MINDFULNESS – AN EL TEACHING & LEARNING TOOLKIT

14th May 2016

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Objectives

Research – Neuroscience behind Mindfulness & Education

❑IMPLICATIONS FOR STUDENTS
– Use mindfulness to help them overcome entrenched patterns of thinking and behaviour

❑ IMPLICATIONS FOR TEACHERS
– Insight into the behaviour and problems of unmotivated students or students who are facing difficulties

❑ PRACTICE
– A mindfulness breathing and body scan exercise

❑SCENARIOS – Role play in small groups

Coming to a school near you…

"Mindfulness: the craze sweeping through schools is now at a university near you. Even Cambridge is offering sessions to combat an increase in student stress. But is mindfulness, as some critics insist, just a silly fad?"

Harriet Swain, education reporter for **The Guardian** (Swain, 2016)

"… we can see from very hard data is if people practice mindfulness regularly it can help them achieve focus and calm..."

Jeremy Christey, chair of the university and colleges division of the **British Association for Counselling and Psychotherapy** and director of the **Students Against Depression website** (Swain, 2016)

NEUROSCIENCE:

Within 7 seconds – Unconsciously, your brain will decide on the value of something/someone[1]

When you listen to somebody talking….***your brain decides this unconsciously***

NEUROSCIENCE:

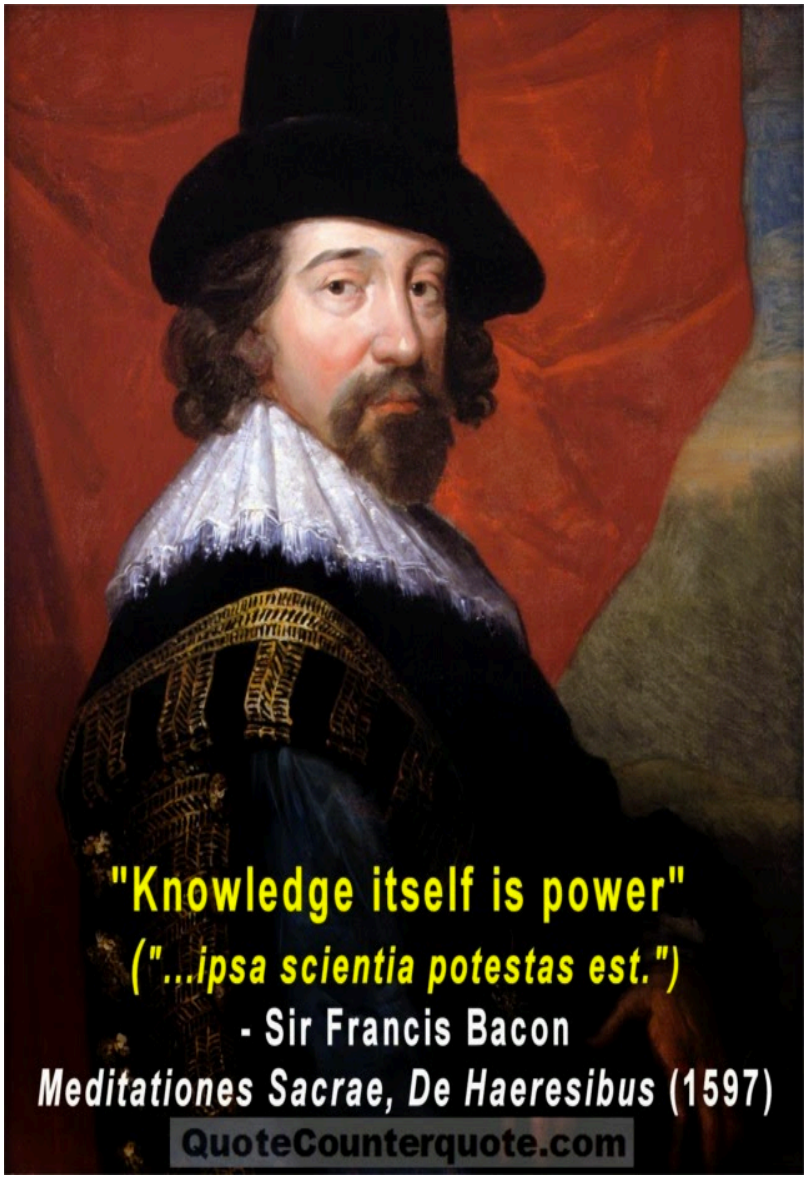
"Knowledge itself is Power"

… is this true?

- did you say yes?

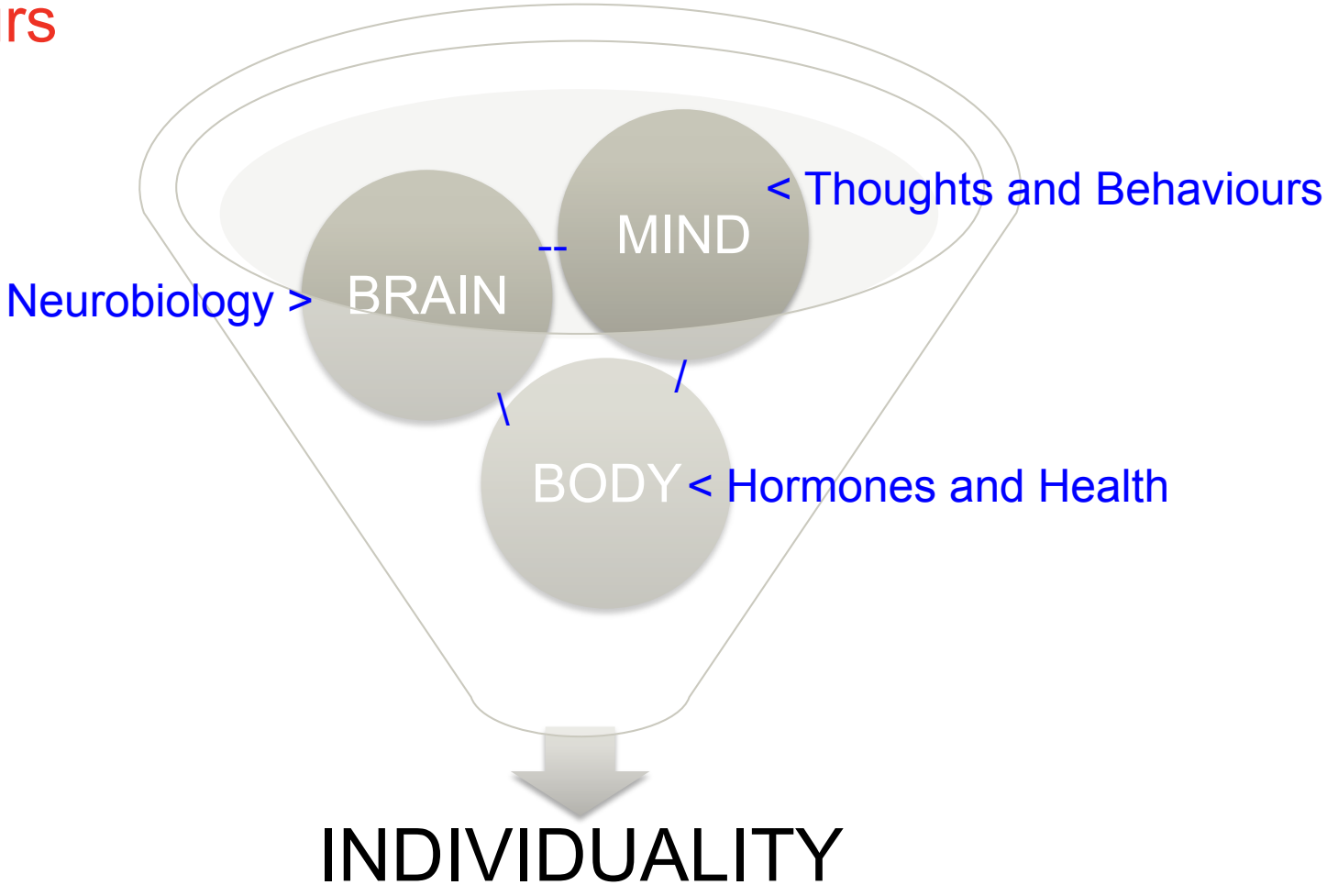
What about ***Intention***

and ***Action?***



BRAIN, MIND, BODY

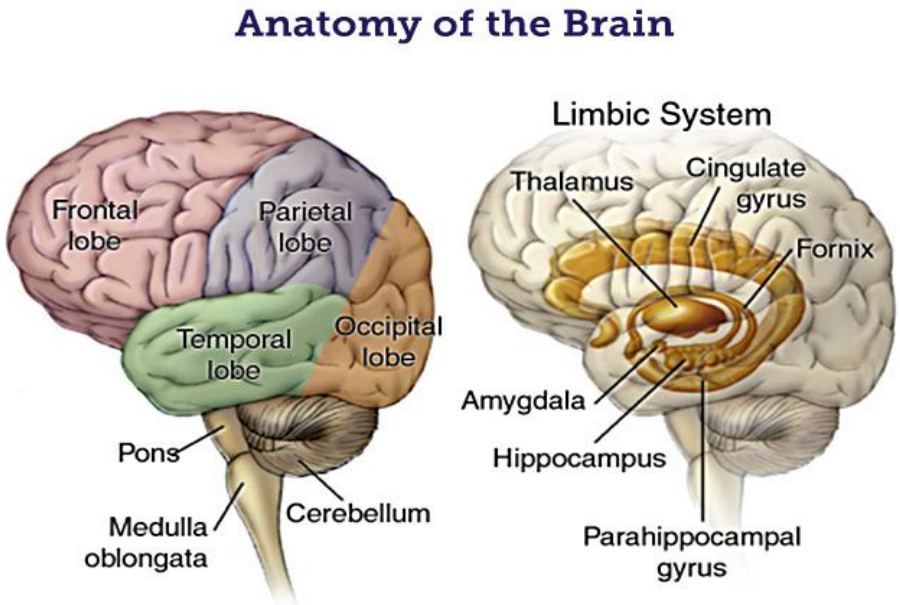
- be *mindful* of what your brain is doing … thoughts & behaviours



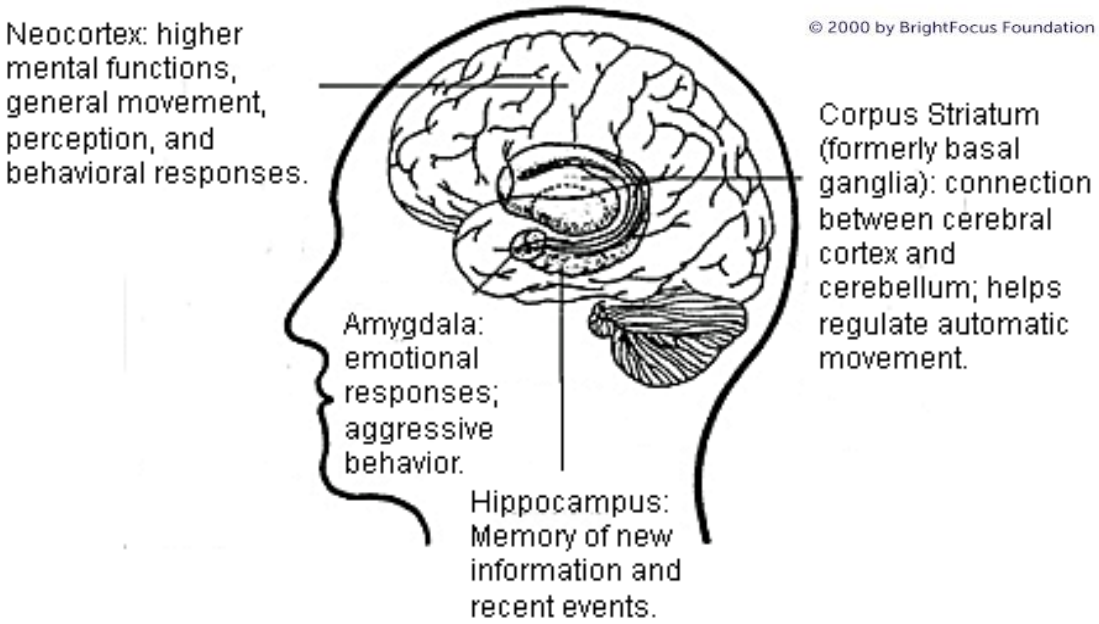
BRAIN, MIND, BODY – hierarchy of systems

Limbic (emotional brain) system contains the Amygdala which is very important – activates:

- •Emotion processing
- •role of behaviour
- • fear/threat
- •Lust & strong emotions
- •Stores memories



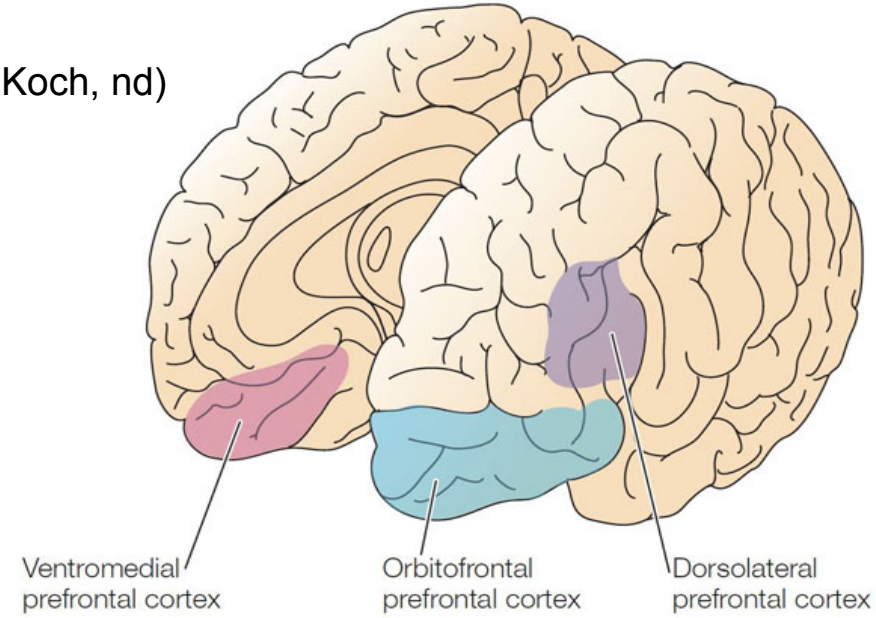
BrightFocus® Foundation
Cure in Mind. Cure in Sight.

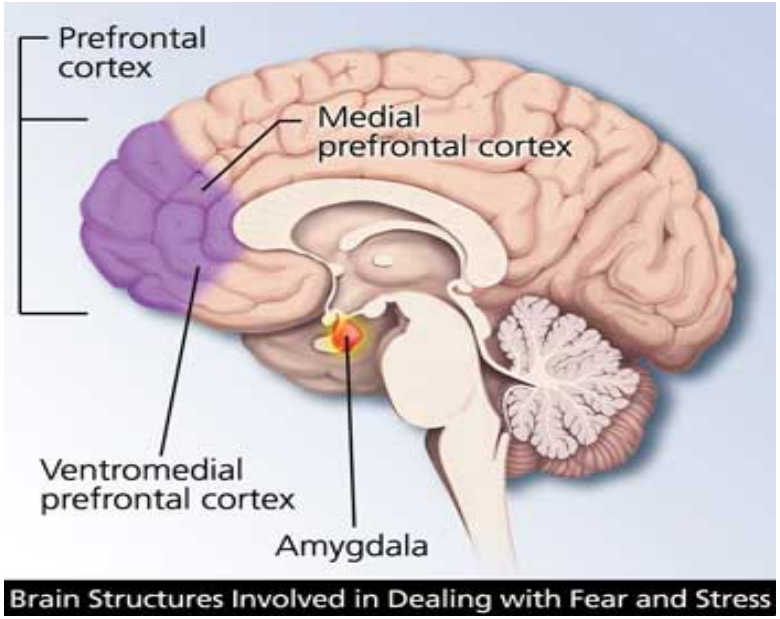


The area above the Limbic System and to the front is the Cortex - known as the executive brain.

PRE FRONTAL CORTEX

(Koch, nd)





Brain Structures Involved in Dealing with Fear and Stress

Ventro-Medial Prefrontal Cortex - Rational decision-making brain
>activates (neurons fire up > signals across the synapses) for our mind to make rational decisions.

- Neurons that fire together, wire together - strongly established pathways = habits (Gordon 1,000 time rule)
- Fear/stress > cortisol & andrenaline > initiating events in the body and brain.
- Frequent fear/stress events >overly develop fear neuro-circuitry = highjacks brain*
- VMPFC can be dampened / executive functions relatively under-developed

* more than 1 billion neurons in brain; 30k in a pin-head; none touch; Source: Taylor, P. 2009

MINDFULNESS / MEDITATION:
pause, pay attention

DEFINITION – Mindfulness/Meditation: paying attention - deliberately - without judgment, as best you can, to what is going on in your body, your mind and in the world around you. (GGSC 2015)

Brain - minimise danger & maximise reward … what's the mind up to?

Mindfulness … Cognitive Behaviour Therapy CBT

What is the 'soundtrack' in our head?

*70 – 90 thousands thoughts a day!

*Between 69 and 89 thousand are AUTOPLAY THOUGHTS

How many are negative thoughts

Observe your thoughts…watch your thinking

*Help Students - pause > pay attention > intervene, regulate

MINDFULNESS EXERCISE

… Breathing Exercise

✧ *Breathe in for the count of three.

*Breathe out for the count of 3.

*Continue ….each time slow the count very slightly.

*Don't force it – allow yourself to gently slow down your breathing for each time you repeat in and out breaths.

*Now, notice that you have come to a pace that feels comfortable, stay there – continue breathing in & out to the count of 3..

*Variation: instead of counting breaths in/out, you spell them – "c-a-l-m" or "r-e-l-a-x" (2015, Living Well)

MINDFULNESS EXERCISE … Body Scan Exercise

*MAKE YOURSELF COMFORTABLE - Sit or lie down; Loosen any tight clothing.

*FEET – Attend to the physical feelings in them: any pain, discomfort, coolness, warmth, tension, tightness?

*LOWER LEGS – Slowly, notice your lower legs: any sensations, including tightness, pain/ discomfort.

*BODY – Gently notice all your body: upper legs, hips, buttocks, pelvis, stomach, chest, lower back, upper back, fingers and hands, lower arms, upper arms, shoulders, neck, your head, forehead, temples, face – eyes, cheeks, nose, mouth, jaw line.

**BACK DOWN - Gently and slowly back down your body - any other places of pain, discomfort or tension? Just notice these on your way through back to your feet.

SELF DETERMINATION MODEL

- **key is to get students *to tell you* what you want to tell them**

SELF – DETERMINATION MODEL = Internal motivation - students own strong intention to change …Not external (from teachers compelling arguments)

- MOTIVATION – is NOT something teachers do to *convince* students … cheering, persuading, rebuking, exhorting, or coaxing *in itself* is contra-indicated
- STOP: excessive praise; pep-talks or lectures; micromanaging things they can do for themselves; using your creative words to get them going.
- **START getting students to**: *want to change and plan for the process (teacher guided) by:*

- using mindfulness/meditation in stressful situations … rewiring their brain
- doing PERSONAL VISUALISATIONS & being prepared to repeat/rehearse these
- …… there is nothing more powerful than when students feel good after relying on themselves… teachers can then observe this and give honest congratulations.

TEACHING APPROACHES & CLASSROOM MANAGEMENT

- **What psychologists tell teachers -** Trust students, trust yourself… be honest, kind and forgiving of yourself and the students.
- Haim Ginott (1971) "sane messages" approach – *slow, long term approach*. Communication with students is the key to discipline.
- Ramon Lewis (1999) – caring teachers stress more; 3 models of discipline to handling inappropriate student behaviour :

student-oriented approach > non-directive model of managing behaviour
teacher-orientated approach > directive managing style
group-orientated approach > leadership managing style.

- SCENARIOS… **STUDENT-ORIENTED APPROACH** requiring **non-directive management style. … = COLLABORATION**

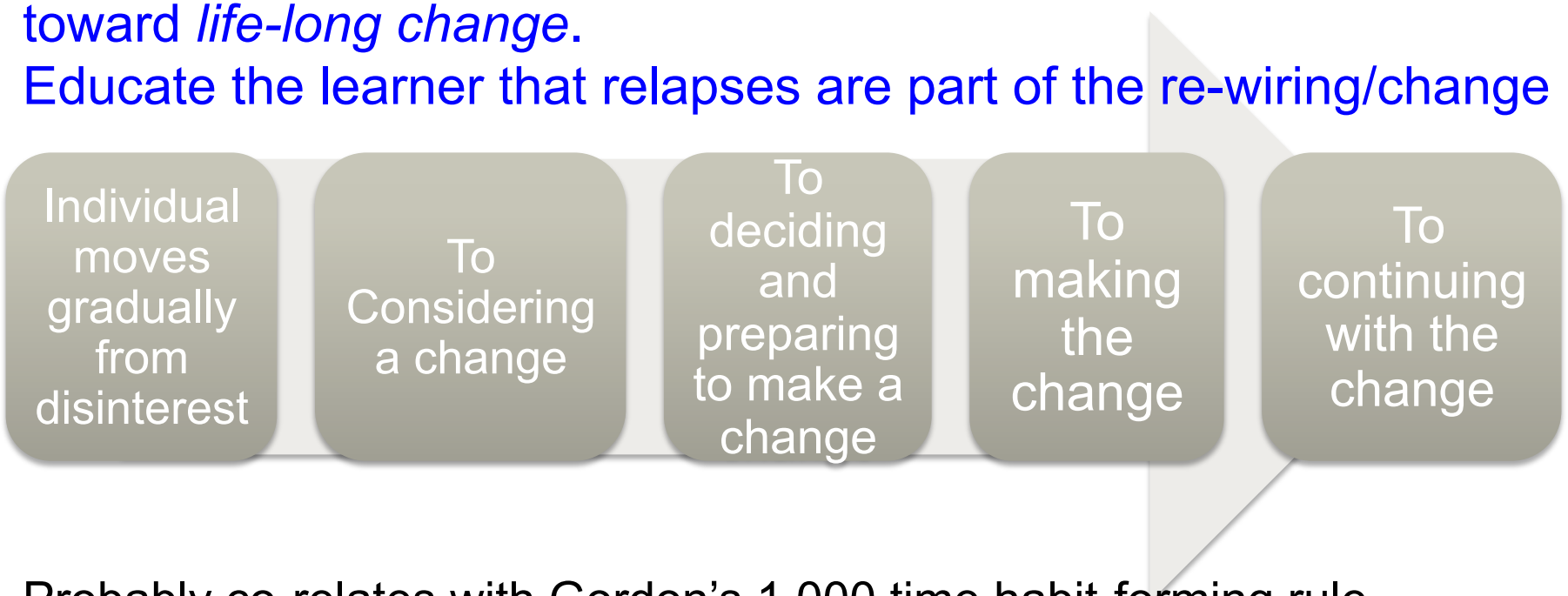
Teachers support & coach students (when relapses occur) to use mindfulness to manage self.… encourage students to:
- notice negative thinking/habits, acknowledge these but waive them by;
- visualise themselves doing new activities (behaviours) & breaking established patterns of negative thinking….

BEHAVIOUR ***CHANGE***? **RARELY A DISCRETE, SINGLE EVENT**… encourage students to be ***mindful*** of this*

Process of Change – Self Determination Model

Relapses are almost inevitable - part of the process of working toward *life-long change*.

Educate the learner that relapses are part of the re-wiring/change



Probably co-relates with Gordon's 1,000 time habit-forming rule

***CHANGE** is a (very) gradual process … frustrating - teachers can practice mindfulness to deal with *their* out-of-control feelings of frustration (GGSC, 2015)

* let's try it with the following scenarios.

SCENARIOS - 1

Goal = effectively share power with students & assist them reflect on choices for more productive coping strategies.

1) Your students are preparing for a high stakes Oral presentation. Despite your instructions to rehearse their oral presentation in pairs and give feedback, the students continue to use writing and reading (revising and editing) as their preparation.

2) You have asked students to use context to make educated guesses of unknown words while reading an article. You have modelled this and scaffolded this strategy a number of times; however, one table of students persist in using a "dictionary-dive" method, looking up L1 translations.

3) You have divided the class into small groups. Each group has an appropriately graded text to read. They are then to complete discussion questions and finally give oral feedback about their groups discussion to the whole class. Some time has elapsed, yet a number of the students continue to read individually and write answers on their own.

SCENARIOS - 2

Goal = effectively share power with students & assist them reflect on choices for more productive coping strategies.

1) You have given students instructions to commence work and notice that one boy has not started yet, but seems content on doing nothing.

2) You have asked a student to start work. S/he flatly refuses.

3) For the fourth time this week, a student fails to complete his/her homework.

4) You observe two students engaged in a loud abusive argument: one is poking his finger into the other's upper sternum.

5) A student is seen to exit the classroom but does not return.

6) A student is talking whilst you are talking; s/he flatly denies it.

7) As you are explaining a skill, a student sits reading social media.

8) A student swears at you, to your face and in front of the class.

Questions?

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APPENDIX A – Embedded Strategies

Embedded Strategies

1) Tick the activities you are currently doing

2) Complete the Learning Styles Quiz http://vark-learn.com/the-vark-questionnaire/

3) NOW… Read through and discuss which of the EMBEDDED STRATEGIES are examples of VISUAL/ AUDITORY/ KINESTHETIC learning styles.

4) Consider if you have a gap between your (i) Learning needs and Embedded Strategies habits, (ii) Learning needs and Learning Style preferences. What can you do to close this gap?

- ❑ Read a newspaper in English to practise the language and keep up with events.
- ❑ Watch a soap opera everyday to practise understanding English.
- ❑ Brainstorm with other students some possible topics for writing in English.
- ❑ Break down into parts long words and expressions in English.
- ❑ Learn by heart some routine greetings and other social conversation functions to use with Australians.
- ❑ Check yourself to see the kinds of errors you make in English and try to figure out why.
- ❑ Colour code your folder so that you can find things easily.
- ❑ Make positive statements to yourself in order to feel more confident and more willing to take risks.
- ❑ While watching the news, guess what a story will be about from the visuals.
- ❑ When you can't seem to find the word to say in English, ask someone for help.
- ❑ Seek out Australians who can help you to practise speaking English and also explain to you things about Australian culture.
- ❑ Try to figure out the reasons for doing a certain language activity, so that you can prepare yourself better.
- ❑ Take a break; find a quiet place to be on your own when speaking English is making you tired and frustrated.
- ❑ Listen in to conversations on the bus/train/tram/etc. Tell a friend about these or write a recount of them.
- ❑ Set yourself questions before you start to read a novel in English.
- ❑ When reading a textbook, look for markers: that is, headings, subheadings and topic sentences that will give you clues about meanings.
- ❑ When learning new words, create a picture in your head for the words.

APPENDIX A - Embedded Strategies … continued

- ❑ Look closely at a native speaker's mouth when they are speaking. Practise difficult sounds looking in the mirror. Try to make your mouth shape match the native speaker's.
- ❑ Listen to songs in English. Try to learn the words of songs you like.
- ❑ Go to an art museum. Get a brochure in English about the exhibition. Read about the works you like. Write your own impressions of these works.
- ❑ Give yourself a special treat when you have done something well in English.
- ❑ Play Scrabble in English.
- ❑ Keep a journal about your language learning.
- ❑ Have a native speaker friend teach you one new expression in English each day.
- ❑ Spend a day reading everything in sight – signs, billboards, magazines covers in the newsagency etc.
- ❑ When a conversation in English gets onto a topic you know nothing about, discreetly change the subject.
- ❑ Stop to determine whether you are feeling nervous in particular situations where you must use English.
- ❑ Watch a TV/Video/etc. program with a friend. Discuss the program(s) you watch together.
- ❑ Find as many ways as possible to locate the main idea when reading a passage in English.
- ❑ Ask a native speaker friend for feedback when you are speaking. Tell them you want to be corrected and stopped when you are not able to be understood.
- ❑ When writing something important in English and you experience a 'mental block', calm yourself down by listening to some relaxing music.
- ❑ Try to just listen and understand English when your speaking skills are not very good.
- ❑ Ask a local where you can go to meet interesting people.
- ❑ Read and follow recipes in English.
- ❑ When preparing to give a talk in English, figure out what is required: what are your difficulties; what you will have to do to overcome these; and what else you will have to do to give a good talk.
- ❑ While reading or listening to English, look or listen for specific things, e.g. new verbs, prepositions used with verbs. Don't worry about understanding the whole text.
- ❑
- ❑ **EXTENSION:** Adapted materials for the original Embedded Strategies game are available from the Creative Teacherette website : http://creativeteacherette.blogspot.com.au/2012/05/embedded-strategies-game.html

APPENDIX B

– Mindfulness in Education: Research Highlights

- Mendelson, T., Greenberg, M. T., Dariotis, J. K., Gould, L. F., Rhoades, B. L., & Leaf, P. J. (2010). Feasibility and preliminary outcomes of a school-based mindfulness intervention for urban youth. Journal of Abnormal Child Psychology, 38(7), 985-994.

  Mindfulness-based approaches may improve adjustment among chronically stressed and disadvantaged youth by enhancing self-regulatory capacities. This paper reports findings from a pilot randomized controlled trial assessing the feasibility, acceptability, and preliminary outcomes of a school---based mindfulness and yoga intervention. Four urban public schools were randomized to an intervention or wait--- list control condition (n = 97 fourth and fifth graders, 60.8% female). Findings suggest the intervention was attractive to students, teachers, and school administrators and that it had a positive impact on problematic responses to stress including rumination, intrusive thoughts, and emotional arousal.

- Oberle, E., Schonert---Reichl, K. A., Lawlor, M. S., & Thomson, K. C. (2012). Mindfulness and inhibitory control in early adolescence. Journal of Early Adolescence, 32(4), 565-588.

  Fourth and fifth grade students completed a measure of mindful attention awareness (self-reported dispositional mindfulness) and a computerized executive function (EF) task assessing inhibitory control. Controlling for gender, grade, and cortisol levels, higher scores on the mindfulness attention awareness measure significantly predicted greater accuracy (% correct responses) on the inhibitory control task. This research identifies mindfulness—a skill that can be fostered and trained in intervention programs to promote health and well-being — as significantly related to inhibitory processes in early adolescence.

APPENDIX B … continued

– Mindfulness in Education: Research Highlights

- Raes, F., Griffith, J. W., Van der Gucht, K., & Williams, J. M. G. (2014). School-based prevention and reduction of depression in adolescents: A cluster-randomized controlled trial of a mindfulness group program. Mindfulness, 5(5), 477-486.

  The objective of this study was to conduct the first randomized controlled trial of the efficacy of a group mindfulness program aimed at reducing and preventing depression in an adolescent school-based population. For each of 12 pairs of parallel classes with students (age range 13–20) from five schools (N = 408), one class was randomly assigned to the mindfulness condition and one class to the control condition. Both groups completed depression assessments prior to and immediately following the intervention and 6 months after the intervention. The mindfulness intervention showed significantly greater reductions (and greater clinically significant change) in depression compared with the control group at the 6-month follow-up. The findings suggest that school-based mindfulness programs can help to reduce and prevent depression in adolescents.

- Razza, R. A., Bergen-Cico, D., & Raymond, K. (2013). Enhancing preschoolers' self-regulation via mindful yoga. Journal of Child and Family Studies, 1062-1024.

  This study evaluated the effectiveness of a mindfulness--based yoga intervention in promoting self- regulation among preschool children (3–5 years old). Twenty-nine children (16 intervention and 13 control) participated in the yearlong study. The mindful yoga intervention was implemented regularly by the classroom teacher for the treatment group. Results from direct assessments indicated significant effects of the intervention across three indices of self-regulation. There was also some evidence that the children who were most at risk of self-regulation dysfunction benefited the most from the intervention.

APPENDIX B … continued

– Mindfulness in Education: Research Highlights

- Schonert-Reichl, K. A., & Lawlor, M. S. (2010). The effects of a mindfulness-based education program on pre- and early adolescents' well-being and social and emotional competence. Mindfulness, 1(3), 137-151.

  This study evaluated the effectiveness of the Mindfulness Education (ME) program, which focuses on facilitating the development of social and emotional competence and positive emotions and has as its cornerstone daily lessons in which students engage in mindful attention training. Participants were 246 students in the 4th to 7th grades. Results revealed that students who participated in the ME program, compared to those who did not, showed significant increases in optimism from pretest to post test. Similarly, improvements on dimensions of teacher-rated classroom social competent behaviors were found favoring ME program students. Program effects also were found for self-concept, although the ME program demonstrated more positive benefits for preadolescents than for early adolescents.

APPENDIX B … continued

– Mindfulness in Education: Research Highlights

- Schonert---Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K., Oberlander, T. F., & Diamond, A. (2015). Enhancing cognitive and social–emotional development through a simple-to-administer mindfulness-based school program for elementary school children: A randomized controlled trial. Developmental Psychology, 51(1), 52-66.

  This study was designed to test a social and emotional learning (SEL) program, designed for elementary school students, involving mindfulness and caring for others. 4 classes of combined 4th and 5th graders (N = 99) were randomly assigned to receive the SEL with mindfulness program versus a regular social responsibility program. Relative to children in the control program, children who received the SEL program with mindfulness (a) improved more in their cognitive control and stress physiology; (b) reported greater empathy, perspective-taking, emotional control, optimism, school self-concept, and mindfulness, (c) showed greater decreases in self-reported symptoms of depression and peer-rated aggression, (d) were rated by peers as more prosocial, and (e) increased in peer acceptance (or sociometric popularity).

APPENDIX B … continued

– Mindfulness in Education: Research Highlights

- Tang, Y., Yang, L., Leve, L. D., & Harold, G. T. (2012). Improving executive function and its neurobiological mechanisms through a mindfulness-based intervention: Advances within the field of developmental neuroscience. Child Development Perspectives, 6(4), 361-366.

  Mindfulness-based interventions that focus on increasing awareness of one's thoughts, emotions, and actions have been shown to improve specific aspects of executive function (EF), including attention, cognitive control, and emotion regulation. This article reviews research relevant to one specific mindfulness-based intervention, integrative body-mind training (IBMT). Randomized controlled trials of IBMT indicate improvements in specific EF components, and uniquely highlight the role two brain-based mechanisms that underlie IBMT-related improvements. Short-term IBMT may improve specific dimensions of EF and thus prevent a cascade of risk behaviors for children and adolescents.

- Thompson M., Gauntlett-Gilbert J. (2008). Mindfulness with children and adolescents: Effective clinical application. Clinical Child Psychology and Psychiatry, 13, 395-407.

  This article aims to provide an overview of mindfulness to professionals who are working in child or adolescent settings. Initially, it provides some orientation to and definitions from the field, before summarizing the current evidence for the utility of the approach. The article recommends specific clinical modifications for mindfulness with children and adolescents, as well as reviewing how to monitor and enhance the development of this skill. Finally, it highlights important differences among mindfulness, relaxation and other meditative techniques.

APPENDIX C – Lesson Plan

- LEARNING OBJECTIVES = GIL > student centred, self paced,, students monitor selves - mindfulness, teacher supports students - teachers apply coaching principals and student-oriented approach.

- BY THE END OF THE LEARNING SESSION: Students will have focused on
- Vocabulary in context – opinion article
- Target words/expression
- Collocations
- syntax + language use - structure/purpose > contextualised in reading exercise

* Awareness of "Embedded Strategies" + "Learning Styles" – recommended to help raise the self-awareness of *tools* students can use.

APPENDIX C – Lesson Plan: Procedure

1) Teacher dictation - introduction + conclusion paragraphs or text

2) Group work - team running dictation – body paragraphs divided up

3) Group work – Checking with solution

4) Group work – Complete the syntax/morphology table in your words

*rules during activity= no LOTES, no cheating/interference, all participate, penalty extra sentence for breaches

- Team running dictation - 4 per team + cycle the readers (intro + conclusion given first from teacher as a dictation) teacher monitors to diagnose/assist students with questions on rules* or mispronunciations … at end students are given whole text...
- Teams check the dictation they completed against the answer
- Teams list the errors they have made – choose 10 words/expressions to focus on and complete the syntax/morphology table.

APPENDIX C - HOW DOES SMOKING AFFECT OUR HEALTH? (Upper intermediate +)

Adapted from: http://www.kidshealth.org/teen/drug_alcohol/tobacco/smoking.html/accessed 23/8/2006

READ & SELECT THE CORRECT WORD

Today Australians are generally aware that smoking damages our health. Smoking causes cancer, lung damage and heart disease and can shorten ***our/the/a*** life by 14 years or more. We may know it does affect our health but what exactly ***can/do/does*** it do?

Many of the chemicals in cigarettes, like nicotine and cyanide, are actually poisons that can kill in high enough ***amounts/amount/numbers***. The body is naturally smart and defends itself whenever it senses that something is trying to poison ***it/us/them***. For this reason, many people find it takes several ***efforts/tries/times*** to start smoking. First-time smokers often feel pain or burning in the throat and lungs and some people feel sick or even vomit the first few ***attempts/times/time*** they try tobacco. The smoke goes into the lungs and the lungs cannot get rid of the smoke or the poisons in it.

The effects of this poisoning ***happen/set in/begin*** gradually. The poisons or toxins ***delay/block/limit*** a person's ability to be normally active and can be fatal. Smoking can also affect a man's ability to father children and a woman's ability to ***make/has/have*** healthy intelligent children. This happens because the smoke in the lungs reduces the amount of oxygen that the blood ***will/can/have*** pick up and oxygen is needed by the brain to function and grow. Therefore when pregnant women smoke, their babies tend to be ***fewer/more/less*** intelligent than babies of non-smokers, to be smaller and to get sick more ***easily/easy/easier***.

Smoking also limits our athletic performance. People who smoke cannot usually ***compete/complete/competes*** with non-smokers as well because of the physical effects of smoking. The heart has to work harder to overcome the reduced lung capacity. The blood cannot carry as much oxygen because of the poisons in the lungs so circulation to all body cells and functioning of all body cells is ***limit/limited/limiting***. As a result the smoker finds it harder and harder to ***breath/breathe/breathing***.

The damage does not stop there. Smokers are also injured more and get better ***slower/slow/slowly.*** Smoking affects the body's ability to produce collagen, a natural substance our body ***produced/produces/produce*** when it heals itself, so common injuries, such as damage to tendons and ligaments will heal more slowly in smokers than non-smokers. This is because the poisons in the smoke ***restrict/restriction/restricted*** the body's ability to make new body cells.

Less importantly, smoking even affects our appearance in a number of ***way/ways/wins***. Smokers' skin is not as clean or fresh looking as that of non-smokers. This is because smoking restricts blood vessels so can prevent oxygen and nutrients getting ***at/to/in*** the skin. As a result smokers often appear pale, unhealthy or old. The toxins also build ***on/up/at*** in the cells like rubbish and our bodies cannot get rid of all this rubbish in the cells. . Smokers' teeth also discolour and look more yellow and dirtier than the teeth of non-smokers.

How much does a packet of cigarettes cost? Far more than the money is the real answer. Some smokers even pay with their lives.

ANSWER - HOW DOES SMOKING AFFECT OUR HEALTH?

Today Australians are generally aware that smoking damages our health. Smoking causes cancer, lung damage and heart disease and can shorten ***our*** life by 14 years or more. We may know it does affect our health but what exactly ***does*** it do?

Many of the chemicals in cigarettes, like nicotine and cyanide, are actually poisons that can kill in high enough ***amounts***. The body is naturally smart and defends itself whenever it senses that something is trying to poison ***it***. For this reason, many people find it takes several ***tries*** to start smoking. First-time smokers often feel pain or burning in the throat and lungs and some people feel sick or even vomit the first few ***times*** they try tobacco. The smoke goes into the lungs and the lungs cannot get rid of the smoke or the poisons in it.

The effects of this poisoning ***happen*** gradually. The poisons or toxins ***limit*** a person's ability to be normally active and can be fatal. Smoking can also affect a man's ability to father children and a woman's ability to ***have*** healthy intelligent children. This happens because the smoke in the lungs reduces the amount of oxygen that the blood ***can*** pick up and oxygen is needed by the brain to function and grow. Therefore when pregnant women smoke, their babies tend to be ***less*** intelligent than babies of non-smokers, to be smaller and to get sick more ***easily***.

Smoking also limits our athletic performance. People who smoke cannot usually ***compete*** with non-smokers as well because of the physical effects of smoking. The heart has to work harder to overcome the reduced lung capacity. The blood cannot carry as much oxygen because of the poisons in the lungs so circulation to all body cells and functioning of all body cells is ***limited***. As a result, the smoker finds it harder and harder to ***breathe***.

The damage does not stop there. Smokers are injured more and get better ***slower.*** Smoking affects the body's ability to produce collagen, a natural substance our body ***produces*** when it heals itself, so common injuries, such as damage to tendons and ligaments will heal more slowly in smokers than non-smokers. This is because the poisons in the smoke ***restrict*** the body's ability to make new body cells.

Less importantly, smoking even affects our appearance in a number of ***ways***. Smokers' skin is not as clean or fresh looking as that of non-smokers. This is because smoking restricts blood vessels so can prevent oxygen and nutrients getting ***to*** the skin. As a result smokers often appear pale unhealthy or old. The toxins also build ***up*** in the cells like rubbish and our bodies cannot get rid of all this rubbish, so the skin of heavy smokers often looks older, harder and darker than the skin ***of*** non-smokers. Smokers' teeth also discolour and look more yellow and dirtier than the teeth of non-smokers.

How much does a packet of cigarettes cost? Far more than the money is the real answer. Some smokers even pay with their lives.

APPENDIX C - Continued

WORD	***FORM***	***SYNTACTIC EVIDENCE***	***MORPHOLOGICAL EVIDENCE***	***MEANING (synonym and/or definition)***
EXAMPLE Healthy	*adjective*	*Noun clause - Subject phrase.* *precedes the noun "lifestyle" to modify the meaning*	*suffix ending "y" common for many adjective. Adds syllabe after single syllable word ending in consonant cluster "th", "sh" etc.* *Other examples* ***wealth > wealthy, fish > fishy,***	*The state of being well - wellness or of physical well-being & in anatomically good condition.*

APPENDIX C – Lesson Plan: extension + variations

- Presentations of MORPHOLOGY TABLE TASK - list 5 words per group
- Variations – Team running dictation can be made more difficult by using compressed text versions.
- Extension - In groups: students to write comprehension questions + quiz other teams
- Extension – After reading the text in class. Concentric circles 3 mins discussion on opinions/claims related to the text - move clockwise outside circle only
- Variation – In groups: Write a summary after completing a “Scrambled text” around the room; groups reorder (blu-tac) > read through and write a summary or response.
- Extension – In groups: After completing the write a summary exercise above, “Write around the room” - butcher paper, coloured textas – students write the summary one sentence at a time (move clockwise after each sentence)
- Extension - Synonym/antonym team game - 2 students from opposite teams sit/ stand with backs to whiteboard, team mates line up in front of them and give them clues to guess the word - also allowed to “charade” the word clue

APPENDIX D –

Teachers: Mindfulness in Education Research Highlights

- Flook, L., Goldberg, S. B., Pinger, L., Bonus, K., & Davidson, R. J. (2013). Mindfulness for teachers: A pilot study to assess effects on stress, burnout, and teaching efficacy. Mind, Brian, and Education, 7(3), 182---195.
- This study reports results from a randomized controlled pilot trial of a modified Mindfulness-Based Stress Reduction course (mMBSR) adapted specifically for teachers. Results suggest that the course may be a promising intervention, with participants showing significant reductions in psychological symptoms and burnout, improvements in observer-rated classroom organization and performance on a computer task of affective attentional bias, and increases in self---compassion. In contrast, control group participants showed declines in cortisol functioning over time and increases in burnout. Changes in mindfulness were correlated in the expected direction with changes across several outcomes (psychological symptoms, burnout, and sustained attention) in the intervention group.

- Frank, J. L., Reibel, D., Broderick, P., Cantrell, T., & Metz, S. (2015). The effectiveness of mindfulness-based stress reduction on educator stress and well---being: Results from a pilot study. Mindfulness, 6(2), 208---216.
- This study assessed the effectiveness of an adapted mindfulness-based stress reduction (MBSR) program on educator stress and well---being. The study included 36 high school educators who participated in either an 8-week adapted MBSR program or a waitlist control group. Results suggested that educators who participated in MBSR reported significant gains in self-regulation, self-compassion, and mindfulness related skills (observation, nonjudgment, and nonreacting). Significant improvements in multiple dimensions of sleep quality were found as well. These findings provide promising evidence of the effectiveness of MBSR as a strategy to promote educator's personal and professional well-being.

APPENDIX D – continued

Teachers: Mindfulness in Education Research Highlights

- Jennings, P. A., Frank, J. L., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2013). Improving classroom learning environments by cultivating awareness and resilience in education (CARE): Results of a randomized controlled trial. School Psychology Quarterly. Advance online publication. doi: 10.1037/spq0000035

Cultivating Awareness and Resilience in Education (CARE for Teachers) is a mindfulness-based professional development program designed to reduce stress and improve teachers' performance and classroom learning environments. A randomized controlled trial examined program efficacy and acceptability among a sample of 50 teachers randomly assigned to CARE or waitlist control condition. Participation in the CARE program resulted in significant improvements in teacher well-being, efficacy, burnout/time-related stress, and mindfulness compared with controls. Evaluation data showed that teachers viewed CARE as a feasible, acceptable, and effective method for reducing stress and improving performance.

- Jennings, P. A., Snowberg, K. E., Coccia, M. A., & Greenberg, M. T. (2011). Improving classroom learning environments by Cultivating Awareness and Resilience in Education (CARE): Results of two pilot studies. Journal of Classroom Interactions, 46, 27---48.

Two pilot studies examined program feasibility and attractiveness and preliminary evidence of efficacy of the CARE professional development program. Study 1 involved educators from a high-poverty urban setting (n = 31). Study 2 involved student teachers and 10 of their mentors working in a suburban/semi-rural setting (n = 43) (treatment and control groups). While urban educators showed significant pre-post improvements in mindfulness and time urgency, the other sample did not, suggesting that CARE may be more efficacious in supporting teachers working in high-risk settings.

APPENDIX D – continued

Teachers: Mindfulness in Education Research Highlights

- Roeser, R. W., Schonert---Reichl, K. A., Jha, A., Cullen, M., Wallace, L., Wilensky, R., Oberle, E., Thomson, K., Taylor, C., & Harrison, J. (2013, April 29). Mindfulness Training and Reductions in Teacher Stress and Burnout: Results From Two Randomized, Waitlist---Control Field Trials. Journal of Educational Psychology. Advance online publication. doi: 10.1037/a0032093

The effects of randomization to mindfulness training (MT) or to a waitlist-control condition on psychological and physiological indicators of teachers' occupational stress and burnout were examined in 2 field trials. The sample included 113 elementary and secondary school teachers (89% female) from Canada and the United States. Teachers randomized to MT showed greater mindfulness, focused attention and working memory capacity, and occupational self-compassion, as well as lower levels of occupational stress and burnout at post-program and follow-up, than did those in the control condition. Group differences in mindfulness and self- compassion at post-program mediated reductions in stress and burnout as well as symptoms of anxiety and depression at follow-up.

- Singh, N. N., Lancioni, G. E., Winton, A. S., Karazsia, B. T., & Singh, J. (2013). Mindfulness training for teachers changes the behavior of their preschool students. Research in Human Development, 10(3), 211-233.

This study measured the effects of preschool teachers attending an 8-week mindfulness course on the behavior of the students in their classroom. Results showed that decreases in the students' challenging behaviors and increases in their compliance with teacher requests began during mindfulness training for the teachers and continued to change following the training. While the students did not show a change in positive social interactions with peers, they did show a decrease in negative social interactions and an increase in isolate play. Results indicated that mindfulness training for teachers was effective in changing teacher-student interactions in desirable ways.