A Brain Systems Approach

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Mahatma Gandhi once commented that you must be the change you wish to see in the world. If you want to create a change you need to start with yourself.

Whether you are in counselling, teaching, industry, mentoring or a relationship, you are in the business of change.

Creating and maintaining positive change is the aim of this paper. Change can certainly happen rapidly. Starting with a pivotal shift, change can resonate throughout life.

Some key principles and assumptions about change

People seeking assistance experience conflicting forces for change and to stay the same. These forces for change and staying the same, can be balanced in ways that paralyse people. People’s values represent the keys to change.

Serious problems seriously need to be solved but don’t need to be solved seriously. A small change is all that is necessary. Change is constant and rapid change is possible.

Identify and amplify small changes. There is no one right way to view things—question absolutes. Develop fit with the person so that the person may entertain additional possibilities.

Effective change requires a new approach to each person you work with. Curiosity is essential.

Wherever you can, use humour—people are miserable enough already.

When I was young and free and my imagination had no limits, I dreamed of changing the world: as I grew older and wiser I discovered the world would not change, so I shortened my sights somewhat and decided to change my country, but it too seemed immovable. As I grew into my twilight years in one last desperate attempt I settled for changing only my family, those closest to me.

But alas they would have none of it! And now I realize as I lie on my deathbed, if I had only changed myself first, then by example I might have changed my family. From then, by example, I might have changed my friends. From their aspirations and encouragements I would have been able to better my country, and who knows, I might have even changed the world.
Understanding and treating Anxiety and Depression

Andrew Fuller

Anxiety is one of the most powerful inhibitors of learning in our schools. It prevents students from feeling confident, persisting and they often try to avoid having a go. What appears to be low motivation and disengagement is often anxiety.

It is essential that educators are able to look "behind" anxious behaviours and to consider what might be occurring in the brains of their students.

There are several different types of anxiety and depression

1. **Pure anxiety.**
   This is often related to the basal ganglia the part of the brain that integrates movement and feeling. When disruptions in the activation of this part of the brain occur we often see persistent fears or phobias, extreme conflict avoidance.

   In classrooms we may see excessive fears of being judged by others, heightened startled or freezing behaviour shyness, timid, easily embarrassed. They may also bites fingernails or pick at skins and feel frequent nausea and dizziness and have frequent school absences.

2. **Mood related anxiety with depression**
   This is often accompanied by lowered mood or depression.It is often associated with deregulation of the limbic system. In classrooms we may commonly see sadness, moodiness, negative thoughts, low motivation and social isolation

3. **Mixed anxiety and depression** in which we get fearfulness and negativity as well as lowered mood.

4. **Overfocused anxiety.**
   This is often associated with the functioning of the limbic system and anterior cingulate gyrus. In classrooms we commonly see worrying, holding grudges, getting stuck on thoughts, getting stuck on behaviours, addictive behaviours, perfectionism and oppositional/ argumentative acts. These young people often have senseless worrying, are incredibly upset when things don't go their way, are oppositional and argumentative and have repetitive negative thoughts. They may also have compulsive behaviours and dislike and react badly to change.

5. **Cyclic anxiety with or without depression.**
   Often associated with focal increased thalamic activity. In classrooms we may see cycles of mood changes, decreased or increased sleep or energy, grandiose notions, increased talking or pressured speech, racing thoughts, poor judgment, inappropriate social behaviours and Irritability or aggression.

6. **Temporal lobe anxiety.** The temporal lobes are involved in literacy, language usage, memory mood stability, listening and reading, interpreting social cues, rhythm, music and spiritual experiences. In classrooms we may notice Emotional instability, memory problems, feelings of panic, aggression, frequent headaches and learning problems. Some students may be spacey while others may have a short fuse.

7. **Low activity anxiety.** This is often associated with generalised lower levels of brain activity and may be seen in students with chronic fatigue syndromes, ADD, depression with slowed thoughts, and toxic exposure. Some children who have had oxygen deprivation at birth (anoxia) may also exhibit this pattern. In a classroom we may note troubles in focus, fogginess, being overwhelmed by tasks of daily living feeling tired or sluggish, procrastination, failure to finish things or chronic boredom.
A guide to the brain systems related to anxiety.
Please rate the person based on your own observations and give them a score
(3= very often, 2= sometimes, 1= infrequently, 0= rarely or never)

1. Shows signs of nervousness (nail biting, stomach complaints)
2. Is restless, agitated and easily startled
3. Is fearful of being judged by others
4. Avoidant of conflict
5. Predicts the worst outcomes

6. Low motivation
7. Inattentive to detail
8. Loses track of belongings
9. Easily distracted
10. Poorly organised

11. Sad and moody
12. Socially isolated
13. Expresses negative thoughts and seems overwhelmed,
14. Gets stuck on a thought and can't change track easily
15. Tends to say no without thinking

16. Learning difficulties
17. Short fuse
18. Misinterprets social cues and the intentions of others.
19. Is spacey and foggy
20. Panics without reason.

21. Argues over every little thing
22. Perfectionistic and worrying
23. Holds grudges and can't change ideas
24. Chronically difficult
25. Can't listen to others.

1-5 - consider basal ganglia overactivity
6-10 - consider basal ganglia under-activity
11-15 - consider limbic system overactivity
16-20 consider temporal lobe system underactivity
21-25 consider anterior cingulate activity
Ten Ways to Improve student behaviour & engagement

Imagine you are an AFL umpire in a grand final. The scores are close, it is the final quarter and the players will do anything to create an advantage. Do you think giving meaningful looks, saying, “excuse me, I’m waiting!” loudly, giving warnings, shaking your head or looking disapproving before finally blowing the whistle and saying “I’ve given you enough warnings” will work? Well you are in the equivalent situation every day. You need to be clear, fast and decisive to get on with the game of learning.

1. Get to know them and engage them
Greet them by their name at the classroom door. Signify to them that they are coming into your domain. Survey the group’s interests and histories – one easy way to do this is to construct a class CV of all the jobs, positions, achievements, & accomplishments of the entire group.

Activities for heightening engagement include- games, guessing games (e.g. creating a question to match the answer), ‘guess a category – give one word clues until students guess the category’, thoughtful & higher order questioning, wait-time, pacing, using movement, explaining why a topic is useful or interesting, engaging students in friendly debate – e.g. 2 teams on either side of the room with the rest on students in the middle shifting either way depending on how convinced they are by different arguments, relating ideas to students interests, creating novelty & providing interesting facts & anecdotes to go with information (e.g. personal stories about the author of a novel or a mathematical theory).

2. Instant karma is going to get you
Teaching is the career with the fastest karma. You get back what you give. Make a promise to yourself to treat people with respect all the time. Never descend to the level of yelling or using sarcasm or put-downs.

3. More carrots than sticks – build a culture of co-operation
Give more praise than punishment. Don’t take their behaviour, personally. Make behaving well desirable. Students want you to like them. Praise them & increase the amount of feedback you give them. Ne way to do this is to increase the number of statements you make than begin with “I noticed...” Rather than asking what do I do if they do X it is better to ask how can I create a classroom where these behaviours don’t happen

4. Location, location, location
Every real estate agent knows it- location, location, location! Your proximity to students makes a difference to their behaviour. If you arrange the room so you have a barrier between yourself and your students your chances of classroom control are zilch.

Use whispers and quiet comments to students as you move around the room rather than speaking across a room.

5. Have high expectations
Expect all your students to do well. Let them know they are capable and that you expect that all of them will have great lives. The motto that is best for most classrooms and schools is: “Here everyone gets smart”.

6 Run your gang
The most successful class-rooms are run like gangs. The teacher is the head of the gang and welcomes members into his or her gang. Have routines. Let students know this is the way we do things here.
7. Develop pods
A pod is a group of 3 teachers who between them care for the learning, emotional needs of a group of students as well as being the main link point for family liaison in high schools. Ideally the 3 teachers continue with the same group of students throughout their time at the school.

Most students will be able to relate to all 3 teachers. Some students however are unable to hear mixed news (praise as well as suggestions) from the one person. For these students we split the roles of the pod into:

Manager

Boundary Rider

Advocate

The boundary rider’s job is to put consequences in place. The advocate’s role is to engage and support the student and to remove themselves whenever possible, from disciplinary processes. The manager’s role is to oversee the process and to have the final say in the event of professional disagreements about student management.

8. Be clear about your standards
Choose which hills to die on- don’t react to everything. If something really pushes your buttons react early. Don’t wait till you are truly upset before dealing with it.

One of the most common mistakes some teachers make is they don’t follow through on consequences when students make poor choices. They tend to try the “ignore” tactic way too long, hoping the behavior will just go away. Or they give chances- if you do that again…. Or they try to gain a confession (or an immediate self-assessment). They threaten but don’t carry through until they are frustrated and angry and the consequence becomes a punishment given with emotion and often to the whole class rather than just the offenders.

Liaise closely with students who are not performing well. Call all parents of students below a C at midterm progress reports. During phone calls about academics, be in a “how can I help” mode- NEVER in a criticizing mode.

9. Dead time is deadly time
Use the GET IT! Model to plan lessons and learning experiences. A successfully planned lesson helps students to succeed and keeps them busy from the moment they enter the classroom.

10. Use consequences proactively
Most people think that managing behaviour is about consequences for poor behaviour. Consequences are intentionally placed last in this paper because they have the least impact.

The best interventions are non-verbal.

At the start of the year let your students know the warning signs that they may be in trouble.

For example say, “Usually I will be writing in black or blue but if I pick up the red pen you will know the entire class is about to get into trouble unless your behaviour improves immediately.”

Also introduce them to two – coloured, two-sided tokens eg. red and yellow. Say to them, “if I place this in front of you with the red side up, you will know that unless your behaviour improves immediately you will lose some of your next break. If I come back and turn it over to the yellow side you will know that you are still on notice but as long as you keep behaving well you have regained your break time. If you want to dispute this, talk to me about it in your break, Lesson time is for learning”.

You may need to use detentions occasionally. If you do make them be on the same day as the infraction, supervise them yourself and use the time to build a positive relationship with the student. Aim to make a plan to avoid a recurrence of the situation that led to the detention.
**The Neurochemistry of Learning**

Rate yourself on each of the items below (3 = very often, 2 = sometimes, 1 = occasionally, 0 = rarely)

### Dopamine
- a) I find it difficult to get focused on the task at hand
- b) I don’t feel motivated to achieve goals
- c) I’m not proud of my accomplishments
- d) I feel tired and have no energy
- e) I am reluctant to have a go

**Total Score**

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### Cortisol
- a) In class I am reluctant to ask questions if I don’t understand something
- b) I have difficulty putting what I learn into words
- c) I often can’t work out what is the most important thing to do first
- d) Small problems stress me out
- e) I feel worried and watchful

**Total Score**

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### Adrenaline

### Serotonin
- a) I am a bit of a chatterbox
- b) I get involved in lots of conflicts and disagreement
- c) I am reluctant to try new things in case I get them wrong
- d) I can get a bit revved up at times
- e) I often feel busy but don’t get much done

**Total Score**

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### Strategies

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*High scores indicate you should consider altering your neurochemical balance*

*What great luck for rulers that men do not think* – Adolf Hitler