



Developing the right mindset for learning: Teaching self-regulation, focus and calm in the classroom

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Introduction

This paper presents teachers' self-reported findings about the effects of mindfulness and meditation on student behaviour in three primary schools situated in areas with multiple deprivation indicators. Schools first participated in a programme to teach staff (and students) about how brains learn via four workshops, and chose to apply aspects of educational neuroscience to their teaching practice. In all three schools, senior management and teaching staff elected to adopt the practice of meditation for two reasons: to help students learn to self-regulate their emotions and place themselves in an emotional state conducive to learning; and to strengthen their ability to focus/resist distractions.

Teachers reported the impact to be better than expected, as not only did the meditation practices improve emotion regulation and focus, but they also had two further benefits: a reduction in transition time between break-times and lessons, and a general change to the whole-school culture for learning. This paper explores these effects, using interview data from 10 teachers and leaders and a student focus group.

› Background

As findings from neuroscience, psychology and education are more readily shared, it becomes increasingly obvious that learning sits within an emotional plane: neurobiological evidence shows 'that learning, attention, decision making and social functioning are all both profoundly affected by and subsumed within emotional processes' (Immordino-Yang and Damasio, 2007, p. 3). Pre-adolescence is a key period, during which the neural networks underpinning the complex methods of self-regulation are developed. Self-regulation requires two key processes: attention control, which includes the ability to resolve conflict, to resist distraction and to focus attention; and emotion regulation, the modification of how emotions are both expressed and experienced (Kaunhoven and Dorjee, 2017). However, students can find the school environment and its complex social structure stressful and distracting – brain states that make learning more difficult.

Fear and attention

The limbic system, or 'emotional centre', sits deep within the midbrain. It contains the amygdala, which has evolved to be extremely efficient at preparing the body for fight or flight; it receives all types of stimuli (e.g. visual, auditory) directly from the senses and reacts *before* the signal is relayed to the conscious, decision-making cortex for analysis. This explains why we can react to potential danger before we are even aware of it – for example, by flinching. This swift response interrupts existing brain processes

Teachers found that using meditative images or sounds as cues for learning helped students to settle into the lesson more quickly

not required for survival, such as learning phonics, in order to prepare the body to react to a potentially dangerous situation. The fear response also helps us to avoid similarly dangerous situations in the future, as the amygdala is also involved in the creation of long-term memories related to sad or fearful events, hence emotional episodes are more vividly remembered than neutral ones (Blakemore and Frith, 2000).

Thus, the state of fear has a negative effect on learning at school, a place that focuses on the development of brain processes that are not essential for physical survival. Brain researchers agree that 'negative emotions block learning' (OECD, 2002, p. 66). When learning environments are stressful, the amygdala becomes overstimulated and enters a hypermetabolic state in which 'information cannot pass from sensory awareness into the memory connection and storage regions of the brains' (Willis, 2006, p. 58). Cortical activity is also affected by physiological responses triggered by the limbic system, such as increased heart rate and elevated adrenaline levels. Research using fMRI scans has demonstrated what many good teachers (and most students!) will know already: that 'superior learning takes place when stress is lowered' (Willis, 2006, p. 59).

When teachers are able to understand the relationship between emotional state and learning, there is a significant (positive) academic effect. Indeed,

'setting the emotional climate for learning may be the most important task a teacher embarks on each day' (Hardiman, 2012, p. 34). Meditation practices have been shown to have 'a pivotal impact on developmental outcomes including social and emotional wellbeing and academic functioning' (Kaunhoven and Dorjee, 2017, p. 164). Meditation can 'help students to enhance academic and psychosocial strengths and improve self-regulation capacities and coping abilities' (Wisner et al., 2010). There is a wealth of meditation programmes available and written for schools, such as the *.b mindfulness programme*. All three UK evaluations of this intervention show that it has a significant positive impact on student resilience and stress (Clarke et al., 2015) – findings that are reflected in two other reviews of international studies of mindfulness at school (Burke, 2010; Harnett and Dawe, 2012).

Method

Ten staff (head and assistant headteachers, classroom and learning support teachers) from three schools were interviewed individually, three to four terms after first participating in the educational neuroscience programme. This covered, for example, brain plasticity, memory, and the role of emotions and the limbic system in learning. The schools had been using meditation practices for between two and three terms.



The interviews used open-ended questions and were video-recorded, with transcripts typed up later. A focus group of 11 Year 6s from one primary school was interviewed and responses typed during the interview. The data was

then thematically analysed. This involved categorising responses according to the themes that emerged from the data – for example, some responses related to the emergent theme ‘emotional regulation’.

Analysis

The predominant theme that emerged from the data was the belief that meditation had had a profoundly beneficial effect on student behaviour. The meditation practices took many forms and were chosen by teachers according to an informal action-research approach, including: listening to guided aural meditations; following on-screen yoga-based movements; listening to calming music; mindful yoga and colouring; and breathing exercises, visualisation and massage. Responses formed four themes described below, with examples summarised in **Table 1**.

1. Emotional regulation

When describing the catchment area, all schools identified deprivation problems such as parental unemployment, gang warfare, alcohol-related violence, poor language and lack of parental support. Consequently, students often arrived in a state of stress, lacking equipment, and anxiety sometimes increased as home-time neared. Following meditation, teachers reported that children, including those with behavioural problems, were able to settle down to work more rapidly and appeared calmer and more resilient. Students also said that meditation helped to reduce their stress.

2. Focus

Following meditation, teachers reported that students were better able to focus and readier to learn. It was described as an effective form of classroom management, and calming music and images were frequently used as cues for learning. Learning to focus on a mindful

TABLE 1
EXAMPLES OF RESPONSES



Theme:	School:		
	A	B	C
1. Emotional regulation	<p>‘It’s important... being able to self-regulate... to have a mindful minute.’</p> <p>‘There is a lot less aggro – they are much calmer... it can’t be a coincidence.’</p>	<p>‘Year 6 are better able to manage stress, pressure and the emotions around the exam pressure... they’re choosing when and how to calm themselves.’</p> <p>‘This wildness... has gone.’</p>	<p>‘There’s less disruption, so all of the class are benefiting.’</p>
2. Focus	<p>‘The children are easily distracted... (meditation) has definitely helped.’</p>	<p>‘The staff are saying it makes a difference; children are a lot calmer.’</p>	<p>‘Kids get down to work quicker, they’re more relaxed – seem calmer.’</p>
3. Transitions	<p>‘Playground stress being brought into the classroom is a real problem. Meditation can help calm things down.’</p>	<p>‘School is a busy environment; children go from a calm classroom to a busy playground and back – mindfulness processes have really helped.’</p> <p>‘You can feel the classroom become a nice, calm, peaceful environment ready for the next activity.’</p>	<p>‘Meditation has really helped during transition.’</p> <p>‘Meditation is used religiously at transition times.’</p> <p>After listening to music in corridors: ‘Children enter the room more calmly, with more structure.’</p>
4. Whole-school culture for learning	<p>‘As staff, we’re learning it with the students. We’re all learning it together.’</p> <p>‘Children are telling their parents how to deal with anger and de-stress.’</p>	<p>‘Now, it’s part of what we do.’</p> <p>‘Some of the practices have impacted on the staff – daily teaching practices, and also for the leadership team.’</p> <p>‘I would absolutely like to see it embedded in whole-school culture. If it’s done all that in a month, then at the end of an academic year? Who knows.’</p>	<p>‘Staff and students seem calmer – the environment is calmer.’</p> <p>‘Even the governors think there’s a difference.’</p>



› task improved concentration, and taught students how to ‘re-centre’ – described by a headteacher as a life skill. Students concurred.

3. Transitions

Transitioning between busy break-times to calm classrooms is a challenge; however, teachers found that using meditative images or sounds as cues for learning helped students to settle into the lesson more quickly. One school was so pleased with the effect of music that they played relaxing piano music through the corridors, reporting that not only did students (and staff) arrive in classrooms in a calmer state but that lessons could also begin more promptly.

4. Whole-school culture for learning

All respondents stated their desire to continue using meditative practices in the future, as they believed it benefited the whole-school environment, to the extent that governors noticed. Teaching students to take time to calm busy/frenetic minds, to focus on a mindful task and to recognise when they needed to take a ‘mindful minute’ were skills that had altered the schools’ culture for learning for the better. Students themselves said that they enjoyed meditation, and a meditation club at one school was very popular.

Conclusion

The uptake of mindfulness and meditation practices was widespread and had an impact that was more beneficial than expected. As the meditation practices had been in use for two to three terms, it could be

concluded that the effects were due to engagement with the principles of meditation, rather than novelty effect. Of the four themes that emerged from the data, the first two (improvement in emotional regulation, a particularly pertinent life skill for children in deprived areas, and an increased ability to focus/resist distractions) were the reasons for the initial uptake of meditation. The third and fourth themes (improved transition between lessons and a positive effect on whole-school culture for learning) were not anticipated prior to uptake. Both staff and students in all three schools wished to continue to develop meditation practices in the future. As one teacher said, ‘the impact – it’s like a switch has been turned. It’s like a huge weight has been lifted. It really has, in that short time, made a huge difference.’ 



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