Employing Evidence-Based Teaching (EBT) Strategies to Create More Effective Learning Spaces: Moving from face-to-face to on-line Learning

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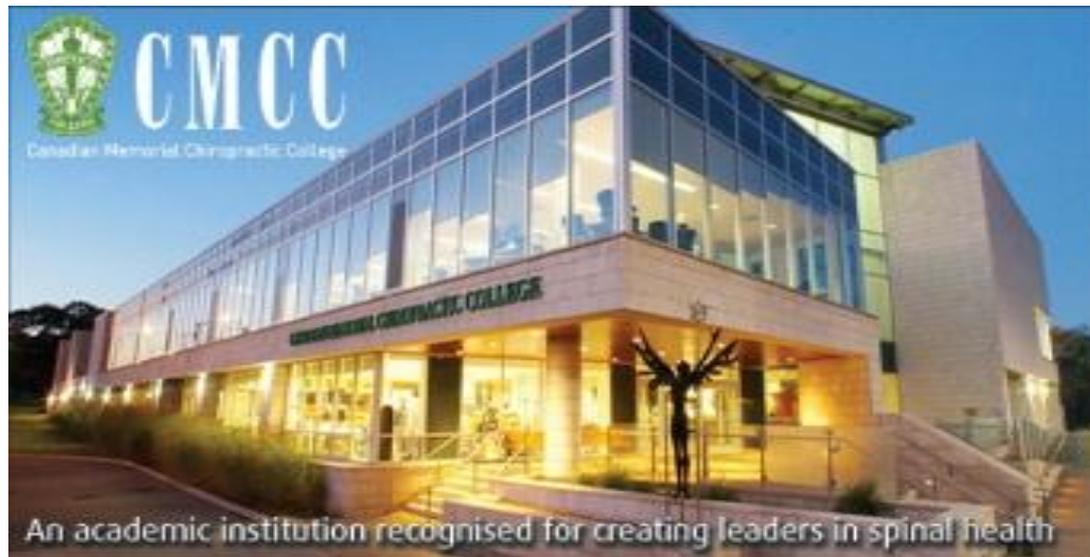
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HETL – 2013 Conference

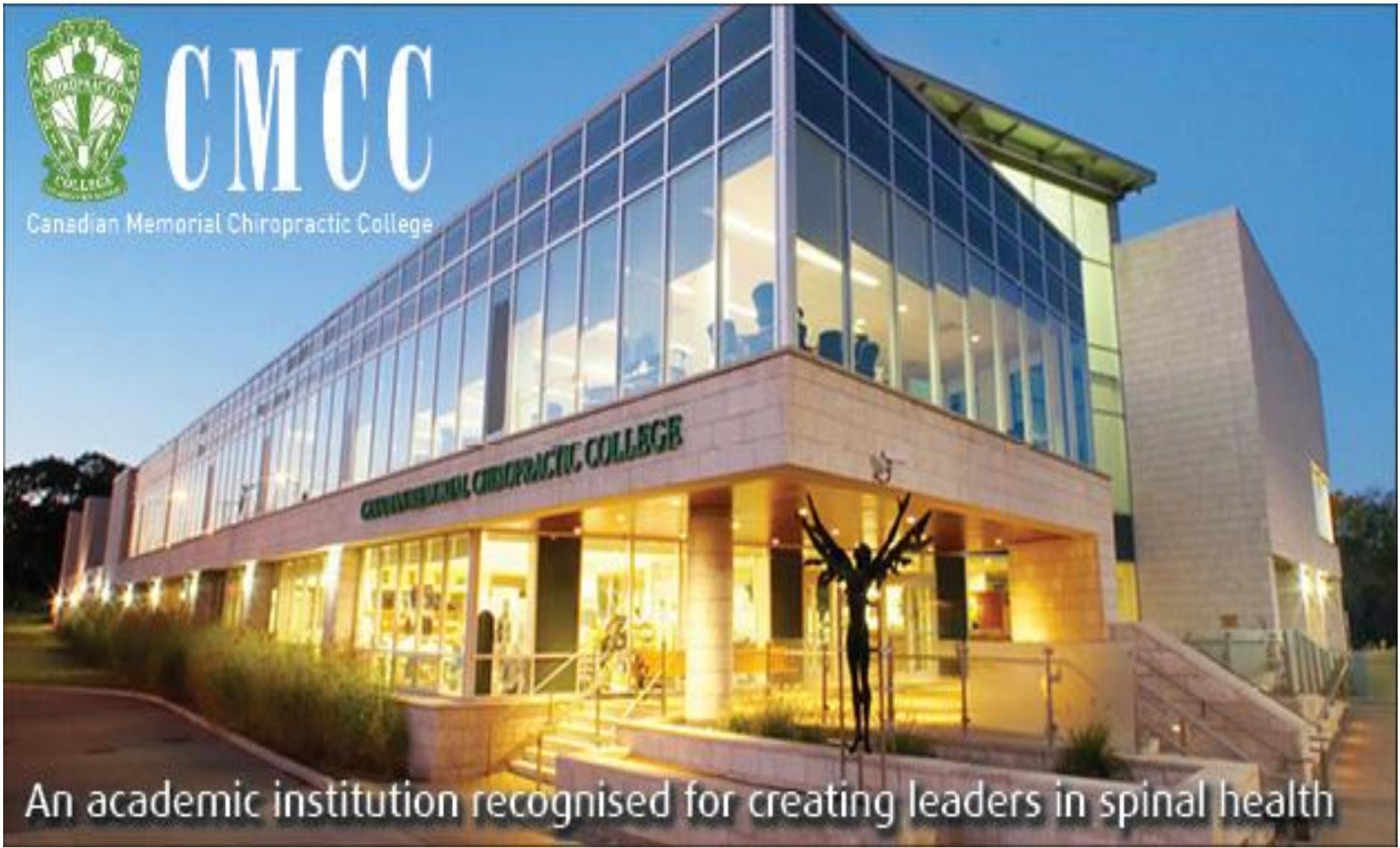University of Central Florida - January 13th – Jan.15th, 2013

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Our Goal

Share some strategies to create effective learning spaces for faculty to shift their practice from a traditional to a constructivist approach based on EBT

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The Health Science Education Disconnect

- Curriculum content is increasingly evidence based, but ...

- Teaching practice > student learning process > and outcomes, are not.

- Students need 21st C higher order skills (critical appraisal, concept integration) as program output, but ... have lower level learning (passive, rote) as main input.

- Solution: Shift practice from teaching **content** to facilitating **learning** through EBT

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Locating the TEP program at CMCC

- Developed a Teacher Education Program (TEP)
- Goals are to:
  - Model the behaviours and thinking we want to see demonstrated in practice
    - No "talking head"
    - Content work done ahead of class time
    - Class time used to process, apply and extend learning
  - Use technology as a learning tool to build skill, offset technology phobias/aversions
  - Support change in thinking and practice
  - We will focus on one example of one activity

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TEP

Session
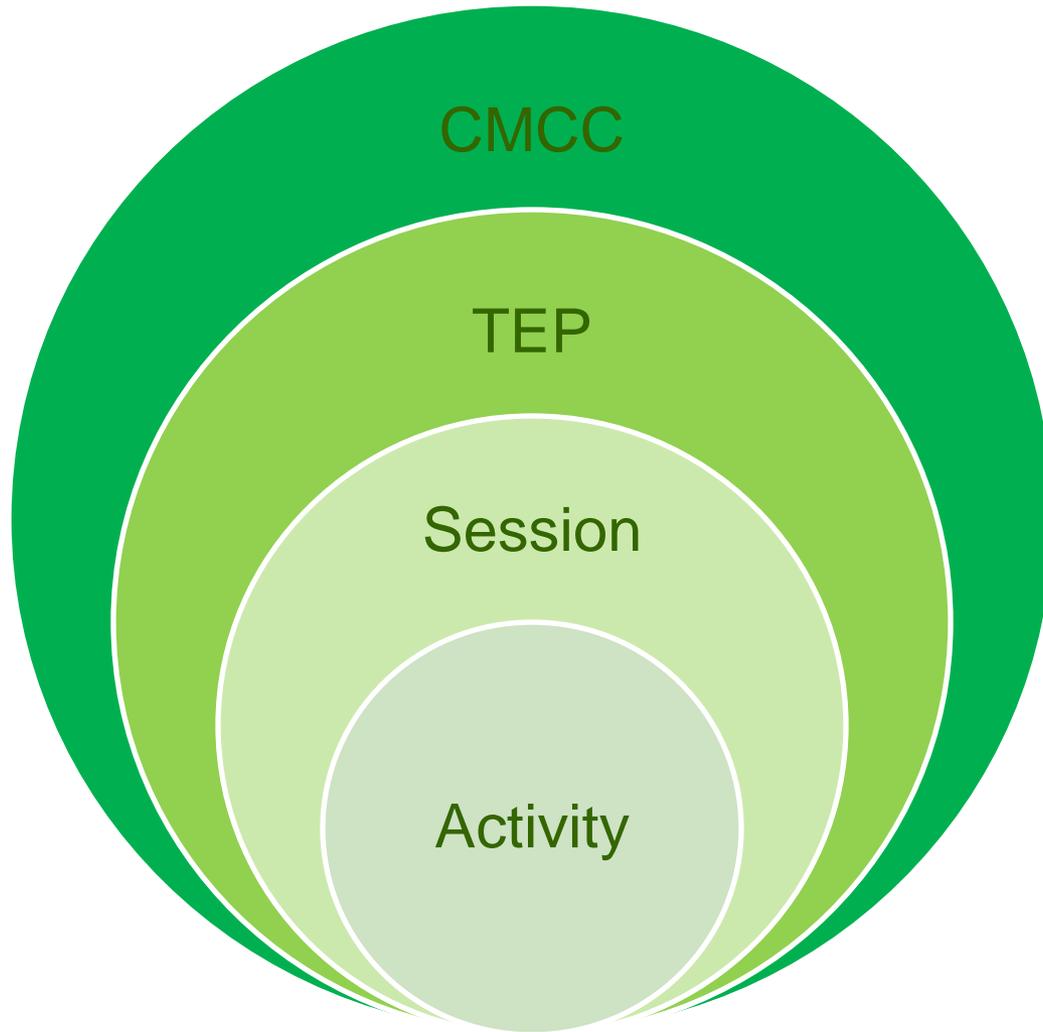
Activity

Diversity Activity

Complete:

1. Internet Research – look up:

- Diversity of your choice:

   - Race

   - Culture

   - Sex

   - Gender

   - Disability of any sort

2. Create a diversity "poster" to present to the class **(bring to class). Instructions**:

- Building on the internet research you completed on a diversity of your choice, reflect about what it means to you and create a **visual representation** (i.e., not a text based explanation) of your selected diversity

- Consider arts-informed ways to represent your diversity – e.g., pictures, artifacts, cartoons, quotes, music lyrics, song titles, poetry, clip art

- Use flip chart paper, or a regular 8.5x11 size piece of paper, or other medium to create your poster

- **Bring your completed Diversity Poster to class**

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The Clouded Classroom

My mama told me when I was young We are all born superstars She rolled my hair and put my lipstick on In the glass of her boudoir

There's nothin' wrong with lovin' who you are She said, 'cause He made you perfect, babe So hold your head up, girl and you you'll go far Listen to me when I say

I'm beautiful in my way 'Cause God makes no mistakes I'm on the right track, baby I was born this way Don't hide yourself in regret Just love yourself and you're set I'm on the right track, baby I was born this way, born this way

Give yourself prudence and love your friends Subway kid, rejoice of truth. In the religion of the insecure I must be myself, respect my youth

A different lover is not a sin Believe capital H-I-M. I love my life, I love this record and Mi amore vole fe yah

I'm beautiful in my way, 'Cause God makes no mistakes I'm on the right track, baby I was born this way Don't hide yourself in regret, Just love yourself and you're set I'm on the right track, baby I was born this way

Don't be drag, just be a queen Whether you're broke or evergreen You're black, white, beige, chola descent You're Lebanese, you're orient

Whether life's disabilities Left you outcast, bullied or teased Rejoice and love yourself today 'Cause baby, you were born this way

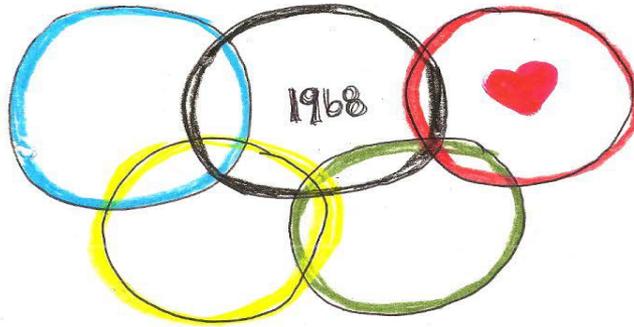No matter gay, straight or bi Lesbian, transgendered life I'm on the right track, baby I was born to survive No matter black, white or beige Chola or orient made I'm on the right track, baby I was born to be brave

I'm beautiful in my way 'Cause God makes no mistakes I'm on the right track, baby I was born this way Don't hide yourself in regret, Just love yourself and you're set I'm on the right track, baby I was born this way, yeah
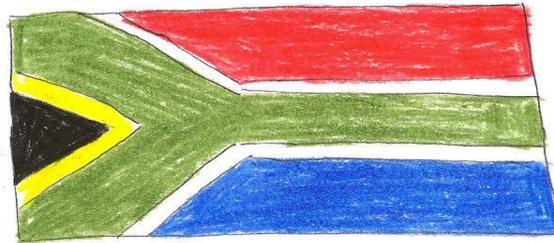
Learning and Disabilities

Dyslexia

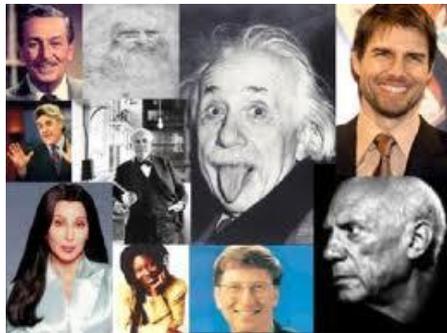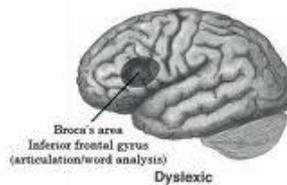My dyslexic mind   Your mind

I have dis...
dislesk...
dyslec...
I can't spell.

Parieto-temporal
(word analysis)

Broca's area
Inferior frontal gyrus
(articulation/word analysis)

Occipito-temporal
(word form)

Nonimpaired

Broca's area
Inferior frontal gyrus
(articulation/word analysis)
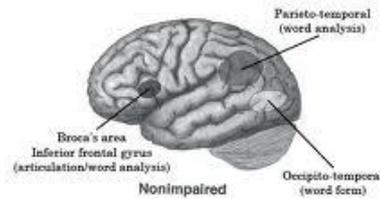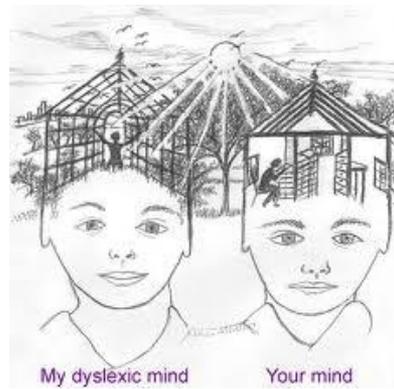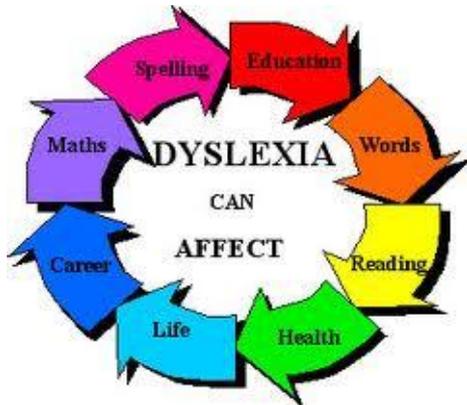
Dyslexic

rebrand

dys·lex·i·a

n. A learning disorder marked by impairment of the
ability to recognize and comprehend written words.

dys·lex·i·a

n. A learning advantage marked by the unique ability to
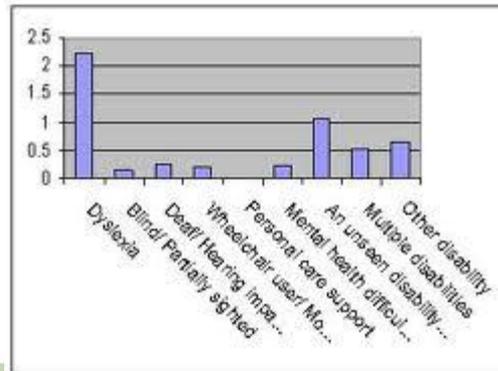recognise and comprehend complex visual patterns.

The way we see the problem is the problem. ~ Stephen R. Covey

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A movement on the Continuum of Learning
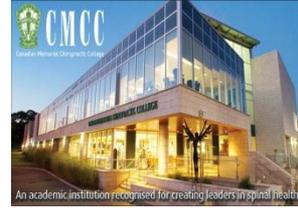
Content Focus   Learning Focus

Surface Learning
- Non-Reflective
- Lower function
- Directed
- Acquisition
- Memorize
- Rote, recall

Deep Learning
- Reflective
- Higher function
- Facilitated
- Processing
- Attach meaning
- Synthesis

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Evidence-Based Teaching

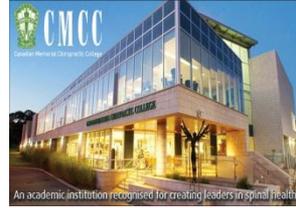EBT, from the clinical perspective is analogous to teaching practices that have been shown to *enhance student learning* under controlled conditions, and EB Practice in teaching is all about implementing these practices in the classroom through a *variety of activities* based on research. Some strategies include:

➢ *Use complex memory strategies involving changes in location, intensity of emotion, movement, art, performances, writing, mapping, and/or debate.*

➢*Add a touch of novelty - Facilitate each learning unit in a different place in the room, or use a costume, lighting treatment, or different seating arrangement. Switch classes with another teacher, go for a walk, or use props.*

➢*Alternate Learning times - Our brain runs on 90 to 100 minute time cycles alternating between highs and lows and right- and left-hemispheric dominance. Learners who struggle with a subject may find it easier 45 minutes later. Vary the times that certain types of learning occur.*

➢*Provide Patterns for learners - Prior to learning new material, support the brain with a mind-map or graphic organizer that displays connections and relationships intrinsic to the subject.*

➢*Exploration is essential - Give students the opportunity to flesh out the materials: ask questions, peer teach, discuss issues.*
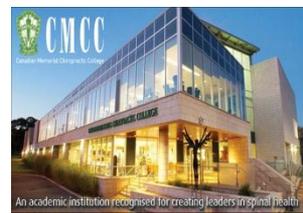
Evidence Based Teaching…2

➢ *Acknowledge a sense of movement* - *Every closing should aim to install a sense of movement. "Wow – we've come a long way"; a sense of validation: "What we learned today was really important"; and a sense of closure.*

➢ *Debrief before moving on* - *What aspects of the learning were confusing? What was especially helpful? Clarify misunderstandings, and keep a learning log or journal to reinforce your own learning. Make it a point to learn from and improve each session you conduct.*

➢ *Previews* - *When introducing any new topic, make sure that you offer a visual, auditory, and kinesthetic preview of the subject matter. It might be through maps, models, a video, or graphic organizer*

➢ *Add Repetition to preview* - *Use the 10-48-7 rule. Make sure that you review learning at 10 minute intervals (simple peer teaching is sufficient); and within 48 hours (a mind-map or demonstration works well here); and again 7 days out from the initial learning (writing, performing, and debating are good choices).*

From Traditional to Constructivist Approaches to Teaching Teachers

- Despite all of Howard Gardner's research on multiple intelligences and expanding with the proliferation of new technologies that have led to new practices, teacher education methodologies in our context have not changed much.

- As a result we decided to explore ways that multiple modalities can be incorporated in TEP.

- Faculty are at times reluctant to try new modalities so mentoring them through the process of using the visual and audio modes in order to experience, conceptualize, analyze, and apply meaning becomes a slow process.

- However, once the idea gets going – there is no turning back for them.

Using Flexible Learning Practices-
What is flexible learning?
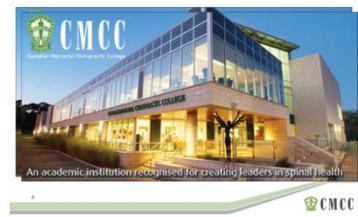
- Flexible learning is multi-layered and multi-faceted.

- It is a continuum of approaches in terms of time, place, pace, content and mode of learning applied in varying degrees.

- Its purpose is to increase opportunities and options available to learners

- Give students greater control over their learning through a variety of learning modes and interactions.

- It is an overarching driving force that provides learners greater choice.

The Pedagogical Underpinnings

- Flexible learning is learner-centred, encouraging greater independence and autonomy on the part of the learner.
- It increases choices available to both learners and teachers resulting in a 'blurring of traditional internal/external boundaries' (George & Luke, 1995).
- The key issue is how it impacts on student learning
- Enhances the quality of that learning experience.
- Improves learning outcomes
- Maximises learner engagement using appropriate learning approaches.

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THE HOW - Have Students Talk about their Learning …….

- – Use Think-Pair-Share,

- – Save the Last Word for Me,

- – Take a Stand

- – Structured discussion strategy - helps questioning

- – Explain it in own words - incorporating new information into prior knowledge.

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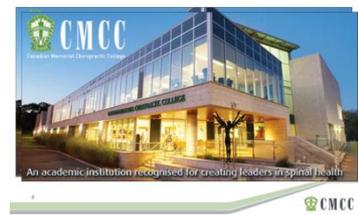
SOME Strategies in TEP

- Create a mural of a chapter they've read
- 7-8-9-Box visual strategy to summarize the most important concepts in a text
- 3 big ideas of the session – in own words
- Compare and contrast an excerpt from an article or reading through a visual representation
- Combine content with a cultural artifact
- Create a visual that represents a characteristic (Affective Domain)
- Create and use visual representations to assist students in synthesizing new information in a meaningful way.

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Utilizing New Media
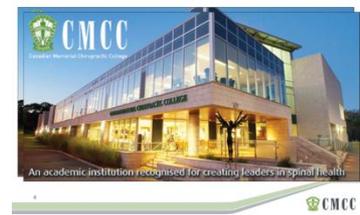
- – Encourage students to find, view and use news clips that accompany, expand upon or replace traditional print articles

- – Ask students to read the blog entries of an author in order to analyze the potential authorial intent behind a text

- – Guide students through the use of a blog, wiki, podcast or Power Point in order to represent learning of the student

- – New media is multi-modal and our students need us to guide their understanding and use of new options available.
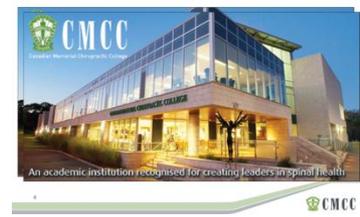
Implementation Tips

- **Modes of delivery** of material and interaction: Developing a curriculum will require teachers to make selections related to resources and how they might be delivered to the learners.

- **Structure and content:** Choices will have to be made about the program content and how that content would be structured.

- Pace: An appropriate pace of learning would have to be considered that is not overwhelming to the learner.

- **Contact and interactions** between learners and teacher and among learners: The alternatives available to conduct the interaction between learners and learners as well as learners and teachers would have to be considered and structured into the program.

- **Type and mix of media:** Teachers will have to draw from a selection of media options that suit the structure, content, interactions and learner needs.

- **Extent of self-direction of learners:** Teachers would have to make decisions on the degree to which they allow learners to be autonomous and direct their learning.

Moving towards a more integrative modality
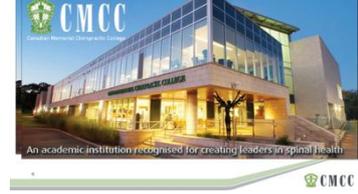
- Develop tolerance for ambiguity (recognize that there may be no "right" answer to a given question, emphasize cognitive flexibility).

- Use scaffolding principles (create material that is slightly too difficult for the student, to encourage cognitive "stretch").

- Use problems that require students to understand and manipulate course content.

- Create opportunities for high levels of interaction, both student-student and instructor-student.

- Integrate formative assessment throughout the course.
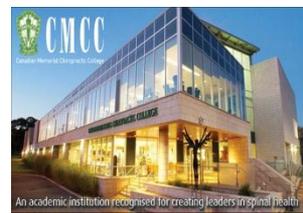
A Gentle Reminder………

- The diversity of approaches to teaching, learning and assessment does not mean that one size fits all.

- The bigger question remains - how best to use technology to enhance learning.

- Strategies will vary and will depend on the local context.

- Should be parity of online experiences and adequate discussions and meaning making in class time.

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