

SEGMENT 1: MODEL HUMAN INTELLIGENCE

Knowledge is segmented, sequential, pattern sensitive, nested, and hierarchal.

1. We learn and store information in segments
 - a. Example: Sing your favorite song from any random starting point. According to AI scientists, you are able to sing your favorite song from a random starting point because we learn and store information in segments, or chunks. You probably noticed that you didn't start mid-verse. More likely you started at a natural break point like the beginning of a verse or at the beginning of a chorus. You started at the beginning of a segment.
2. We learn and store information in sequences
 - a. Example: Without writing the number down, people can't recite their social security numbers backward in their heads.
3. The human brain looks for patterns
 - a. Example: We use stories for learning. We recognize the beginning, middle, and end.
4. Knowledge is "nested"
 - a. Example: Think of the words, images, facts, examples, beliefs, attitudes, physical sensations, emotions, and experiences you have related to trees. Our brains gather together related data and place them together in a "nest" and give the nest a label (in this case *tree*).
 - i. Nesting is the process your brain undertakes to form mental representations, concepts, and schema.
 1. Mental representation: A collection of words, ideas, images, attitudes, beliefs, sensations, and experiences.
 2. Concept: An abstract idea constructed in the mind. An idea of what something is or how it works.
 3. Schema: A cognitive framework that helps interpret information and organize effective behavior.
5. Knowledge is hierarchal
 - a. Example: We take a concept – like tree – and we can break it down into its component parts like "branches," "leaves," "trunk," "roots." Each of these parts can be broken down. For example, we could break the trunk down into bark, sap, heartwood, and so forth. We can also take our concept of tree and use it in a new and more complex knowledge hierarchy like "forest ecology," or the "logging industry," or "camping."
 - b. Everything we can know and understand has this kind of hierarchy. The more we know about a subject – like massage therapy for example, the richer, more dynamic, and more complex the hierarchy becomes.

SEGMENT 2: EXAMINE THE COMPONENTS OF THE COGNITIVE DOMAIN

1. Learning domain: A specific area (or kingdom) of inquiry, activity, feeling, or behavior.
2. Cognitive domain: Learning related to the acquisition of information, understanding, and mental skill.
3. Components of the cognitive domain:
 - a. Terms: Words that have exact meanings (approximately 2,400 in massage training programs)
 - b. Concepts: Abstract ideas constructed in the mind. An idea of what something is and how it works.
 - i. Concepts are mental representations:
 1. Words
 2. Images
 3. Facts
 4. Examples
 5. Beliefs
 6. Attitudes
 7. Physical sensations
 8. Emotions
 9. Experiences
 - c. Using concepts: When a learner can apply concepts in new ways and new situations.
 - i. Discussing ideas
 - ii. Generating questions
 - iii. Comparing or contrasting
 - iv. Identifying ideas
 - v. And more
 - d. Connecting concepts: The ability to link one concept to other concepts to deepen understanding and form knowledge hierarchies.
 - e. Problem solving: The ability to use concepts and knowledge hierarchies to think critically or creatively, and develop a plan, make choices, produce something new, or obtain desired results.
 - i. Conduct a client interview to rule out contraindications and determine client wants.
 - ii. Use visual and palpatory findings to determine client needs and share findings with clients.
 - iii. Choose session techniques and components based on client wants and needs.
 - iv. Adapt future session techniques and components based on previous outcomes.

SEGMENT 3: DISCUSS THE THREE LEVELS OF LEARNING RELATED TO THE COGNITIVE DOMAIN

1. Level 1: Receive and Respond:
 - a. Pay attention and understand what you are thinking, observing, feeling, or seeking.

- b. Learners are introduced to new words (terms); through participation in learning experiences, they turn the new words into basic mental representations (basic concepts).
- 2. Level 2: Apply
 - a. Apply concepts, hands-on skills, language, and behaviors in new ways or new situations.
 - b. Learners use the basic concepts they formed at level 1 in learning experiences that connect them to other concepts and turn them into knowledge hierarchies.
- 3. Level 3: Problem Solving
 - a. Use concepts and hands-on skills to make choices, choose options, or adapt to situations in the moment.
 - b. Learners use the concepts and knowledge hierarchies they formed at level 2 in learning experiences that require them to choose, plan, adapt and assess outcomes.

SEGMENT 4: LEARN METHODS TO TEACH LEVEL 1 OF THE COGNITIVE DOMAIN EFFECTIVELY

1. Teaching Goal: Consciously build learners' mental representations of basic massage concepts and anchor them in memory.
2. Focus:
 - a. Terms: Ensure learners can match terms to their written definitions and pronounce important terms.
 - b. Concepts: Ensure learners relate important concepts to images and can state two facts and one example for the concept.
 - c. Anchors: Make sure learning is anchored before moving on to level 2.
3. A Level 1 Basic Concept:
 - a. Image
 - b. Term
 - c. Two facts
 - d. One example
4. Teaching Methods:
 - a. Prime learners for learning
 - b. Establish context for learning
 - c. Teach terminology explicitly and systematically
 - d. Consciously build basic concepts
 - e. Add scaffolding to everything
 - f. Anchor the learning before moving to level 2
5. Prime Learners for Learning
 - a. Prime: Methods that facilitate an open and focused body-mind state in students to enhance their receptivity to new information.
 - i. What's the Forecast? Think of your student's mind-sets as weather. If the weather is stormy or gloomy, it's hard to pay attention to new information. We want to actively place our learners in a centered, open mind-set where they let go of outside anxieties and focus on the day's lesson.
 - ii. Methods for priming learners for learning
 1. Short meditation
 2. Stretching routine

3. Dance break
 4. Stomp/clap rhythm exercise
 5. Visual journaling
6. Establish Context for Learning
- a. With the proper context, learners say:
 - i. "I know where I'm at and what is happening right now."
 - ii. "I know what I'm learning about right now."
 - iii. "I know what is expected of me right now."
 - iv. "I have an idea about what is going to happen next."
 - b. Four steps to establish learning context
 - i. Hook their interest
 1. Hook: A technique used in literature, theatre, movies, marketing, and public speaking to provide context and arouse the interest of an audience so that they pay attention.
 - a. Tell a personal story related to the content
 - b. Set up the lesson with a real-world scenario
 - c. Offer a perplexing or surprising statistic
 - d. Make a provocative statement
 - e. Present a case study to unravel
 - f. Illuminate a troubling issue
 - g. Ask a compelling question
 - h. Offer a problem to solve
 - ii. Explain the big picture
 1. How does today's lesson fit into the universe of this unit, module, or course?
 2. Where we've come from
 3. Where we are right now
 4. Where we're headed next
 - iii. Share goals and expectations
 1. No learning objectives
 2. Goals should feel tangible and achievable
 - iv. Tell them why they care
 1. Marketing research demonstrates that people care more when you tell them why they should care. Education research demonstrates that learners learn more when they care.
 2. Ensure learners know why they should care about a topic. Help them make it personal to their own lives.
7. Teach Terminology Explicitly and Systematically
- a. Identify the key terms you intend to cover in the lesson.
 - b. Define, pronounce, and discuss these terms before a learning experience.
 - c. Researchers say that students can learn up to 22 terms during a 3-hour lesson so long as terminology is taught explicitly and systematically. If terminology is not taught systematically and explicitly, they can pick up 8 words during a lesson if they are listening closely and trying hard to learn. So people! You get approximately 290% more learning when you teach terminology explicitly and systematically.
 - d. If your school uses ABMP Exam Coach, previewing key terms is easy. Review the recommendations in the teacher's guide as Kim discussed yesterday. If you don't have

ABMP Exam Coach, you can still teach terminology explicitly and systematically, it will simply take more prep work.

- e. Provide complete vocabulary lists (see the sample for the integumentary system)
 - f. Practice the pronunciation of terms before the lesson
 - g. Use textbooks to label diagrams before the lesson
 - h. Match written definitions to related images using textbooks
 - i. Verbalize term definitions with students
 - j. Match images with terms on PowerPoint slides and preview terms before a lecture
8. Consciously Build Basic Concepts
- a. Navigation: Tell learners where they are in the presentation
 - b. Introduce a term/concept: Introduce a term or concept with a formal definition
 - c. Offer facts and examples:
 - i. Fact: A piece of information used as evidence that something is true
 - ii. Example: A thing characteristic of its kind or illustrating a general rule
 - iii. Facts and examples must be broken out onto their own slides
9. Anchor Learning
- a. A method used at the end of a learning segment to reinforce key information.
 - b. Quick quizzes
 - i. Students appreciate multiple choice quick quizzes because it demonstrates how they might see the information on an exam.
 - c. Response moments
 - i. A pause in the lecture where learners are asked to think about information on a personal level.
 1. Give learners a chance to journal or discuss in pairs or small groups
 2. Choose one or two people to share in the large group
 3. Time consuming (7-15 minutes each)
 - d. Concept checking questions
 - i. Questions that compare a correct statement with an incorrect statement to check learner comprehension and fill in knowledge gaps.
 - ii. Example: When learners connect concepts do they “nest” data or do they build knowledge hierarchies? (they build knowledge hierarchies).
10. Add Scaffolding to Everything
- a. Scaffolding is the support you give learners to help them get from Point A (where they are at the beginning of a lesson) to Point B (where you want them to be at the end of a lesson) more easily.
 - i. Content outlines
 - ii. Term definitions
 - iii. Lecture notes
 - iv. Graphic organizers
 - v. Rubrics
 - vi. Checklists
 - vii. And more
11. Drill and Practice Level 1 Regularly
- a. Spaced practice: Learners must “rehearse” level 1 content to anchor it in long-term memory.
 - b. Drill and practice: Practice the information, go do something else. Practice the information, go do something else. Practice the information, go do something else, pass the MBLEx, forget about it, and live happily ever after as a massage therapist.