and with no need for words, children can express a lot; their opinions and ideas, what they agree with, what changes would work for them, not against them...

There are plenty ways we can say "I'm listening". What do you need to ask?





# Enhancing A Sense of Pride

It's always good to hear "I'm proud of you" but "I'm proud of myself" is quite different. What's your children's proudest achievement; today, this week, this year, in their lives? Make sure it's alive in your spaces.

Does the work they're most proud of have a place to be seen; a classroom gallery, the head teacher's office, the school newsletter?

Why aren't certificates ever self-awarded?

Have regular award ceremonies for the self-certification "I am proud of myself for...", "I'm brilliant at...", "My great achievement is..."

End the day how you want the next day to begin...

Make a version of 'Appreciations' part of your daily ritual. Create a circle.

"I appreciate \*choose one other person\* for \*choose one thing\*...

I appreciate myself for \*choose one thing\*."

Don't focus on attainment... Bring effort, personal qualities, uniqueness and

Some children, especially those children who don't have a strong relationship with their own success, may feel resistance around this. You might too.

Model it anyway... "I appreciate myself for being here" is a fail-safe, if nothing else is forthcoming.





# 6. The Brain Behind the Behaviour

While it is still too easy to dismiss vulnerable children as reactive, dramatic or "badly behaved", there is a growing awareness of subjects such as Adverse Childhood Experiences (ACE)s and trauma, much of which is underpinned by our knowledge about how such experiences affect young brain development.

Led by a growing body of evidence which suggests that those old approaches simply do not work, we are increasingly recognising that all behaviour is a form of communication, and that there are more effective ways to facilitate "behaviour change" than traditional, punitive approaches.

So why don't they?

While nobody disputes that everybody benefits—children included—from good personal conduct; a fundamental flaw of "behaviour management" strategies is, that they are largely built on the premise that young people have conscious and autonomous control of their behaviours at all times.

While some children undoubtedly upset others or hurt people, the vast majority of them do not actively make this decision. Self-management, impulse-control and the ability to make appropriate choices in the moment are not skills within reach of a dysregulated brain, and the outcome is almost always determined by the environment which makes those demands. Consequently, stressor hormones are much more likely to increase, magnifying rather than minimising, the likelihood of a fight-flight response.



Imagine if, beyond the "problem behaviour" that we can see, we supported the unseen impairments within the brain. As sure as we'd provide a ramp for a wheelchair-user, how can we ensure inclusion for those children who are simply at the mercy of a misfiring brain?

## Why Belonging, Connection and Emotional Safety Come First

The tide is beginning to turn. Increasing numbers of schools are now introducing restorative and relationship-based models of practice, such as Nottinghamshire County Council's "Understanding Behaviour in Schools Toolkit".<sup>11</sup>

While relationship-based approaches may be a stark contrast to more traditional measures of discipline, they are not about "rewarding" bad behaviour or opening the floodgates for classrooms full of unruly, over-indulged children. Through the lens of brain development, we can simply recognise "badly behaved" children as ill-equipped to express themselves appropriately, that they have needs that are not being met and skills that have not yet been mastered.

Meeting those needs and learning those skills is within our reach, but the green light of safety must be reached first. And so very often, it is the quality of connection and relationships that drive us there.

## Connections Count

Although lacking the survival tools of many other species, like sharp claws, big teeth, highly attuned senses, immense speed, strength or agility; humans are still arguably the most successful species on the planet.

#### Why?

At birth, a baby is equipped with—albeit a very blunt instrument—the "survival brain", to stay alive. The presence of an available human being is all that is needed, and that connection is the difference between "safe" and "unsafe".

From then until the end of life, this remains the case for every one of us. We are not meant to survive in isolation, much less thrive in it. The key to our success is down to one simple human characteristic, and that is our social capacity: the ability to function co-operatively and collectively, for the safety and wellbeing of ourselves, and everyone else in our "tribe". Nature designed us to function as our most productive and fulfilling version of ourselves, together.

Whether through our understanding of how the social brain develops from infancy, in direct response to the interactions with their care-givers, or through theoretic approaches such as, Attachment Theory<sup>12</sup>—first coined by John Bowlby and Mary Ainsworth in the 1960s but progressively being more fully understood through the lens of neuroscience—one thing of which we can absolutely be sure is that relationships matter.

The quality of adult-child relationships is critical in how the child will develop, not just in childhood, but potentially for life.

<sup>11.</sup> Wellbeing for Education Return Nottingham | The East Midlands Education Support Service (em-edsupport.org.uk)

<sup>12.</sup> Bowlby & Ainsworth: What Is Attachment Theory? (verywellmind.com)

## The Impact of Social Isolation

The effect of isolation on the brain is becoming better understood, with various researchers concluding that the "Isolated Brain"<sup>13</sup> struggles to such an extent, that its growth and functioning can be impaired.

Thus the potential for harm caused by enforced and prolonged social starvation has raised numerous questions about how humans connect with and treat one another.

Young people's relationship with their learning starts with the quality of the relationship with the other people in the environment—who they learn with and from—and we must consider the role that those connections play in classroom life.



Imagine being the child who only ever feels ike they "belong" when they are in school? Some do.

Many children have a stronger sense of acceptance in school than anywhere else in their lives, and yet schools are also the places where a multitude of relationships have been suspended and severed. But repairing these ruptures is not difficult.

Is there not a more profound human experience than, "You are important to me, and I care about you?"

How does it feel to be greeted with warmth every morning—the simplicity of a smile, soft eyes, and a kind voice?



Imagine what a difference we make to some children, and how easily we can relieve the stress that the beginning of the day can bring. How can we help children to know they belong, or ensure that every moment in school feels connected, accepting and secure?

<sup>13.</sup> http://www.brainfacts.org/search?q=isolation

## The Social Brain

Pro-social relationships are key to the healthy development of all human beings. In fact, 40% of our neo-cortex—the frontal lobes, AKA the "thinking brain"—is dedicated to social and emotional processing. This means that nearly half of the learning brain is stimulated, simply by providing an enriched social and emotional environment. The argument to give space for children to reconnect with friends, to enjoy free and outdoor play is not just a moral one.

And what about brain biochemistry as well?

When we intentionally and meaningfully connect with our learners, we give them a healthy dose of oxytocin. Although largely produced by physical touch and expressions of love, this acid-neutralising marvel is also generated through warm, accepting relationships, by a sense of community and interconnectedness.

## Working With, Not Against the Brain

It may be courageous, out of the box, defiant even, when set against the backdrop of "lost learning", but those schools which are stimulating young brains with fun and play; refilling the cup of missed human connection, and placing creativity at the heart of classroom practice, are fuelling children's brains with healthy hormones.

And while they are, those young brains are gradually being reprogrammed. New neural connections become established, imprinting the belief that school is a place of acceptance and belonging, where they are invited to develop and grow.

The green light says "safe", "survival brains" switch off, "thinking brains" switch on.



Imagine how we could strengthen young brains if person-centred relationships were the beating heart of school life? How can we ensure they are at the core of our policy, our practice, and the whole value system of our schools?

# Activity! How can creativity help?

## Some practical activities you can try out in your school...

## Child-Adult Relationships

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Children need to feel that they not only matter, but that; even if only for a short time; they are central to the attention, interest and care of a significant adult.

How do you bring that level of connection; be present and available; especially for those children who frequently need it so badly?

What do your children know how to do that the grown-ups don't? What do they understand better than you? Children so often have so much to tell us or teach us, and reversing the roles need not mean undermining your authority.

Implement a regular 'Teach the Teacher' session, enabling them to take on a role of guide or facilitator.

Give your children a genuine sense of agency and the experience, and expectation of really being heard. Create an anonymous post box in the classroom to pass on complements or even file a complaint (because we are listening).

Have some fun with children deciding a rule for the grown-ups for the day. Yes, this needs to be facilitated carefully, but show them you trust

It's ok to be a little vulnerable; you're human too, and connection with them. another really 'human' human can be deeply profound.





## Building Friendship Skills

Friendship groups will always form and children will always gravitate to the same peers, but there are so many ways of mixing this up without purposefully dividing children. A quick burst of 'keepy-uppy'; keeping the balloon or ball moving and in the air for as long as possible; can bring your group together as one. There are no teams, no winners, just one group goal.

Have your young people organise themselves according to arbitrary facts; a line from the oldest to the youngest, their birth months. Can they arrange themselves without talking to each other; in height order, from the shortest-tolongest hair, the smallest-to-largest shoes? What can they implicitly learn about one another just by observing and connecting in silence?

If pair work is needed, the simplicity of a stick; a short length of bamboo cane will do; can be transformational. Both children use a forefinger to suspend it in the air. From here, they work in unison, taking it in turns to lead; moving around, while their partner follows, both ensuring that the stick doesn't fall. Can they go for a walk, explore height, the floor, speed up? How attuned can they get; can they switch leader without words as they silently improvise a kind of shared dance?







## Group Cohesion

Movement and dance activities are great for this. Get them in pairs; A child in front who closes their eyes while the child behind gently places her hands on his shoulders. Can they put faith in their partner to guide them around the space and navigate any obstacles, relying only on tapping to communicate when to start and stop, when to go left or right? Work on mastering this trust... and extend the activity by increasing the group size.

Go beyond the handprint and murals that typically represents a class. Can your children create their own group identity, constructed of what each of them brings to the whole? Create a photo project. Assemble an image of a single person by integrating a piece of each child in your group. Who is this person? Give them a name and an identity of their own. What do we want to celebrate about them? Start by writing one sentence about them, then fold the paper over, and pass it on to a child... Carry on until you've accumulated a poetic masterpiece.



# 7. Tolerating Change and Uncertainty: Why Resilience Matters

A typical childhood is mapped out shortly after birth. From age four onwards, their education manages a huge amount of their young lives: timetables determine their minutes and hours, terms determine their weeks and months.

It makes for a predictable life.

So, of the changes they have faced, it is perhaps living in an unpredictable world that has been more unsettling than anything else—ever-moving goal posts and endless, unanswered questions.

Although the Character and Resilience Manifesto<sup>14</sup> of 2014 acknowledges the role of resilience in schools, the characteristics detailed within, such as, "grit and determination" align more with "academic resilience"—the ability to achieve in school despite adversity—than they do with a broader mindset of adaptability, responding to challenges as they arise and tolerating ambiguity.

"Achieving" is not the primary concern for those children who find just getting through the school gate a daily source of fear or worry. A shortage of "grit" is not the problem. The problem is that their anxiety, their fear of separation, and the mistrust in their own ability to adapt (again) is well founded. Why should the belief that they are now safe in the world come easily? While plenty have, why would they all just blend seamlessly back into school and classroom life?

None of us were anticipating a pandemic, but it is those children who went into the subsequent lockdown feeling like confident and courageous human beings—assured of their individual strengths—who are largely the ones coming out that way.



Imagine how many more might be emerging courageously if they had all gone into it armed with a well-equipped "resilience toolbelt"? How can we nurture bouncebackability, promote adaptability, and cultivate the ability to thrive—not just survive—in uncertainty?

<sup>14.</sup> A pdf of the manifesto can be found at: Social Mobility educationengland.org.uk

# Conclusion

## Redefining Resilience

We cannot predict the future, but the pandemic of 2020 has changed what it means to be a "resilient child". We can now see that our young people must be prepared for the unpredictable. It is not simply what they know that will prepare them for life, but their ability to navigate the unforeseen.

The future-ready child will be able to dance effortlessly over the shifting sands of life; to carve pathways through unknown territory, sudden change and unexpected obstacles.

If we can incorporate in our schools what neuroscience is teaching us about the brain, we can empower entire generations of human beings not only to explore, question and create; but to empathise, nurture and value themselves and others and our place in this world. A society of emotionally developed and healthy minds that can navigate the world with self-awareness and regulation; to be in control of their emotions, rather than being controlled by them.

What might we achieve then?

## The Future of the Creative Child

Creative opportunities are not simply a matter of entitlement limited to self-expression or just fun. With automation ever increasing, it is the creative minds—those that will never be replaced—that we will need to preserve, protect and grow. Creativity is one of the "the four Cs"<sup>15</sup> which, it is speculated, will be needed by the 21st century workforce, alongside critical thinking, communication, and collaboration.

Building creative brains is not a task for some point in the future. What we are learning from neuroscientists such as David Eagleman<sup>16</sup> and Anna Abraham<sup>17</sup> should be informing practice and policy in classrooms across the world.

Their insights are teaching us how the creative brain makes rapid neural connections, how those connections migrate across the sensory, social and emotional areas of the brain, between the left and right hemispheres.

While in themselves, arts subjects may not solve the world's problems, creativity must be at the heart of children's learning, right now.

Now more than ever, creativity must be a way of being, a way of life.

The artistic child creates the tangible from a vision in their head. The questions that nobody has yet thought of emerge from a curious child.

Inside an out-of-the box mind are the solutions that nobody else has thought of.

The imaginative child is the thinker of original thoughts and ideas.

Creativity is not merely the stuff of special events, golden time or rewards for good work. It deserves to do so much more than fill the last minutes of the day or the last day of term. It cannot just be the gift of a single forward-thinking teacher.

Not only is neuroscience teaching us that brains that are well, *learn* well, but that creativity is the glue which binds both together.



Just imagine if we used what we know to wake and stimulate young brains, to make use of the 86 billion brilliant brain cells that are ready and waiting inside each young mind?

Everything had to be imagined before it became a reality.

Just imagine...



15. What Are the 4 Cs of 21st Century Skills? (aeseducation.com)

- 16. <u>The Creative Brain David Eagleman</u>
- 17. The Neuroscience of Creativity (anna-abraham.com)

# Reading List



The Creative Brain - What Is It?

- Iconoclast; Gregory Berns
- Second Nature: How Parents Can Use Neuroscience to Help Kids Develop Empathy, Creativity, and Self-Control; Erin Clabough (for parents but interesting reference to creativity)

#### What is the Relationship Between Learning and Wellbeing?

- The Whole Brain Child; Dr. Daniel J Siegel and Ph.D. Tina Payne Bryson
- Building Academic Success on Social and Emotional Learning: What Does the Research Say?; Joseph E. Zins, Roger Weissberg, Margaret C. Wang
- Developing the Emotionally Literate School; Katherine Weare

#### The Learning-Ready Brain;

- Livewired: The Inside Story of the Ever-Changing Brain; David Eagleman (could also be a reference for the Creative Brain)
- The Synaptic Self; How Brains Become Who We Are; Joseph Ledoux
- Enriching the Brain: How to Maximize Every Learner's Potential; Eric Jensen

#### Unhealthy Brains: Why Wellbeing Matters

- Why Love Matters; Sue Gerhardt
- Know Me To Teach Me; Louise Bomber

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The Power of Powerlessness: The Impact of Adversity and Stress;

- Bessel Van Der Kolk; The Body Keeps The Score
- Toxic Childhood Stress: The Legacy of Early Trauma and How to Heal; Nadine Burke-Harris
- Eyes Are Never Quiet; Lori Desautels and Michael McKnight
- Trauma Through a Child's Eyes; Peter A. Levine Ph.d. and Maggie Kline

#### The Brain Behind the Behaviour

- Beyond Behaviours; Mona Delahooke
- Building the Bonds of Attachment; Dan Hughes
- The Explosive Child; Ross W. Greene

#### Tolerating Change and Uncertainty: Why Resilience Matters

- The Optimistic Child: A Revolutionary Approach to Raising Resilient Children; Martin Seligman
- The Yes Brain Child: Help Your Child be More Resilient, Independent and Creative; Dr. Daniel J Siegel and Ph.D. Tina Payne Bryson





# want to know more?

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