BUILDING FLEXIBLE MENTAL MODELS
Agility for Success in Dental Practices
AGILE THINKING – AVERAGE IS OVER!  
EXPANDING YOUR THINKING TOOLS

AGILITY OF THINKING - The rate at which you learn and progress in the world depends on how willing you are to weigh the merit of new ideas, even if you don’t instinctively like them. Perhaps especially if you don’t like them.

What Are Mental Models?

Mental models enable us to make sense of the real world. They are a representation of the surrounding world, the relationships between its various parts and our own intuitive perception about our actions and their consequences. A mental model is a kind of internal symbol or representation of external reality, and they can help shape behaviour and set an approach to solving problems (similar to a personal algorithm) and doing tasks.

Objective: Mental Models Recognition Increases Agility with:

1. Adapting to Change
2. Overcoming Biases
3. Making Better Decisions

Change is Upon Us

“It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change.”

- Charles Darwin

Background – This course stems from the curiosity to better navigate work and life in a more informed, conscious and empowered manner. My research has illuminated the science of how we think and how mental models and biases influence our flexibility to change, understanding of others and making good decisions. Through the analysing of the data, insights have been gained, resulting in recommendations highlighted throughout this course on how we might safeguard against mental models that do not serve us well, both in the workplace and our personal lives. By becoming conscious of our default thinking systems, we gain access to broader thinking tools that lead to agile thinking in our ever-changing environments. The result is that we can consciously create tomorrow, starting today!
The Need for Meaning in our lives - Personal and professional satisfaction is linked to the meaning in our work.

The Millennial Way – CREATING A BETTER TOMORROW

CSR – GOOD FOR ALL

- Improves public image
- Increased media coverage
- Encourages personal & professional growth
- Promotes individual philanthropy
- Boost employee engagement
- Attracts and retains investors
- It is creating tomorrow today in a positive manner

Changes in Dentistry

- More Dentists
- More Hygienists
- Cost Rising
- Corporate/Multiple owners’ models
- Technology – AI
- Aging population
- Migrating to
What is one change is your team facing presently? __________________________

Where is your team in the change process? __________________________

“The attention which we lend to an experience is proportional to its vivid or interesting character: and it is a notorious fact that what interests us most vividly at the time is, other things equal, what we remember best.” – William James

Cognitive Ease (System I) or fluency is the measure of how easy it is for our brains to process information. According to Daniel Kahneman, cognitive ease is both a cause and a consequence of a pleasant feeling. Cognitive ease make us feel more favourable toward things that are familiar, easy to understand and easy to see or read.

If we feel uneasy, uncertain and/or sense a problem, we engage system 2 (Cognitive Strain).

Cognitive Strain (System II) occurs when our brain is making multiple mental calculations, reading instructions in a poor or faint font, decoding complicated language or when we are in a bad mood (or even just frowning).

Science supports that there is a default system to seek cognitive ease. Looking at our biases engages us and is more cognitive strain.

Some Examples of Mental Models

Confirmation bias (or confirmatory bias) is a tendency to search for or interpret information in a way that confirms one’s preconceptions, leading to statistical errors.

Anchoring Bias is the human tendency to rely too heavily, or "anchor," on one trait or piece of information when making decisions. During decision-making, anchoring occurs when individuals use an initial piece of information to make subsequent judgments. Once an anchor is set, adjusting away from that anchor makes other judgements, and there is a bias toward interpreting other information around the anchor.

Hindsight Bias - also known as the knew-it-all-along effect or creeping determinism, is the inclination, after an event has occurred, to see the event as having been predictable, despite there having been little or no objective basis for predicting it.

Illusion of Explanatory Depth - It is the sense that one understands causally complex phenomena more deeply than one actually does. Precision and deep understanding is missing.

Analysis Paralysis – occurs when an individual becomes so lost in the process of examining and evaluating various points of data or factors for a problem that they are unable to make a decision.

First Order and Second Order Thinking – Looking at the consequence of decisions a few steps in the future.
The key, at all times, is to think. This bias leads to a whole slew of things, such as: under-estimating risk, over-estimating risk, undue confidence in trends/patterns, undue confidence in the lack of side-effects, problems, and unforeseen consequences.

3 Strategies you can use at work (and home) to guard against mental models.
1. Seek out disconfirming evidence.
2. Ask yourself...what if someone I like was proposing this?
3. Do the work to have an opinion.

What is one the above biases that could be influencing the change at your workplace?__________________________________________________________________________________
How can this be counteracted?__________________________________________________________

UNCONSCIOUS BIAS

Diversity Is a Competitive Advantage

Companies with higher proportions of women board directors outperform others by 53%
Diverse teams outperform homogeneous ones, especially when solving complex problems

Source: "Companies with more women board directors experience higher financial performance, according to latest Catalyst bottom line report. "Gross of diverse problem solvers can outperform groups of high ability problem solvers"

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Who might be experiencing biases in dental offices?
Women
Older Adults
Ethnic Groups
4 Things in the Workplace That Commonly Trigger Unconscious Biases

**Task:** We associate certain jobs with a certain type of person

**Numbers:** When looking at a group, like job applicants, we’re more likely to use biases to analyze people in the outlying demographics.

**Clarity:** When information is lacking, our brains fill in the gaps with what we’re expecting.

**Perceiver:** A heightened emotional state can keep the conscious mind distracted


4 Strategies to Overcoming Unconscious Bias—Organizationally

1. Structure to gauge success – what does success look like, specifically?
2. Strike a careful balance between limiting defensiveness about unconscious bias, while communicating the importance of managing bias.
3. Structure the content around workplace situations.
4. Make it action oriented.

Personal/Professional Safeguards Against Unconscious Bias

- Hold yourself accountable
- Question your first impressions
- Justify your decisions
- Empower everyone to call out unconscious bias
- Create a culture of calling out unconscious bias
- Make others justify decisions
- Make decisions collectively

Specific Strategies in the workplace to guard against biases

- Increase feelings of belonging
- Defining what qualifications matter before making people related decisions
- Consistently evaluate and innovate organizational processes

How can you personally guard against unconscious bias in your workplace?

Awareness of unconscious bias can lead to changing behaviour, making your workplace more inclusive, collaborative and competitive (in a friendly manner.)
Critical thinking - At the heart of critical thinking is a form of cooperative argumentative dialogue between individuals, based on asking and answering questions to stimulate expansive thinking and to draw out ideas and underlying presuppositions. Through the questions we ask, we can uncover insights about the beliefs we hold that may be hindering clarity and understanding. Effective critical thinking searches for general, commonly held truths that shape beliefs and scrutinizes them to determine more broadened mental models.

1. Questions for clarification:
   - Why do you say that?
   - How does this relate to our discussion?

2. Questions that probe assumptions:
   - What could we assume instead?
   - How can you verify or disapprove that assumption?

3. Questions that probe reasons and evidence:
   - What would be an example?
What is... analogous to?
What do you think causes to happen...
Why?:

4. Questions about Viewpoints and Perspectives:
What would be an alternative?
What is another way to look at it?
Would you explain why it is necessary or beneficial, and who benefits?
Why is the best?
What are the strengths and weaknesses of...
How are...and ...similar?
What is a counter argument for...

5. Questions that probe implications and consequences:
What generalizations can you make?
What are the consequences of that assumption?
What are you implying?
How does...affect...?
How does...tie in with what we learned before?
"What might happen if this issue is neglected?"

6. Questions about the question:
What was the point of the question?
Why do you think I asked this?
What does...mean?
How does…apply to everyday life?
“Why do you think it important?”

The “one sperm gets in” approach AND WE SHUT OFF OUR THINKING

“The passion for stretching yourself and sticking to it, even (or especially) when it’s not going well, is the hallmark of the growth mindset.”
—Carol Dweck

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Mindfulness – tapping into Conscious Change

Mindfulness is non-judgmental attention to experiences in the present moment. It involves attention on the experience of thoughts, body sensations, emotions and observing them as they arise and go away. Intentionally paying attention with a non-judgmental attitude may lead to important changes in perspective: a decentering that involves insight, exposure, non-attachment, enhanced mind-body functioning, and integrated functioning.

Two central components:
(1) regulation of attention to keep it on the immediate experience;
(2) approaching experiences with curiosity, openness, and acceptance, regardless of whether they are positive or negative.

Mindfulness Benefits
1. Attention regulation
2. Body awareness
3. Emotional regulation
   • Cognitive reappraisal
   • Exposure, extinction and reconsolidation
4. Change in perspective on yourself
5. Self compassion
6. Creativity

Tools for Promoting Mindfulness
1. Schedule time to think
2. Go slow
3. Breathe
4. Ask critical thinking questions.
5. Look objectively at your own biases.
6. Meditate & breathe some more

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Decision Journal – The study of Our Decisions

1. The situation on context
2. The problem statement or frame
3. The variables that govern the situation
4. The complexity as you see it
5. Alternatives that were seriously considered and why they were not chosen (the work required in having an opinion)
6. A paragraph explaining the range of outcomes
7. A paragraph explaining what you expect to happen and the reasoning and actual probabilities you assign to each projected outcome (The degree of confidence matters, a lot.)
8. The time of day you are making the decision and how you feel physically and mentally (If you are tired, for example, write it down.)

What is a decision that needs to be made around the changes in your office?
________________________________________________________________________

For yourself?________________________________________________________________________

How can you move these decisions forward consciously? ______________________________

Conclusion: All human beings have mental models, whether aware of them or not. Cultivating a mindset of openness and reflection calls out mental models that do not serve us, or society well. This awareness is the first step to the conscious change process. Growing the mental muscle of biases recognition moves us forward in the change process, promoting agility in thinking, deeper connection with others, better decision making and a mindfulness to consciously creating tomorrow...starting today!
As preventive health care providers this translates into our own professional satisfaction, better care for our patients that in turn, elevates all of society.  It is good!

Contrariwise,” continued Tweedledee, “if it was so, it might be; and if it were so, it would be; but as it isn’t, it ain’t. That’s logic.”

— Lewis Carroll, Through the Looking-Glass

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