

## **MODULE 20: REMEDIATION**

### **Cognitive goals**

At the completion of this module the student-instructor should be able to:

- 20.1 Use his or her own words to define and describe remediation
- 20.2 Describe the steps of the remediation process
- 20.3 Describe the critical components to include when performing an assessment of a problem requiring remediation
- 20.4 List skills critical to student learning success

### **Psychomotor goals**

At the completion of this module the student-instructor should be able to:

- 20.1 Role play a front end assessment to identify and explore the causes of a problem requiring remediation

### **Affective goals**

At the completion of this module the student-instructor should be able to:

- 20.1 Value the need to assist student in becoming independent self-directed learners

### **Declarative**

- I. Why this module is important
  - A. Remediation is needed when students do not perform as expected in any of the three domains of learning
  - B. Students need learning strategies and skills for success in educational situations
    1. Instructors can assist students in developing these skills
  - C. Instructors need a systematic plan to determine what the problem is that is associated with the need for remediation
- II. What is remediation?
  - A. A deliberate educational activity designed to correct deficits identified during formal and informal evaluations
  - B. What causes the need for remediation?
    1. Failure of a student to perform as expected on cognitive, affective or psychomotor content
  - C. Remediation process follows a systematic plan
    1. Identify the problem
      - a. Evaluate possible causes for the problem
      - b. Identify where the deficits came from: student or educational program
    2. Retrain the student
    3. Re-evaluate the student
- III. Critical skills for student success

- A. Students need cognitive, metacognitive and motivational skills to adequately problem solve
- B. Strategies that lead to successful learning
  - 1. Interest and motivation
  - 2. Self-efficacy and self-management
  - 3. Adequate knowledge base
  - 4. Cognitive monitoring
  - 5. Attribution
- C. Interest and motivation
  - 1. Intrinsic motivation from within
  - 2. Extrinsic motivation from without
  - 3. Instructor should monitor for intrinsic and extrinsic motivators
    - a. Help students identify intrinsic motivators and recognize their value
    - b. Provide extrinsic motivators to student
- D. Self-efficacy and self management
  - 1. Encourage students towards independent learning by providing collaborative and self-directed learning opportunities in the classroom
  - 2. Contextual control
    - a. Provide students with control of their learning whenever possible
- E. Adequate knowledge base
  - 1. Students should work through each level of sophistication with each domain of learning to move towards metacognitive strategies
    - a. Instructor role:
      - i. Provide learning opportunities to best facilitate this
      - ii. Encourage independent and self-directed learning
  - 2. Metacognition: active monitoring, self-regulation and reflection of personal mental activities
    - a. Metacognition helps learner:
      - i. Analyze their own comprehension and needs
      - ii. Use instructional components according to analyzed needs
      - iii. Find hints for correct solutions to problems
      - iv. Actively problem solve
      - v. Transfer concepts to other contexts to further learning
- F. Cognitive monitoring
  - 1. Students need to be active readers, writers, planners and listeners
    - a. Instructors can facilitate the development of any skills that are lacking or inadequate
  - 2. Provide study strategies
    - a. Plan and organize study time
    - b. Steps to start and complete complex assignments
    - c. Previewing resources and identifying important topics
    - d. Comprehension of material
    - e. Use of mnemonics and other memory strategies
    - f. Highlighting and note taking
    - g. Active listening during lectures and discussions
    - h. Preparing for exams

3. Utilize a strategic process to facilitate learning
  - a. Strategic process goals
    - i. Regulate strategies used to develop self
      - a.) Understand personal learning style and preferences
      - b.) Observe strategies that enhance success
    - ii. Keep performance records
      - a.) For reflection and review of progress
    - iii. Evaluate progress
      - a.) Reflect upon successes
      - b.) Redirect as needed

#### G. Attribution

1. What does student attribute as the cause for failure?
  - a. Attribution plays a very important role in whether or not the student accepts responsibility for learning
    - i. Does the student think or feel they are a victim of circumstances?
    - ii. Does the student blame the instructor or program for their failure?
2. What does instructor attribute as the cause for failure?
  - a. Insufficient instruction
    - i. Correct with better designed strategies that target student learning styles and facilitate self-directed learning
  - b. Low expenditure of effort by student
    - i. Determine if student is willing to spend additional energy to learn
    - ii. Provide extrinsic motivation
  - c. Poor strategy for learning
    - i. Provide help with developing learning skills
  - d. Student's lack of ability
    - i. Consider this possibility after you have considered all other possible causes
    - ii. Prerequisites and developmental opportunities may help diminish the frequency of this as a cause of failure
    - iii. Development of inadequate or absent learning strategies may mitigate this as a cause

#### IV. The steps of remediation

##### A. Identify the problem

1. Front end assessment is crucial
  - a. If you jump to a solution before fully understanding the problem you may not have the correct solution
2. Ask the right questions
  - a. Was the problem with student's performance due to a problem with their education or training?
  - b. Did the student perform correctly previously?
    - i. No: it may be a knowledge deficit
    - ii. Yes: it may be a motivation deficit
  - c. Can you describe the problem?

3. Understand the interrelationship between education, performance, environment and needs
  - a. Complex relationship that may not be initially obvious
  - b. Take time to explore all areas thoroughly
- B. Identify where the deficits came from: educational program or student
  1. Look for attributions
    - a. Insufficient instruction
    - b. Low expenditure of effort by student
    - c. Poor strategy for learning
    - d. Student's lack of ability
- C. Retrain student
  1. Use the information gathered from the assessment of the problem to design a strategy for improvement
    - a. Social contracts are critical to successful remediation
      - i. Student agrees to work towards change
      - ii. Instructor agrees to help facilitate change process for student
  2. Help improve student learning strategies
    - a. Monitor student's progress in applying these new skills
  3. Provide correct instruction and adequate time for practice
    - a. Involve other members of the educational team
- D. Re-evaluate student
  1. Repeat remediation process until successful outcome is achieved or logical stop point is reached
    - a. Program guidelines, rules and regulations should address consequences for failure to perform at expected level following remediation
    - b. Students should have written documentation that is provided on first class session outlining expectations for success

### **Bibliographical References**

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- Mayer, R. E. (1998). Cognitive, metacognitive and motivational aspects of problem solving. *Instructional Science*, v. 26, number 1-2, 49-63.
- Robinson, D. G., & Robinson, J. C. (1996). *Performance consulting Moving beyond training*. San Francisco: Berrett-Koehler Publishers.