

# A Capacity-Based Approach to Teaching Mindfulness Based Programmes (MBPs\*)

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\*Mindfulness Based Programmes are also termed Mindfulness Based Interventions (MBIs) and Mindfulness Based Approaches (MBAs) in the literature.

# MBPs: A need for clinical evolution?

# MBSR & MBCT: The Evidence Base

- Most teachers and participants of MBSR, MBCT and other mindfulness based programmes (MBPs) will have many accounts of transformative experiences associated with these approaches.
- Meta-analyses of MBPs are generally positive.
  - For example, a recent major meta-analysis by Goyal et al (2014) found that MBPs:  
*are comparable with what would be expected from the use of an antidepressant in a primary care population but without the associated toxicities. (Goyal et al., 2014, p. 364).*
- However, there are concerns that there is '*enthusiasm ahead of the evidence*' (Farias & Wikholm, 2016) and that the evidence base needs significantly developing to identify what specific mindfulness intervention is most suitable for people experiencing a particular issue.

Goyal, M., Singh, S., Sibinga, E. M., Gould, N. F., Rowland-Seymour, A., Sharma, R., ... & Haythornthwaite, J. A. (2014). Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Internal Medicine*, 174(3), 357-368.

Farias, M., & Wikholm, C. (2016). Has the science of mindfulness lost its mind?. *BJPsych Bull*, 40(6), 329-332.

# MBSR: Visionary Beginnings

- Jon Kabat-Zinn has stated that the structure of the MBSR programme emerged from a vision he experienced on a retreat in 1979 (Williams & Kabat-Zinn, 2013, p287).
  - This visionary origin is usually not mentioned in the literature that seeks to define mindfulness based programmes (MBPs) (e.g. Crane et al, 2017)
- In contradiction to its stated origins, Kabat-Zinn has also likened the structure of MBSR to the billion+ year evolutionary processes that resulted in highly efficient biological molecules becoming common to all life (despite MBSR's clearly non-evolutionarily evolved origin). Kabat-Zinn (2010, p.xv) states:

*“Having refined a process and a structure that functioned effectively over unthinkable amounts of time, almost any change in the structure [of essential molecules] is bound to lead to a diminishment of function. People have said that MBSR may be similar in some ways.”*

  - As MBSR is largely unchanged since its first iteration, this claim seems unsupportable.
- While the empirical nature of the evidence for the efficacy of MBPs is emphasised (e.g. Crane et al, 2017) the lack of any rigorous process of empirical experimental research in the origins of MBSR is generally not mentioned.

Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M. G., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological medicine*, 47(6), 990-999.

Williams, J. M. G., & Kabat-Zinn, J. (Eds.). (2013). *Mindfulness: Diverse perspectives on its meaning, origins and applications*. Routledge.

Kabat-Zinn, J. in forward to McCown, D., Reibel, D., & Micozzi, M. S. (2010). *Teaching mindfulness. A practical guide for clinicians and educators*. US: Springer.

# Intervention Integrity and Clinical Evolution:

- Leading proponents of MBSR/MBCT place much emphasis on ‘integrity’.
- The main form of ‘integrity’ espoused is ‘**Intervention Integrity**’ (e.g. Crane et al, 2017) *(see the slides from Minding the Gaps 2016 for a discussion of issues around this form of ‘integrity’)*.
- **Intervention integrity** primarily equates adherence to a manualised curriculum as a key indicator of ‘integrity’.
- This focus on intervention integrity makes sense when the intervention has been subject to a process of clinical evolution in which the intervention is progressively improved through a cyclical process of delivery, evaluation and amendment.
- If manualisation occurs without any preceding clinical evolution then a focus on intervention integrity may be inhibiting potentially increased clinical effectiveness gained from appropriate adaptations.

# MBSR and MBCT and Clinical Evolution:

- Both MBSR and MBCT were manualised prior to any significant process of clinical evolution of their curricula.
- There appears to be no agenda for taking MBSR and MBCT through any process of ongoing clinical evolution.
  - There models for ongoing development of an MBP.
  - Breathworks continues to evolve Mindfulness Based Pain Management in the light of clinical experience and advancing scientific understanding.
- Both MBSR and MBCT are held as templates for the development of adapted forms of MBPs.
- The global reach of MBSR and MBCT and the associated industry of training and delivery may also inhibit clinical evolution.

# MBCT: Early promise fading?

- The early trials of MBCT for depression showed very significant reductions in relapse compared to usual treatments.
- More recent studies have shown no significant differences with usual treatment or psychoeducation (although a sub-group of those with high childhood trauma do experience significant benefits).
  - This could be due to improving relapse prevention, better research methodology or to MBCT being offered without the close guidance of its originators (Coyne, 2016)
- Positively, MBCT, while more expensive, is offering a drug free approach that can initiate lasting behavioural and cognitive changes.
- *But given the equivocal evidence, is it too soon to be concretising MBCT as the lead approach for relapse prevention in depression in the NHS?*

James Coyne (2016) <http://blogs.plos.org/mindthebrain/2015/05/20/is-mindfulness-based-therapy-ready-for-rollout-to-prevent-relapse-and-recurrence-in-depression>

# UK MBCT Trials: Relapse rates in trials with people in remission from depression (3+ prior episodes)

Outcomes	Study
MBCT 37% relapse vs Treatment as Usual (TAU) 66%	Teasdale et al, 2002
MBCT 36% relapse vs TAU 78%	Teasdale & Ma, 2004
MBCT 47% relapse vs Anti-Depressant medication (ADM) 60%. Same costs @ 12 months	Kukyen et al, 2008
<b>Overall</b> = MBCT 46% relapse vs Psychoeducation 50% vs TAU 53%. <i>[No clinically significant difference MBCT &amp; Psychoeducation]</i> <b>Low Childhood Trauma</b> Subgroup = MBCT 51% relapse vs Psychoeducation 45% vs TAU 43% <b>High Childhood Trauma</b> Subgroup = MBCT 41% relapse vs Psychoeducation 54% vs TAU 65%	Williams et al, 2014
<b>Overall</b> = MBCT 46% relapse vs ADM 49%. MBCT more expensive @ 24 months; MBCT less cost effective ADM. <b>Low Childhood Trauma</b> Subgroup = MBCT 42% relapse vs ADM 35% <b>High Childhood Trauma</b> Subgroup = MBCT 47% relapse vs ADM 59%	Kukyen et al, 2015



# Connecting Theory to Practice

- Ideally clinical evolution is informed by a theoretical framework that provides insight into possible mechanisms of action.
- It is acknowledged that there is no compelling evidence for any hypothesised mechanisms underpinning the clinical effects of MBPs (Crane et al, 2017) and research into what mediates the clinical effects of MBPs is just beginning (Gu et al, 2015).
- The mechanisms that are proposed tend to be related to generic features of MBPs rather than being operationalised to exactly how a specific mechanism relates to the delivery of a particular practice in the context of a specific individual or group.
- We have been developing a Capacity-Based approach to teaching and curriculum design that draws on educational theories proposed by Rogers and Vygotsky and trauma theory.

Crane, R. S., Brewer, J., Feldman, C., Kabat-Zinn, J., Santorelli, S., Williams, J. M. G., & Kuyken, W. (2017). What defines mindfulness-based programs? The warp and the weft. *Psychological medicine*, 47(6), 990-999.

Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. *Clinical psychology review*, 37, 1-12.

# Models for Safe Practice

# Rogers on Learning

- We cannot teach another person directly; we can only facilitate his [or her] learning.
- The structure and organization of the self appears:
  - to become more rigid under threat;
  - to relax its boundaries when completely free from threat...
- The educational situation which most effectively promotes significant learning is one in which
  1. threat to the self of the learner is reduced to a minimum, and
  2. differentiated perception of the field of experience is facilitated.

Rogers, C. (1951) *Client-Centered Therapy*. p. 384-429. Boston: Houghton-Mifflin.

# Zone of Proximal Development

- In education, Vygotsky (1978) developed the concept of the Zone of Proximal Development (ZPD).
  - The ZPD is the difference between what a learner can do independently and what can be done with help from teachers or fellow learners.
  - Effective learning occurs within the ZPD so that the learner can now do alone what they needed help with before.
  - In mindfulness teaching the learner may initial struggle to notice wandering attention alone but is able to with the reminders of the teacher and, with practice, is able to then notice wandering attention when alone.
  - ‘Scaffolding’ developed from Vygotsky (see Wood, Bruner & Ross 1976)

Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Child Psychiatry*, 17, 89–100.

# Scaffolding: Supporting the Learner in their 'ZPD'

- Scaffolding can involve:
  - Building on / extending the learner's current capabilities.
  - Providing guidance and support that safely challenges the learner based on their current ability in the present learning environment.
  - Using explanations to help learners understand the value of what is being learned and provide cushioning around what may initially seem too challenging.
  - Reducing the choices a learner might face in a learning experience so they can focus on acquiring the intended knowledge or skill.
  - Providing clear and rich feedback and providing opportunities for learners to evaluate their own learning.

Silver, D. (2011). Using the 'Zone' to Help Reach Every Learner. *Kappa Delta Pi Record*, 47(sup1), 28-31.

# Window of Affective Tolerance

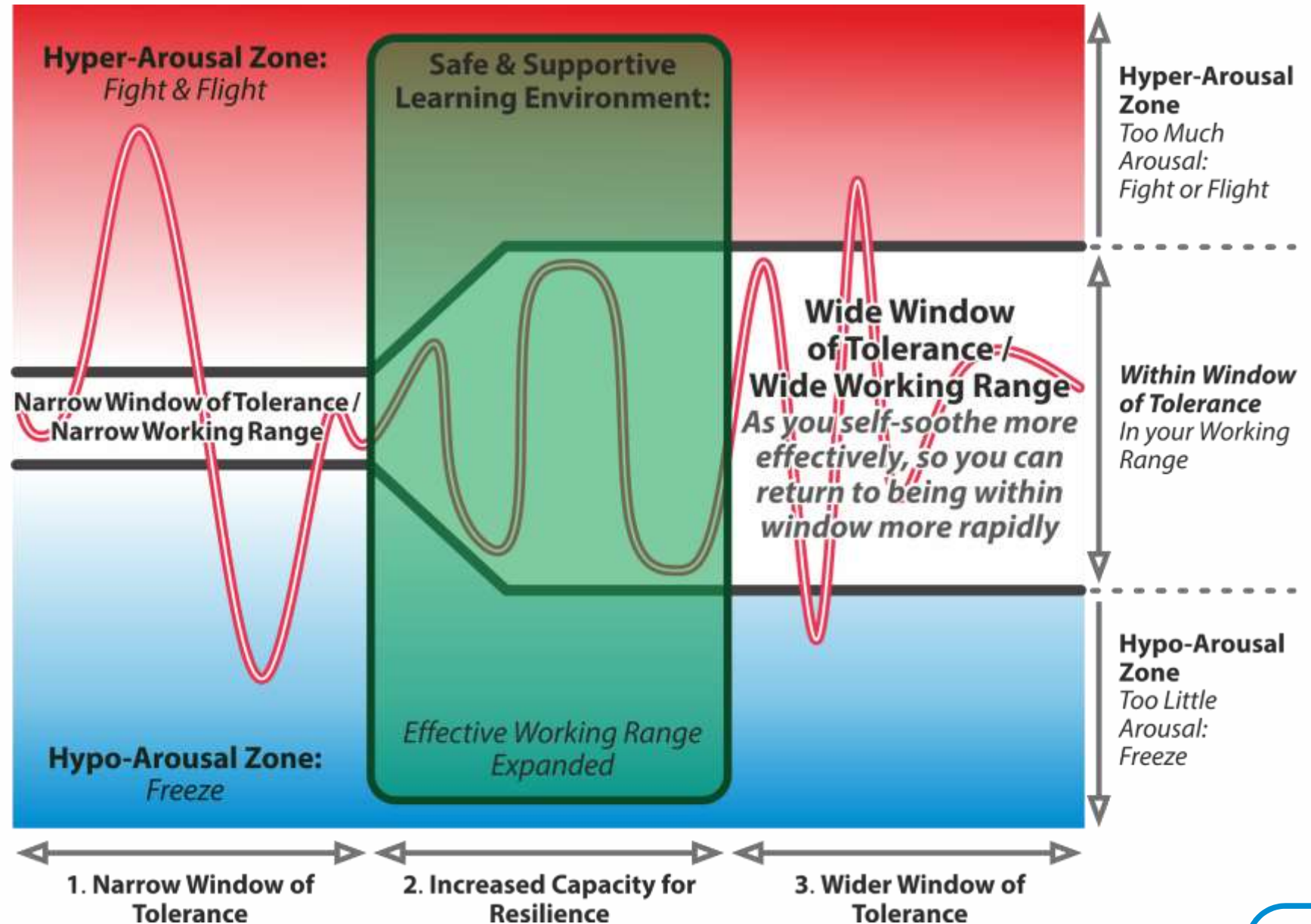
- Developing from Siegal's original concept (1999) and Porges' (2011) polyvagal theory, the concept of a Window of Affective Tolerance is often used in the context of trauma.
- This framework focuses on arousal level and provides a helpful way of explaining the protective (but often unhelpful) behaviours/reactions that arise when we experience extremes of high or low emotional arousal.
- This model has been elaborated, with a particular focus on dissociation, by Schauer and Elbert (2015).

Porges, S. W. (2011). The polyvagal theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation (Norton Series on Interpersonal Neurobiology). New York: WW Norton & Company.

Siegel, D.J. (1999). The developing mind. New York: Guilford Press.

Schauer, M., & Elbert, T. (2015). Dissociation following traumatic stress. Zeitschrift für Psychologie/Journal of Psychology.

# Window of Affective Tolerance



## Levels of the Stress Responses

Stress Response & Sequence	Nervous System	Features	Needs	Internal Consequence
<b>Social Connection</b> <i>Feels safe (<b>Within Window of Tolerance</b>)</i> <b>First Response</b> <i>Assumes that Soothing System activation has been developed in this type of stressful context.</i>	<b>Soothing System</b> Mammal Parasympathetic Nervous System - recent	Urge to connect to others through talk, contact, proximity. Self soothing e.g. through soothing self-talk.	Established / learnt sense of social safety.	Feeling of ease, trust and safety, motivation to connect to others, share experience.
<b>Fight or Flight (Hyper-Arousal)</b> <i>Feels like moderate to extreme threat</i> <b>Second Response</b> <i>If there is not a sense of social safety this response will dominate. This response can become dominant after major trauma (one form of PTSD).</i>	<b>Defence System</b> Sympathetic Nervous System	Mobilisation of system to actively attack or flee. Social disconnection (reduced empathy). Panic, rage: dissociated from social context.	Learning that action will result in safety.	Fight: self-criticism. Flight: self-isolation. Racing, repetitive thoughts. Intense images.
<b>Freeze (Hypo-Arousal)</b> <i>Feels life-threatening</i> <b>Third Response</b> <i>If fight or flight is not possible or feels too dangerous. This freeze response may persist after major trauma (a form of PTSD), situations that trigger fight or flight may then be sought to 'feel alive'.</i>	<b>Defence System</b> Ancient Parasympathetic Nervous System	Immobilisation – 'playing' dead. Collapse. Dissociation from bodily experience. Disgust.	Default reaction if above are not safe or if is learning that they are unsafe.	Numbing to emotion and senses. Isolation. Hard to think or remember.

Van Der Kolk, B. (2014). *The body keeps the score*. New York, NY: Viking.



# Trauma Sensitive Mindfulness

- Most mindfulness research has been outcome focused and investigation of participant experience of mindfulness has generally focused on type and duration of practices undertaken.
- Emerging research by Leigh Burrows and Willoughby Britton indicates that many more people experience negative reactions when practicing mindfulness than generally assumed.
  - Importantly, these negative experience occur regardless of screening and in people that may be assumed to find standard MBPs safe (e.g. college students).
- To become trauma sensitive, MBPs such as MBSR or MBCT may need much more extensive pre-course preparation or else trauma-sensitive forms be developed.

Lindahl, J. R., Fisher, N. E., Cooper, D. J., Rosen, R. K., & Britton, W. B. (2017). The varieties of contemplative experience: A mixed-methods study of meditation-related challenges in Western Buddhists. *PLoS one*, 12(5), e0176239.

Burrows, L. (2017). *Safeguarding Mindfulness in Schools and Higher Education: A Holistic and Inclusive Approach*. New York: Routledge.

Burrows, L., & Burrows, L. (2017). "I feel proud we are moving forward": safeguarding mindfulness for vulnerable student and teacher wellbeing in a community college. *The Journal of Adult Protection*, 19(1), 33-46.

# Trauma Sensitive MBPs

Adaptation Points	Key Features for Trauma Sensitive MBPs
<b>Gradual</b>	Foundation: Resources & Window of Tolerance Titration, apply brakes, honour avoidance coping
<b>Stillness &amp; Immobility</b>	More movement Care with body awareness at focus of attention
<b>Silence and Closed Eyes</b>	Short, structured practices with active guidance Eyes open
<b>Social</b>	More social connection, teacher contact Self-other boundaries maintained
<b>Body Centred</b>	Use participant-based alternative safe anchors Focus on external senses (exteroception) Stabilising resources
<b>Self</b>	Promote self-integration, autonomy and choice Honour inner wisdom Avoid subtle shaming

Adapted from a presentation by Willoughby Britton.  
Based on Treleaven & Britton (2018)

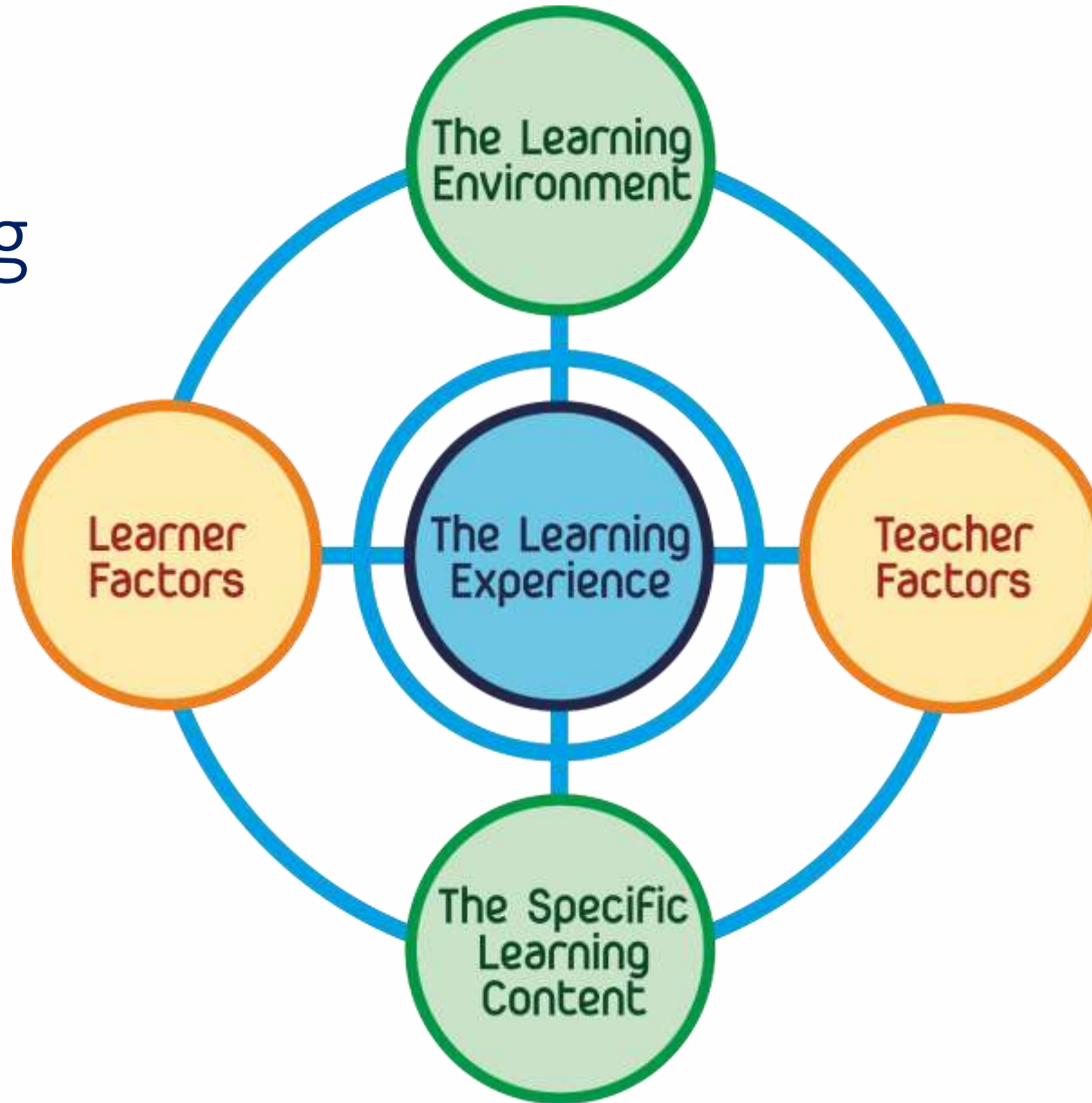
Treleaven, D. A. & Britton W. (2018). Trauma-sensitive mindfulness: Practices for safe and transformative healing. New York : W.W Norton & Company

# Window of Affective Tolerance: *Implications*

- The safety (see Rogers) and supportiveness (see ZPD & scaffolding) of the learning environment influence the working range of a learner's window of tolerance and therefore what learning takes place.
- In Hyper- or Hypo-Arousal Zones effective learning stops, instead reinforcement of reactive safety behaviours and avoidance occurs.
  - It is important to recognise that safety behaviours, avoidance, maintenance cycles are protective in the short term even if they have longer term negative consequences
  - Perceptual control theories (e.g. Pfau (2017)) offer a useful insight that reducing the impact of distressing perceptions is what drives safety behaviours and that a variety of such behaviours are used depending on the context and what is available.
- It is important to consider what factors may influence the learning experience of a mindfulness course participant.

# Effective Learning Environments

# Factors Influencing the Learning Experience



# Learner Factors:

- Capacity for active engagement with other learners, the teacher(s) and the learning experiences
- Capacity for distress tolerance
- Capacity for self-efficacy
- Capacity for learning from experience, so further developing capacities.
- Learner supported outside sessions through referral services, access to relevant professional support, financial and occupational/welfare support and through their wider social network

# Teacher Factors:

- Capacity for embodiment of mindfulness and compassion
- Capacity for holding the learning environment safely with clear boundaries and with insight into group dynamics
- Capacity for active engagement with learners
- Capacity for clear, responsive & effective communication, teaching & inquiry
- Capacity for offering differentiated learning to meet individual and group needs
- Capacity for being willing to offer appropriately challenging learning experiences to cultivate resilience
- Capacity for recognising the strengths and capacities of learners and fostering their self-efficacy
- Capacity for learning from experience, so further developing capacities
- The teacher appropriately supported by colleagues, management, access to ongoing training, availability of supervision and supportive wider social network and life situation.

# The Specific Learning Content:

- Matched to the capacities of the learners
- Safe for learners to disengage from if beyond their capacity
- Conceptually scaffolded to support the development of understanding & self-efficacy
- Potentially challenging experiences cushioned to encourage engagement in such learning opportunities



# The Learning Environment:

- Safe & supportive learning environment
- Clear & appropriate group membership criteria
- Accessible with respect to diversity: gender, age, culture, ethnicity, religion, disability etc.
- Supportive group dynamic & sense of shared learning & development
- Appropriate physical environment & teaching resources

# A Capacity Based Approach to Teaching MBPs

# A Capacity-Based Approach to Teaching MBPs

- Mindfulness is cultivated by building on existing capacities of the learner e.g. their initial capacity for noticing the wandering attention.
- A safe and supportive environment in which to cultivate the capacity for mindfulness is one that:
  - Offers appropriate challenges based on the current capacities of the learner.
  - Is scaffolded to maximise the learner's potential for learning.
- We are developing a capacity-based approach to teaching mindfulness that seeks to enable the teacher to match the structure of a mindfulness practice to the current capacities of the learner.
  - McCown (2013) has developed a similar framework that considers different teaching intentions across a mindfulness curriculum.

McCown, D. (2013). *The ethical space of mindfulness in clinical practice: An exploratory essay*. Philadelphia: Jessica Kingsley Publishers.

# Using the Key Capacity Chart

- **Vertical Order:** The **6 Key Capacities** are ordered so that the lower capacities are more likely to require the higher capacities to be established first.
- **Horizontal Order:** The 'sub-capacities' start on the left with what is more accessible and then each sub-capacity to the right represents the development of this sub-capacity towards greater resilience and/or ability.
- **Focus on the Person:** What capacities someone has at present can be matched to a form of mindfulness practice that is accessible and appropriately challenging.
  - Each sub-capacity can also be considered with respect to how it relates to the learner's **Window of Tolerance**.
- **Focus on the Practice:** Analyse an existing practice or adapt or design a practice so that it is more likely to meet a particular aim or to be appropriate for a particular point in a course or for a person's needs.

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- **Focus on the Person:** What capacities someone has at present can be matched to a form of mindfulness practice that is accessible and appropriately challenging.
  - Each sub-capacity can also be considered with respect to how it relates to the learner's **Window of Toleration**.
- **Focus on the Practice:** Analyse an existing practice or adapt or design a practice so that it is more likely to meet a particular aim or to be appropriate for a particular point in a course or for a person's needs.
- A chart of these Key Capacities is freely downloadable from: [www.attentioncycle.com](http://www.attentioncycle.com)

# A Capacity-Based Approach to Teaching

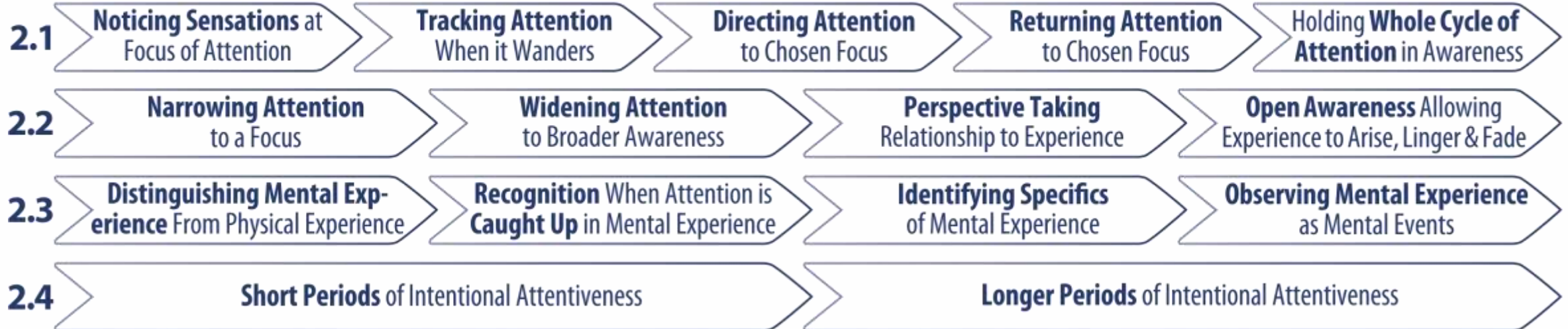
## 1 Capacity for Effective Learning (depends fundamentally on a **safe** learning environment)

- 1.1** Enabling & Trusting Participants to Engage in Practices at Their **Own Pace** Within a Curriculum Building Incrementally on Their Initial Capacities  
*Making it Safe for Participants to Disengage From Practices Beyond Their Present Capacity Without Shame or Failure*
- 1.2** Practice in **Low Intensity, Safe, Familiar** Contexts → Practice in **Low Intensity, Safe, Unfamiliar** Contexts → Practice in **Higher Intensity, Challenging, Familiar** Contexts → Practice in **Higher Intensity, Challenging, Unfamiliar** Contexts
- 1.3** Practices **Maximising Association** with **External Senses**:  
*Open Eyes, Moving, External Focus, Engaging Environment, Short, Guided* → Practices **Risking Dissociation** or **Triggering Trauma Memories**:  
*Closed Eyes, Static, Body or Breath Based, Still Environment, Long, Unguided*
- 1.4** Most **Accessible Practice** is When **Guided by Teacher in Session** → Self-Efficacy & Situation Supports **Audio Guided Practice at Home** → Self-Efficacy & Situation Supports **Self-guided Practice in Session** → Self-Efficacy & Situation Supports **Self-guided Practice at Home**



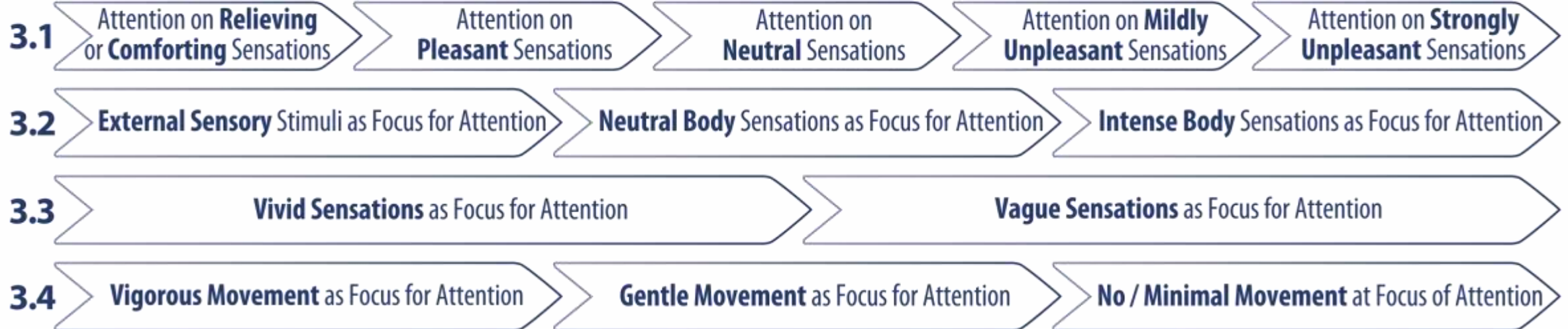
# A Capacity-Based Approach to Teaching

## 2 Capacity for Mindful Attentiveness to Present Moment Experience



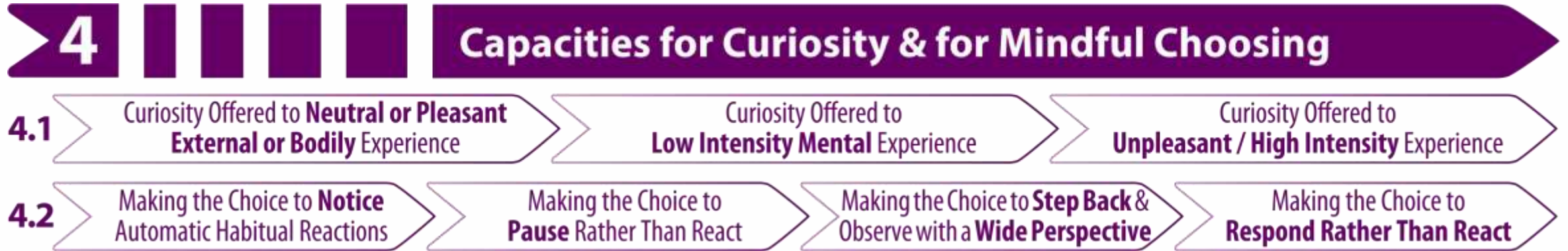
# A Capacity-Based Approach to Teaching

## 3 Capacity for Mindful Attentiveness to Physical Stimuli / Sensations





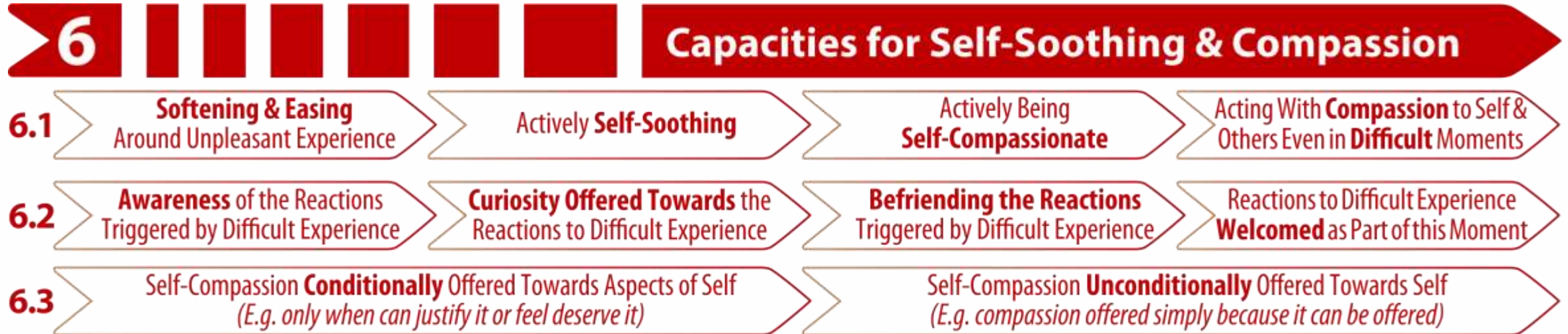
# A Capacity-Based Approach to Teaching



# A Capacity-Based Approach to Teaching



# A Capacity-Based Approach to Teaching



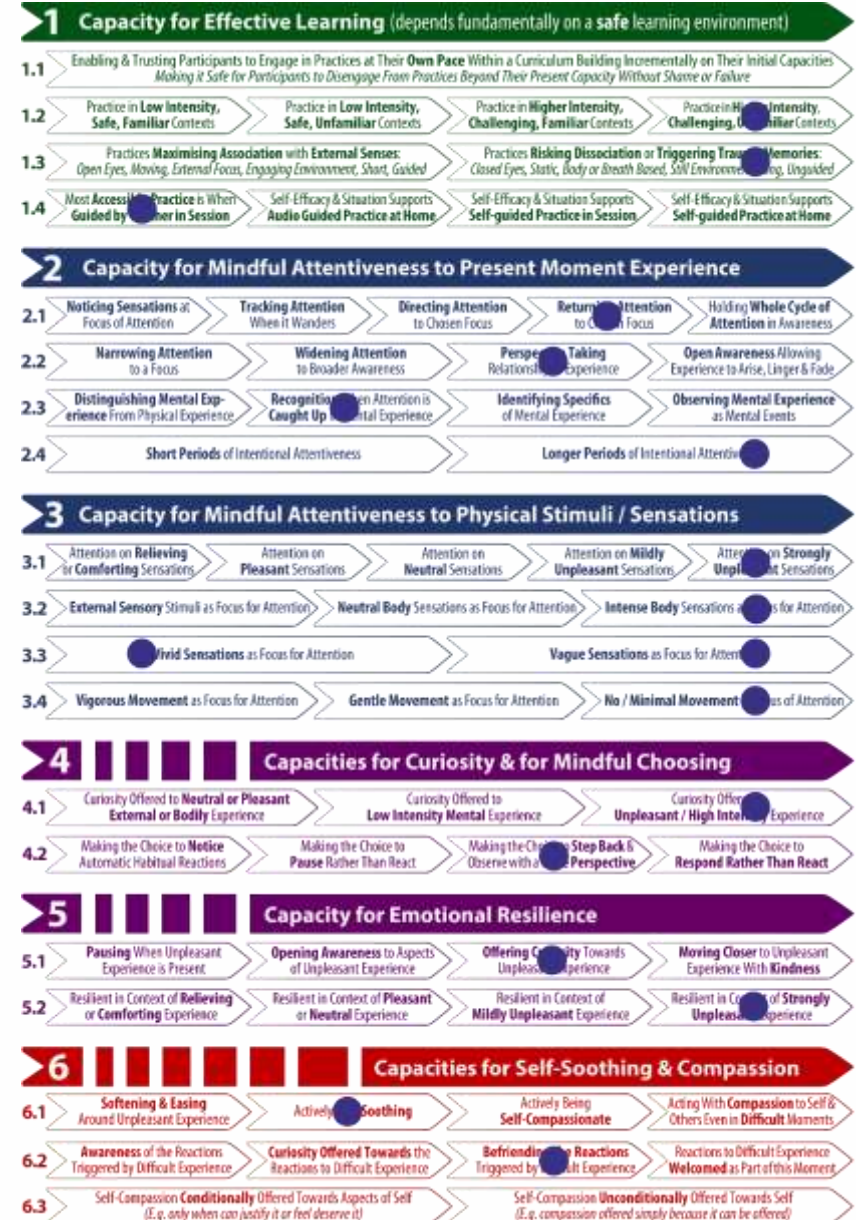
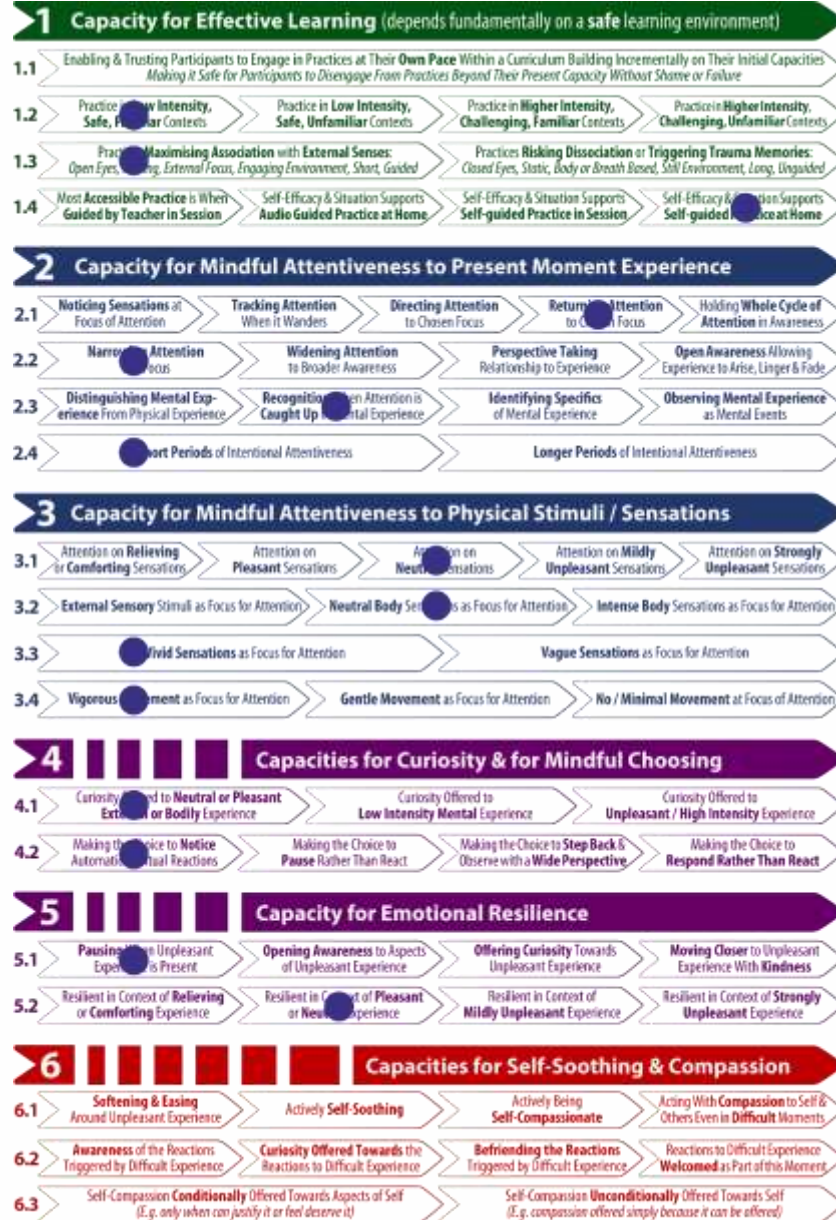
# Capacity Analysis Examples

## Learner's Situation

They are experiencing low mood and anxiety associated with chronic back pain that is limiting their capacity to do their desk-job and disturbs their sleep or rest when lying down. They find walking the dog very beneficial.

- A. Effective learning occurs when the learner is within their Window of Tolerance. Consider what capacities are likely to be available or necessary in order to learn effectively from:
  - 1. A Mindful Walking self-guided practice while walking the dog.
  - 2. A 30 minute teacher guided Body Scan practice done lying down on a mat.
- B. Which of these practices is likely to fall within the learner's Window of Tolerance?





# The Mindfulness Teaching Cycle



In education, the concept of the **teaching cycle** is widely used to:

- Provide a framework for reflection on the learning process
- Inform differentiating the learning environment so that each student has their individual learning needs met.

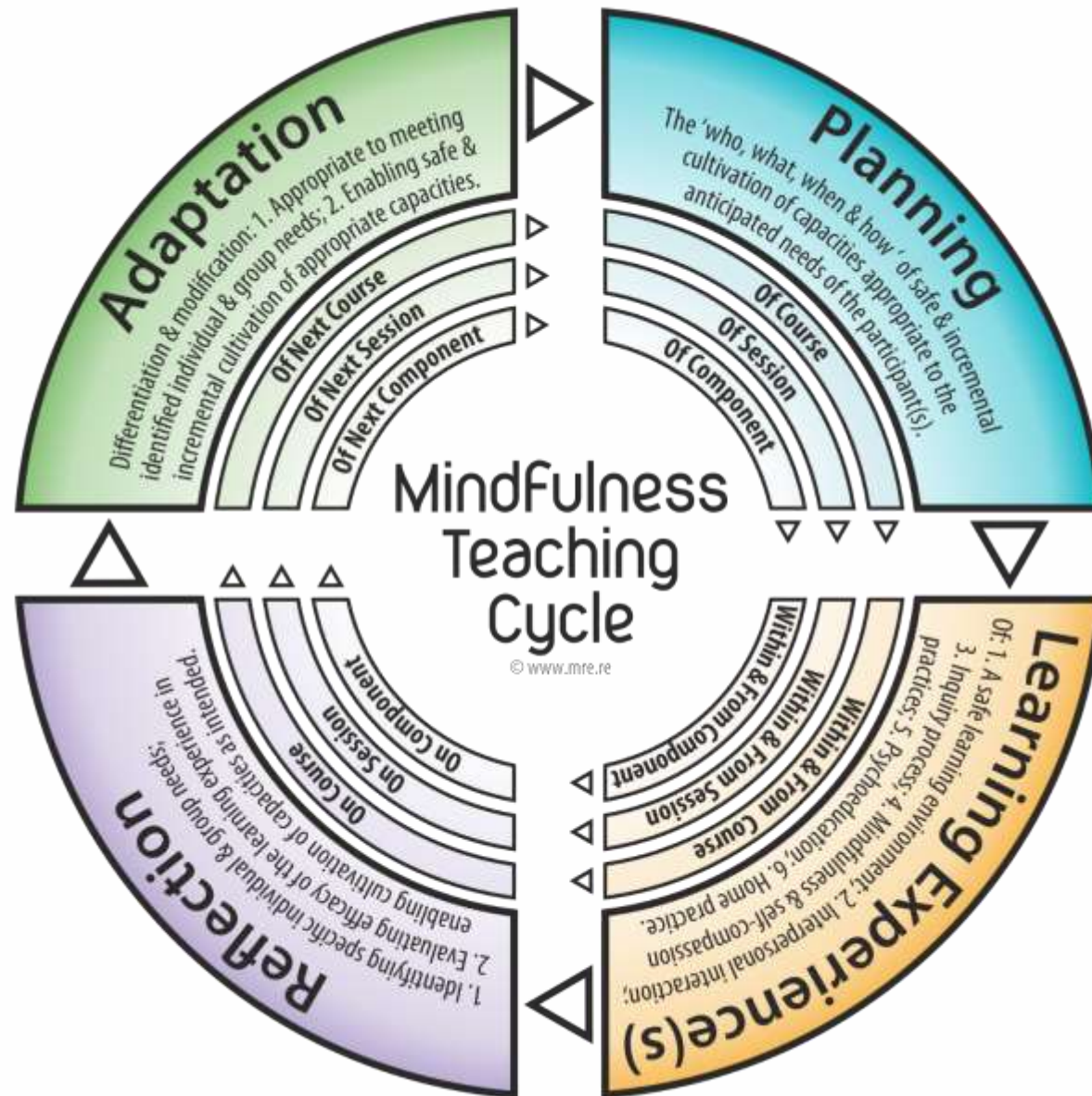
There are many variations, the following diagram offers a version adapted to reflect mindfulness teaching.

- The Reflection & Adaptation phases assume the teacher can accurately gauge learner/participant need. *However:*
  - Participants may present habits of avoidance or safety behaviours as 'need'.
  - Participants may take many sessions to develop sufficient trust with the teacher and/or to feel safe enough in the group to openly share their experience; or they may never do so before the end of course.
  - The teacher may misinterpret what participants share.

Owen, R. C. (1999). The teaching and learning cycle: A key construct of the learning network. [www.rcowen.com](http://www.rcowen.com).

Stoll, C., & Giddings, G. (2015). Re-Awakening the Learner: Principles and Tools to Create School Systems to Achieve Personalized Mastery. Rowman & Littlefield.





The advantage of short practices in the sessions, especially in the first weeks, is that there can be many more iterations of these teaching cycles (with the associated inquiry opportunities) compared to sessions with longer practices; this fosters Contextual Integrity.

# Conclusions

- Consideration of established educational theory can usefully contribute to the development of safe and supportive mindfulness curricula.
- Some well-established mindfulness curricula (e.g. MBCT, MBSR) would require significant pre-course learning by some potential participants for the sessional content to be considered appropriately challenging for participants (e.g. within their Window of Tolerance).
  - Does the assessment process prior to starting MBCT or MBSR adequately assess the Window of Tolerance of participants?
- This raises the question as to what is being experienced by participants if significant sections of a course are outside their Window of Toleration.
  - The lack of research into participant experiences is of concern.
  - Leigh Burrows and Willoughby Britton are in the forefront of this research work.

Lindahl, J. R., Fisher, N. E., Cooper, D. J., Rosen, R. K., & Britton, W. B. (2017). The varieties of contemplative experience: A mixed-methods study of meditation-related challenges in Western Buddhists. *PLoS one*, 12(5), e0176239.