

HOW TO BUILD A BETTER LESSON by Dr. Jane E. Pollock

Chpt. 3, *Improving Student Learning One Teacher at a Time* (ASCD, 2007), Chpts. 3,4,and 5 *Improving Student Learning One Principal at a Time* (ASCD, 2009)

Components of the Lesson	Chapters from Classroom Instruction that Works	What we are trying to get the brain to do – the neuroscience of the brain	The Nine Effective Strategies the Teacher should use during this component of the lesson (from Classroom Instruction that Works)	Learning Strategies We need to teach our students <i>Each of these thinking skills requires a process for students to learn to organize and reorganize information in order to retain it longer and use the information to construct new ideas.</i>
G: Goal Teacher shares the goal of the lesson	Chapters 8 and 4	We are trying to get the brain to focus on the goal; reduce impulsivity and stick to a task	Setting Objectives and Providing Feedback Reinforcing Effort and Providing Recognition	<p data-bbox="1465 483 1829 508"><u>Identify Similarities and Differences</u></p> <p data-bbox="1465 513 1944 565">Compare: describe how things are the same and different</p> <p data-bbox="1465 570 1995 621">Create an Analogy: substitute something familiar for something difficult</p> <p data-bbox="1465 626 1902 651">Classify: group similar items into categories</p> <p data-bbox="1717 667 2007 708" style="text-align: right;">➔</p> <p data-bbox="1465 776 1713 800"><u>Use Analysis Techniques</u></p> <p data-bbox="1465 805 1965 857">Analyze Perspectives: consider different points of view</p> <p data-bbox="1465 862 1995 914">Create an Argument or Persuade: to make a claim or convince others to change their viewpoints</p> <p data-bbox="1465 919 1932 971">Analyze for Logical Fallacy: articulate errors in thinking</p> <p data-bbox="1465 976 1965 1027">Analyze as a System: consider change to make an improvement</p> <p data-bbox="1717 1044 2007 1084" style="text-align: right;">➔</p> <p data-bbox="1465 1125 1776 1149"><u>Generate and Test Hypotheses</u></p> <p data-bbox="1465 1154 2007 1179">Make a Decision: select from seemingly equal choices</p> <p data-bbox="1465 1183 1982 1235">Solve a Problem: negotiate obstacles to find a good solution</p> <p data-bbox="1465 1240 1982 1292">Investigate: resolve issues about which there are contradictions (projective, historical, or definitional)</p> <p data-bbox="1465 1297 1957 1349">Invent: develop original products or processes to meet specific needs</p>
A: Access Prior Knowledge Teacher accesses students' prior knowledge	Chapters 10, 6, 2, and 7	We are trying to get the brain to associate; make analogies and compare	Questions, cues and advance organizers Nonlinguistic representations Identifying similarities and differences Cooperative Learning	
N: New Information Teacher shares new information; new information is practiced	Declarative and Procedural Knowledge Chapters 3, 5, and 11	We are trying to get the brain to gather and organize information	Summarizing and note taking Homework and Practice	
A: Application of New Information Apply what was learned	Application of Declarative and Procedural Knowledge Chapters 2, 9, and 10	We are trying to get the brain to categorize; analyze perspectives, construct arguments; extract themes, deduce, analyze for logical errors, systems analysis, investigate; make decision, solve problems, create a test and invent; follows complex directions	<p data-bbox="957 906 1318 930"><u>Identify Similarities and Differences</u></p> <p data-bbox="957 935 1381 959"><u>Cues, Questions and Advanced Organizers</u></p> <p data-bbox="957 964 1268 989"><u>Generate and Test Hypotheses</u></p> <p data-bbox="957 993 1199 1018">Homework and practice</p>	
G: Goal is revisited Teacher reminds the student about what to “click and save” and provides feedback to the student	Chapters 8 and 4	We are trying to get the brain to “put a tab on the folder”, make a connection to the goal and retain the information learned	Setting Objectives and Providing Feedback Reinforcing Effort and Providing Recognition Homework and practice	

Steps in the Critical Thinking Skills

<p><u>Identify Similarities and Differences</u></p>	<p>Compare: describe how things are the same and different</p> <ol style="list-style-type: none"> 1. Select items to compare 2. Select characteristics on which you want to base your comparison of the items 3. Explain how the items are similar and different with respect to the characteristics 4. Summarize your findings and draw useful conclusions 	<p>Create an Analogy: substitute something familiar for something difficult</p> <ol style="list-style-type: none"> 1. Identify a situation or basic information 2. State the basic information in general terms 3. Identify new difficult information in terms of the familiar situation (general terms) 4. Use the similarities and differences as a platform for new understandings 5. Summarize new explanation (s) about the difficult information 	<p>Classify: group similar items into categories</p> <ol style="list-style-type: none"> 1. Identify items to classify 2. Select an item and identify other items like it to combine into a group based on attributes 3. Choose a rule that describes membership in the category 4. Repeat with another item until all items are classified 5. If necessary, combine or split groups into smaller categories and state the rule for membership 6. Reclassify to consider different patterns and summarize findings 		
<p><u>Use Analysis Techniques</u></p>	<p>Analyze Perspectives: consider different points of view</p> <ol style="list-style-type: none"> 1. Identify an issue 2. State a perspective, the logic, and evidence that support it 3. State a different perspective with the logic and evidence that support it 4. Repeat 5. Summarize the similarities and differences among viewpoints 	<p>Create an Argument or Persuade: to make a claim or convince others to change their viewpoints</p> <ol style="list-style-type: none"> 1. Make a claim 2. State evidence about the claim 3. Elaborate on the evidence by providing detail, both opinion and factual information (4. To persuade, use techniques to sway the audience to accept the claim) 	<p>Analyze for Logical Fallacy: articulate errors in thinking</p> <ol style="list-style-type: none"> 1. Describe how information being presented is intended to change your behavior or beliefs. 2. Identify claims or tactics that are unusual 3. Ask for clarification or more accurate information 4. Summarize the errors and resolution 	<p>Analyze as a System: consider change to make an improvement</p> <ol style="list-style-type: none"> 1. Explain a situation as a system – the parts and the functions of each part 2. Describe how the parts affect each other 3. Identify one part, change it, and explain how it affects the rest of the system 4. If possible, make the change, and show the results to draw conclusions 	
<p><u>Generate and Test Hypotheses</u></p>	<p>Make a Decision: select from seemingly equal choices</p> <ol style="list-style-type: none"> 1. Identify a situation that requires a choice 2. Identify different choices or alternatives 3. Hypothesize the best criteria important to the situation 4. Assign each criterion a value score 5. Score the extent to which each alternative possesses each criterion 6. Multiply the criterion scores by the alternative scores 7. Identify the alternative with the highest score 8. Summarize the result or justify why not to elect that choice 	<p>Solve a Problem: negotiate obstacles to find a good solution</p> <ol style="list-style-type: none"> 1. Identify a goal 2. Describe a barrier that prevents you from achieving the goal, causing the problem 3. Hypothesize or generate solutions for overcoming the barrier 4. If possible, test a likely solution (s) 5. If necessary, test another hypothesis, and summarize how to resolve the situation 	<p>Investigate: resolve issues about which there are contradictions (projective, historical, or definitional)</p> <ol style="list-style-type: none"> 1. Describe a hypothetical, past event or concept to be explained 2. Explain what is already known or agreed upon 3. Explain the confusion or contradiction 4. Hypothesize a plausible explanation about the confusion or contradiction 5. Summarize findings 	<p>Invent: develop original products or processes to meet specific needs</p> <ol style="list-style-type: none"> 1. Describe a situation that needs improvement 2. State the purpose or goal from different perspectives 3. Hypothesize specific needs and restrictions for the invention 4. Develop a model, sketch, or outline 5. Seek feedback on the idea or product 6. Improve the idea or product by editing or revising 7. Publish or produce the idea or invention 	<p>Experiment or Survey: test explanations for things we observe</p> <ol style="list-style-type: none"> 1. Describe an event or situation 2. Explain what you observed 3. Based on your explanations, make a prediction or hypothesis 4. Create an experiment or survey to test your prediction 5. Explain the results of your experiment or survey 6. Summarize, and if necessary, revise the explanation