**Applying Bloom’s Taxonomy to the Clinical Learning Process**

In 1956, Benjamin Bloom identified 3 primary types (or “domains”) of learning:

* Cognitive: Knowledge and development of intellectual skills
* Affective: Growth in feeling / attitude about what is learned
* Psychomotor: Development of physical skills

All 3 types of learning are important in the development of PT and PTA students in the clinical setting.

Bloom also identified a hierarchy for learning within each of the 3 domains, beginning from the simplest behavior and progressing to the most complex.

Utilizing a deliberate, progressive process of learning within any of these domains can assist a student to more easily acquire and comprehend clinical information.

What follows is a list of the 3 Bloom’s Taxonomy domains, the progressive levels of learning within each domain, and examples of prompts one might utilize to stimulate a student’s understanding at each level.

**COGNITIVE** (Gaining knowledge)

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| **Bloom’s Level / Category** | **Description** | **Sample Prompts** | **Examples** |
| Remembering / knowledge | Recalling data | Who? What? Where? When? How?  Describe:\_\_\_\_\_\_\_\_  What is\_\_\_\_\_\_\_\_\_\_? | Describe the anatomy of the rotator cuff and its relationship to surrounding structures. |
| Understanding | Comprehending the meaning; interpreting the problem | Explain in your own words.  What is the main idea?  What’s the difference between\_\_\_\_\_\_\_ and \_\_\_\_\_\_? | Explain how rotator cuff impingement (RCI) occurs.  What are risk factors for RCI?  What is the difference between functional and structural impingement? |
| Applying | Putting theory into practice | How is \_\_\_\_\_ an example of \_\_\_\_\_\_?  How is\_\_\_\_\_\_ related to \_\_\_\_\_\_\_?  Why is \_\_\_\_\_\_ significant? | With what signs and symptoms would a patient with RCI present?  Why is a painful arc significant? |
| Analyzing | Separates concepts into components; Interprets elements; Distinguishes facts from inferences | Provide evidence that \_\_\_\_\_ is correct.  What are the parts of \_\_\_\_\_?  Classify this according to \_\_\_\_\_\_\_\_.  Outline the processes involved in \_\_\_\_\_\_\_. | What information does your patient provide about his injury that could correlate to RCI?  Are there symptoms that could lead you to question a diagnosis of RCI? |
| Evaluating | Making judgments about the value of ideas. | Compare and contrast.  Select the best option.  Critique the activities. | What tests or measures could be used to rule in / rule out this diagnosis?  Given the results of tests and measures, what differential diagnosis makes the most sense? |
| Creating | Putting parts together to form a whole. | What solutions would you suggest for \_\_\_\_\_?  How would you design a new \_\_\_\_\_?  Organize the following activities:\_\_\_\_\_\_\_\_\_. | Given the patient’s diagnosis / symptoms, what treatment options are most appropriate? |

**AFFECTIVE** (Feeling / attitudes)

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| **Bloom’s Level / Category** | **Description** | **Sample Prompts** | **Sample Learning Activities** |
| Receiving | Listening; willingness to hear | Pay attention to the information provided.  Read information about:\_\_\_\_\_\_\_.  Investigate the following information: \_\_\_\_\_\_\_.  Poll your peers to determine their thoughts on \_\_\_\_\_\_\_. | If you are not knowledgeable about the Muslim culture, where can you go to find information about that culture? |
| Responding | Reacting & participating actively | How do you feel about this information? | What did you learn about the Muslim culture from your exploration? What questions do you still have?  What are commonalities and differences between Muslim faith, Christianity, and Judaism? |
| Valuing | Placing a value or worth on something; forming opinion | What does this information make you want to do / change? | What have you learned about being Muslim that might change your understanding or view of the faith? |
| Organizing | Reconciling internal conflict; integrating new value | How does this new information fit into your prior schema?  Has this information caused you to begin changing your thinking or way of doing things? | How might you change the way you interact with patients of Muslim faith, given your new knowledge?  What might you do differently?  What challenges / prejudices do you still have that you need to reconcile? |
| Internalizing | Acts consistently with the new value | Long-term, how has this knowledge changed the way you think or how you handle a situation? | How will your views and interactions change long-term, based on the experiences you have had? |

**Psychomotor** (Physical skills)

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| **Bloom’s Level / Category** | **Description** | **Sample Prompts** | **Sample Learning Activities** |
| Imitation | Observe and replicate; copy | Watch what I do and repeat it. | Demonstrate a joint mobilization on a patient and then have the student try to reproduce the joint mobilization on the CI or a peer. |
| Manipulation | Reproduce what you saw with instructions or from memory | Read and do.  Listen to instruction and perform. | Student performs the joint mobilization again from memory or after reviewing independently, on the CI or a peer, with corrections given, as necessary. |
| Precision | Execute skill reliably and independently | Perform an activity to competency. | Student practices on the CI or peer until competence is demonstrated in the joint mobilization. |
| Articulation | Utilize skill to solve a related problem | Combine skills together accurately.  Apply the skill to a specific problem. | Student performs joint mobilizations, as practiced, as a portion of a patient treatment intervention. |
| Naturalization | Unconscious mastery of activity and related skills | Perform multiple skills accurately in context to a problem without physical or mental exertion. | Student naturally performs a combination of treatment techniques which include joint mobilizations, applying modifications to techniques, as indicated by patient response. |