

## **Report II, Part 3**

### **Instructional Strategies**

#### **Structure and Rationale**

This module is a self-instructional lesson based on Richard Mayer's Designing Instruction for Constructivist Learning (SOI) theory. "The primary goal of this model is to foster knowledge construction through direct instruction." (Reigeluth, 1999, page 142) Material will be presented in a sequential format to guide the learner through the process of creating a healthy meal plan. The model is based on the assumption that learners learn best when they are actively constructing their knowledge. Mayer's design model is a well-designed task oriented instructional theory that includes transfer tests as well as retention tests. Keeping this in mind, in our instructional module, students will be faced with the task of developing a healthy meal plan. Students will construct their own knowledge as they perform transfer and retention tests. The instructor is a cognitive guide providing scaffolding and feedback throughout the module as needed.

#### **Media Selection**

Print media was chosen to implement this module based on the resources available. The classroom is limited in the number of computers so multimedia implementation would be difficult. Eighth grade students have the ability to manipulate a print self-instructional module based on their prerequisite skills.

#### **Instructional Sequence**

The learner will be informed of the prerequisite skills needed to complete this module. In this way the learner will decide whether or not they have the skills needed to proceed. Due to the fact that this module emphasizes performance, it is important that students follow each step carefully. The module is designed as a self-instructional unit where students proceed at their own pace. The sequence of the module will be a bottom to top, left to right approach given the task analysis chart. Subordinate skills and the coinciding step will be chunked together for the purpose of assessment.

#### **Pre-Instructional Strategies**

The instructional goal will be stated at the beginning of the module. The learner will be informed of the prerequisite skills needed to complete this module. As the students progress through the process of creating the daily menu, steps will be listed and put in bold face type to gain the students attention. The learner will be informed of the objectives through this means and by using questions to gain their interest. Students will read a story about two teenagers and their eating habits. Students can easily relate to the eating habits of the teenagers in the story. Since eighth grade students are self-centered, any time instruction can be related to their personal needs and interests they become highly motivated. Motivation will continue throughout the module by using colorful pictures and support resources. Students will receive feedback throughout the module with the use of encouraging phrases and pictures.

### **Information Presentation**

Information will be presented in an interesting, motivating format. Asking the students leading questions to stimulate their interest and thinking will address the objectives. We will use specific colors throughout the module to help in the presentation and guide the learner. For example, all directions will be black, information will be blue, and answers will be in red. At the beginning of each chunk, to teach the objectives, the student is given information to complete the tasks that follow. Objectives that are rules have an example for the learner as well as activities to help the learner discover the rules. For example, when the student is asked to label the Food Guide Pyramid and state the correct number of servings in each section, they are asked to locate a picture of the Food Pyramid and transfer the information on to their worksheet. The objectives that ask students to identify foods from all the food groups into their correct category are chunked together in this module. Students are given information about serving size and immediately are asked to practice this objective. Students are also given information on the difference between size and volume of particular foods that they are asked to identify for retention purposes. The daily menu the students create is used with a number of objectives: listing foods in the correct group, proper number of daily servings, serving sizes, and readjustment of their menu to meet the Food Guide Pyramid recommendations.

### **Learner Participation**

Activities will be performed throughout the module to be sure that the students are mastering the objectives covered. For example, students will be given a blank chart of the Food Guide Pyramid. Students will be asked to identify the sections of the Pyramid and record the number of servings that is recommended for each section. Students will be directed to the answer key to self-check the design of their chart.

### **Testing**

Prerequisite skills will not be tested. Students will be asked at the beginning of the module if they have the prerequisite skills of single digit addition and subtraction as well as the ability to discriminate between food and non-food items. Testing of these skills will not be necessary because they are very basic and familiar to eighth grade students. A pretest will be administered at the beginning of the module covering the information stated in objectives. The posttest will be administered at the end of the module. It will parallel the pretest along with a performance task.

### **Follow-Through Activities**

Students will be asked to look at their food log that they kept for three days prior to this instruction. They will be asked to evaluate their daily meal plans to see if they meet the Food Pyramid guidelines. If their meal plan did not meet the guidelines they will be asked to adapt their meal plan accordingly. Students will also be asked to evaluate a teenagers diet using the knowledge and skills that they learned in this module.