Using Videos and the ChemSource Skill Inventories for Assessment of Teaching

Mary Virginia Orna
College of New Rochelle, maryvirginiaorna@gmail.com
Using Videos and the ChemSource Skill Inventories for Assessment of Teaching
Mary Virginia Orna, Patricia Smith

• DVD 1: Classroom Instruction (Episodes 1-7)
• DVD 2: Classroom Instruction (Episodes 8-10); Mathematical Problem Solving (Episodes 11-14)
• DVD 3: Laboratory Instruction (Episodes 15-21)

• 5+ hours of professional videotapes of exemplary and non-engaging behaviors
• High school teachers videotaped on location
• Models general and science-specific teaching skills
• Includes episodes by several different teachers to model variety in teaching a given topic
• Accompanying User’s Guide enables self evaluation and inservice/teacher development programs & for science methods courses

At the end of this workshop, you will be able to...

• Identify the qualities for effective teaching in several settings
• Use a Skills Inventory Rubric to evaluate classroom behavior
• Plan the use of the Inquiry Rubrics included in this Workshop and others on the website for self-evaluation or evaluation of practice teachers

General Science Teaching Skills

• A. Beginning the Unit
• B. Conducting the Unit
• C. Ending the Unit
• D. Mathematical Problem Solving
• E. Pre-Laboratory Instruction
• F. Supervising Laboratory Instruction
• G. Post-Laboratory Instruction

Specific Science Teaching Skills

• 1. In-Depth Content
• 2. Safety in Lab and Classroom
• 3. Organization and Management
• 4. Pacing of Instruction
• 5. Motivating Students
• 6. Enhancing Student Self-Esteem
• 7. Obtaining Feedback
• 8. Questioning
• 9. Awareness of Rote vs. Real Learning
• 10. Decision Making and Role Playing
• 11. Peer Learning
• 12. Using Applications
• 13. Reinforcement and Review
• 14. Providing Feedback and Informal Assessment
• 15. Nature of Science
Specific Science Teaching Skills

• 16. Identifying Preconceptions and Preventing Misconceptions
• 17. Using Demonstrations
• 18. Using Models and Analogies
• 19. Using Discussions
• 20. Computers in the Laboratory and Classroom
• 21. Using Audio-Visual Resources

Science Teaching Skills (Skills Inventory)

• Look at your handout
• Each skill has an explanatory paragraph and an accompanying set of behaviors
• Each behavior can be evaluated using the rubric on the right-hand side of page
• You have one skill to evaluate while viewing the following video
• Read the behaviors carefully first

After the Episode

• Look at your evaluations and make a summary
• How do you feel you could use these skill sheets in your own setting?
• Keep in mind that you can make your own videos for self-evaluation or for peer evaluation

Going Further

• Mary Virginia Orna
  – maryvirginiaorna@gmail.com
  – Email me if you have any questions
  – www.maryvirginiaorna.net
  – All the handouts and PowerPoint slides for a complete workshop are on my website under “Hadassah College Workshops;” there are other resource materials there too
  – www.chemsource.info
  – Go here for more information on ChemSource; also an order form ($25.00)