

THE LITTLE BOOK OF
Voice

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Voice Use -	a Paradigm Shift
Behaviour Management	Things to Think about
<p>Behaviour Management is one of the major concerns you probably have as trainee teacher.</p> <p>It is often mentioned at interview and can become a constant worry during training.</p> <p>Not being able to handle pupils' behaviour is frequently cited as the reason for leaving the teaching profession.</p> <p>This problem is not new.</p>	<p>Twenty years ago in the abstract for their article 'How Do Teachers Learn to Manage Classroom Management' Merrett, F. and Wheldhall K. (1993) state:<i>Many (Secondary teachers) thought that their colleagues spent too much time on matters of order and control and 38% thought that they, themselves, did also. Generally, they showed an interest in attending training courses in classroom behaviour management. Many felt that such training could reduce stress among teachers and might help to reduce troublesome behaviour among their pupils. Nearly all of them thought that it would be of benefit to their younger colleagues who were just beginning their careers.</i></p>
Unacceptable Behaviour	
What would be a working definition of bad behaviour?	<ul style="list-style-type: none"> • hostility or aggressiveness, • a lack of accountability or responsibility, • rudeness, disrespect or bullying toward others.
What do you perceive as a behaviour problem?	All of the above or failure to respond to your instructions.
What are pupils doing that causes you to give a reprimand or 'raise you voice'?	Apparent class indiscipline
What preconceived idea of behaviour do you have?	You may bring to the classroom your own lifetime experiences and expectations.

What triggers perceived bad behaviour behaviour ?	Consider whether the pupils are reacting to external or internal prompts rather than malign intent
Are teachers working on a deficit model of education, where the pupil fails to act up to a preconceived template of behaviour -is this what you believe?	Remember that each child is an individual and few will match a template of abstract perfection.
What is the usual response to 'bad' behaviour?	The standard response to perceived 'bad behaviour' in the classroom is for the teacher to take a firm stance and use a strong, firm voice. "Don't smile until Christmas" was frequently the given advice to a young teacher when beginning in the teaching profession.
<i>But what if this instruction is you should be doing?</i>	<i>the very opposite to what</i>
What are the factors that bring about 'behavioural' issues?	Is 'unacceptable' behaviour: <ul style="list-style-type: none"> • the pupils' fault which should be punished or • an outcome beyond their control? • a pupil's reaction to a problem or event?
Acceptable Behaviour	
Why are we only talking about 'unacceptable' behaviour? (as defined above)	We need to consider the root causes of all behaviour, acceptable and unacceptable

<p>For a start what do we classify as 'acceptable' behaviour?</p>	<p>As teachers we obviously want children to:</p> <ul style="list-style-type: none"> • listen, • to be enthused by the tasks, • and to show politeness to others in the class respond to questions in an enthusiastic manner
<p>Should we be recognizing that pupils' behaviour is often the outcome of an event not the problem?</p>	<p>All behaviour has multiple causes, so we need to consider not only the outcomes but the numerous underlying reasons that humans do what they do</p>
<p>What do we need to know?</p>	<p>We need to go back to the very basic consideration of the biological, neuronal prompts to action in the young child.</p>
<p>What are the numerous influences?</p>	<p>There are numerous influences on a young child including family, siblings, playmates and physical circumstances.</p> <p>These all interact with the inherent character of the child.</p>
<p>When do these influences begin?</p>	<p>From infancy onwards children learn by social interaction.</p> <p>They find out which behaviours are rewarded, and which are constrained, through emotional and physical experience, not by rational calculation.</p> <p>The small child is extremely vulnerable and human childhood is one of the longest in biology.</p> <p>The child's basic needs can only be satisfied by the actions of parents and other adults,</p>

	and equally the child is defenseless against threats.
How do these influences develop?	The child's mind is genetically programmed to respond to favorable signals and to run away from perceived threats.
Why does this happen?	<ol style="list-style-type: none"> 1. The child has a basic inherent biological programming to react in a given way to events. 2. Each child has their own character and personality 3. No child arrives at school as a blank slate, they have been shaped by their familial and other experiences.
What conclusions can we draw from this?	<p>Given the youth and physical stature of the child, there is natural defensiveness on entering a strange environment without parental support.</p> <p>Therefore, there will be heightened tension to perceived threats.</p> <p>The child becomes aware of the outside world primarily through sensory perception.</p>
What is the primary sense we should be aware of?	The primary one of importance in the classroom is auditory .
What has this got to do with how we use our voice?	How a voice sounds affects the way that pupils behave and more importantly how they process information.
The question of the processing of information should not be ignored.	Rogerson, J and Dodd, B. (2005) in their paper 'Is There an Effect of Dysphonic Teachers' Voices on Children's Processing of Spoken Language?' suggest that children

	<p>exposed to the inadequately produced voice have greater difficulties in processing the information that those teachers are trying to impart. A voice impairment including monotony of tone, hoarseness, poor voice control and volume can lead to poor classroom management and deterioration of pupil behaviour.</p>
<p>Therefore, the issue we need to consider is a teacher's use of voice. So how does the sound you make change reactions?</p>	<p>Essentially voices can either be intimidating or comforting.</p> <p>Recent research shows that a firm and intimidating response from a teacher will create the very converse effect to the one that they hope to achieve.</p>
<p>So here is the dilemma. How can we keep order in a classroom without resorting to strong warning and threat?</p>	<p>The pupils may become more compliant, manageable and submissive but their brains will have released a hormone that prevents them from becoming successful learners.</p>
<p>Voice as Aggression</p>	<p>We all respond to how we are spoken to and act accordingly.</p>
<p>What happens if you use a firm or extra firm tone to achieve quiet and order in the classroom?</p>	<p>There is an over-release of 'cortisol' that compromises the frontal lobes of the brain that, recent research shows, influence the perceptual learning processes.</p> <p>'Perceptual Learning' refers to long-lasting changes in perception that result from practice and/or experience.</p>
<p>What is 'cortisol'?</p>	<p>This brain hormone 'Cortisol' is the primary glucocorticoid (GCs) in humans...</p>

Why is knowing about 'cortisol' so important?	At the behavioural level, after treatment with GCs, numerous studies have reported <i>impaired hippocampal function</i> , such as impaired memory retrieval. (Dinse et al 2017)
You may find pupils more compliant when using a firm or 'shouty' voice but is it producing good learning?	Simple learning by rote is often forgotten in a very short space of time, which may be due to the 'impaired memory retrieval' as mentioned by Dinse et al. As mentioned above, the sound of the spoken word affects brain activity of children and young adults. (Paulmann et al, 2019). It is difficult for young people to articulate how they feel and often the 'bad behaviour' we hear about stems from how pupils are spoken to, particularly the very young.
The answer may be found in the use of vocal tone	
The writer Maya Angelou wrote: How do you feel about this statement?	<i>"I have learned that people will forget what you have said, people will forget what you did, but people will never forget how you made them feel."</i>

What are 'neurotransmitters' and why you need to know about them?	Neurotransmitters, our chemical messengers, are present in the way we react to the situations in which we find ourselves.
	We can't help it; our brain chemistry reacts to the sound we hear.

	<p>It is a primeordial response programmed into our brain since the beginning of human existence.</p> <p>The release of 'cortisol' gives us the capacity to run away from danger.</p> <p>The modern brain perceives the 'shouty' voice as a danger therefore goes into the 'fight, flight and fear' mode.</p>
	<p>We know this because research has revealed that it only takes a fifth of a second on hearing a threatening tone for the brain to produce cortisol.</p> <p>When we 'feel', a chemical change and a behavioural response is initiated. It is not the same in all students. It depends on previous experience, but it is true to say that everyone does respond to the processes that are originated by hormonal stimulus.</p> <p>Some students will become difficult to handle if their brains are filled with 'cortisol'; their 'fight' response becomes dominant. For others, their reaction is of 'fear and flight' and the prefrontal cortex, once flooded by 'cortisol' can cease to function.</p>
	<p>Arnsten and Goldman-Rakic (1998) suggest:...<i>neurochemical changes during stress can rapidly switch off prefrontal function. It showed that neurons in the prefrontal disconnect and stop firing after being exposed to a flood of neurotransmitters or stress hormones.</i></p>
	<p>Further, research by Arnsten et al puts forward the idea that constant exposure to 'cortisol' especially in young children can paralyse the frontal lobes. Teachers will be aware of very young children who appear to be unable to concentrate and are often hyper-active.</p>
	<p>This increase in 'cortisol', if too severe, will lead the prefrontal cortex to disengage and the brain can no longer deal with thoughts and memory, the prerequisites to learning.</p> <p>We know from our observations that a hard tone or 'shouty' voice will produce this response.</p>

	<p>The stress children experience will often lead them to behave in ways that are not appropriate for good learning.</p> <p>A rise in 'cortisol' levels, produced by a firm tone of voice, for example, will exacerbate problems for pupils who experience fragile mental health issues such as panic attacks, anxiety and depression.</p>
<p>Too great a use of firm or strong voice, especially a shouting voice, appears to be counterproductive.</p>	
<p>Voice as Comfort</p>	
<p>Is there another way?</p>	<p>In contrast, when a warmer tone is used the hormone 'Oxytocin' is produced.</p> <p>This hormone acts as a chemical messenger in the brain, controlling aspects of human behaviour such as confidence and relationships.</p> <p>It is an essential part of making strong emotional and social bonds with others.</p> <p>It primes the listener to be more receptive to what is being said, to be more trusting of the speaker, and more likely to be responsive to the information being conveyed.</p>
<p>The emotional element of learning should not be ignored. A physiological adjustment takes place every time we feel something.</p> <p>Can you remember, as small child, your own</p>	<p>A young child between 0-5 years old is very susceptible to voice tone as revealed by the work of Arnsten (2009).</p> <p>Her team suggest that 'the prefrontal cortex is so sensitive to stress because of its special status within the hierarchy of brain structures'.</p> <p>The prefrontal cortex they imply matures more slowly than any other part of the brain. It appears to reach full maturity at the end of the teenage years.</p>

<p>reactions to different teachers?</p> <p>Can you identify why?</p>	<p>Given the primary disposition to react to negative factors rather than positive there is a distinct need from the very start to promote a warm sense of trustworthiness.</p> <p>The initial response from the first day in the classroom can condition the child to a favourable mental, biological response to the teacher.</p> <p>In contrast, the triggering of ‘cortisol’ can be longer lasting and more damaging to learning; while ‘oxytocin’ has a shorter life-span in the brain, its favourable effects can start a child on a more positive learning experience</p>
<p>Solution</p>	
<p>Taking these elements into account we believe that you as a trainee teacher needs an instructive programme to adjust your voice appropriately to the task.</p> <p>How does ‘the5voices’ programme help improve teacher performance?</p>	<p>Relying upon long experience in the classroom and substantial responses from the teachers themselves we have devised a programme called ‘the5voices’.</p> <p>Those coming into the teaching profession need to be made aware that they are also ‘professional’ voice users and as such will require specific voice training to prepare them for the task ahead.</p> <p>To achieve this, the spoken voice needs to be engaging and hold people’s attention.</p> <p>It should create a receptive response from the listener (increased oxytocin release).</p>
<p>How does this help you?</p>	<p>An important supplemental benefit to this approach is the health consequences for the teachers themselves.</p> <p>With less voice strain and biddable behaviour in the classroom there is a concomitant dedication to the profession, as evidenced by much reduced staff turn-over rates.</p>

'The5Voices'	ETPC began the voice training module in 2007.
What are the5voices?	<p>At its core 'the5voices' is about identifying and learning to execute different tones of voice, which help create an effective teaching and learning environment in the classroom.</p> <p>There five main tone colours used in the classroom starting with Centred Neutral – the main tone</p>
What is Centred Neutral?	<p>Centred Neutral is produced from the note on which the voice is tuned; it is the most natural and least strained note for the speaker and is used for introductions, instructions explanations, and requests.</p> <p>It should be the most used tone for the classroom.</p>
What are the other tones?	The other four voices are clustered on either side of centred-neutral. Two are for stricter commands and should be used sparingly, others are warmer tones to encourage and comfort.
The 5 Voices therefore are called:	<p>Firm Voice Extra Firm Voice – cold tones</p> <p>Encouraging Advisory/Comforting – warm tones</p>
The Training Programme	
	<p>In the training, by using specific vocal techniques, you will be taught how to vary your voice to suit any teaching situation.</p> <p>You will be introduced to the basic techniques of postural alignment, breath support, resonance and articulation, as well as the more advanced vocal delivery skills: pace, pitch, rhythm, intonation and inflection.</p>

	<p>The result of which is having a voice that is not only more self-assured and interesting to listen to, but is healthy, strong and flexible.</p> <p>Voice training will also provide better communications skills which in turn builds confidence, resilience and strength - a voice that will support you throughout your teaching career.</p>
<p>Before you begin, decide whether any of the following features apply to you:</p>	<p>There are features such as:</p> <p>Poor posture leading to poor breath control. These include, weight being transferred onto one leg, crossing legs over one another to keep balance, crossed arms, body being slumped onto the hips, evidence of clavicular breathing (breath in the upper chest only) leading to poor support of sound.</p>
	<p>Use of incorrect pitch</p> <p>Every voice can produce notes on the pitch range from the highest through medium to lowest. The untrained female voice is often of over-pitched i.e. a voice produced on a note higher than the centred note for that voice.</p> <p>This constricts the ability to use the whole range of notes that the voice can produce.</p> <p>Together with poor breath control it can produce a voice that sounds thin and sometimes squeaky. Male voices can have similar features but also an under-pitching which effects the quality of the sound.</p> <p>All these factors are often linked to very little jaw movement which impedes the mobility of the lips, tongue, and soft palate thus hampering good articulation.</p>
<p>The 6hr course – 4 sessions</p>	<p>This approach is being led by the science that is now available.</p>

<p>What will I learn?</p>	<p>Much time in the early sessions is spent on *physical balance and alignment,</p> <p>*the importance of good breathing and finding the centre of the voice and natural speaking pitch.</p> <p>The restrictions of habitual use are explored and explained; good habits are taught and practised.</p>
	<p>By the end of the programme, we hope all trainees will know how to speak with a solid understanding of the centred-neutral voice, the main voice for teaching purposes, alongside, the four other tones that make up the toolbox of 'The5Voices'</p>
	<p>Throughout, the neurological effects of the voice on the pupils are re-enforced.</p> <p>What is the response of the listeners to the voice being produced?</p> <p>You need to be able to understand the effect of their voice on the pupils in front of them.</p>
<p>References</p>	
	<p>Noise Stress Impairs Prefrontal Cortical Cognitive Function in Monkeys Evidence for a Hyperdopaminergic Mechanism Amy F. T. Arnsten, PhD; Patricia S. Goldman-Rakic, PhD Author Affiliations Article Information <i>Arch Gen Psychiatry.</i> 1998;55(4):362-368. doi:10.1001/archpsyc.55.4.362</p> <p>Frank Merrett & Kevin Wheldall[1] (1993) How Do Teachers Learn to Manage Classroom Behaviour? A study of teachers' opinions about their initial training with special reference to classroom behaviour management,<i>Educational Studies</i>, 19:1, 91-106, DOI: 10.1080/0305569930190106</p>

The stress hormone cortisol blocks perceptual learning in humans

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[Psychoneuroendocrinology](#)

[Volume 77](#), March 2017, Pages 63-67

Listen to your mother: Motivating tones of voice predict adolescents' reactions to mothers.

Paulmann, S, Weinstein, W, Vansteenkiste, M.

Developmental Psychology 2019

'Stress Signaling Pathways that Impair Pre-frontal Cortex Structure and Function' Arnsten,A.F.T in Nature Reviews

Neuroscience, Vol 10:June 2009

(How the prefrontal cortex can disconnect from thoughts and actions)

'Treating a Toxin to Learning' in Scientific American, Special Collector's Edition,

Blair, Clancy, 'The Science of Stress' Volume 20, No.2 2021

(Stress and the release of cortisol and noradrenaline on brain function in small children)

Glaser J. E & Glaser R. D **'The Neurochemistry of Positive Conversations'** Harvard Business Review, Feb. 2014

(Effect of Cortisol and Oxytocin on the ability to function)

Rogerson, J and Dodd, B. (2005) **'Is There an Effect of Dysphonic Teachers' Voices on Children's Processing of Spoken Language'** In Journal of Voice, Vol.19, No.1 pp44-60

(Listening to a damaged or uncomfortable voice impedes learning.)