

# RESEARCH-BASED EFFECTIVE TEACHING PRINCIPLES FOR ALL EDUCATORS

1. Students learn more when they are actively engaged in instructional tasks.
2. High success rates correlate positively with student learning outcomes.
3. The more content covered, the greater the potential for student learning.
4. Students achieve more in classes where they spend most of their time being directly taught by a teacher.
5. Students become independent, self-regulated learners through instruction that is deliberately and carefully scaffolded.
  - *Teachers provide support and structure, then systematically remove guidance and increase student competence.*
6. The critical forms of knowledge (declarative, procedural, and conditional) must be addressed in order for students to become independent, self-regulated learners.
  - *Declarative - factual information*
  - *Procedural - how to use the knowledge in specific ways*
  - *Conditional - knowing when and where to apply the knowledge*
7. Learning is increased when teaching is presented in a manner that assists students in organizing, storing, and retrieving information.
8. Strategic instruction will help students to become more independent, self-regulated learners.
  - *Strategic instruction is designed to teach students how to apply techniques, principles, or rules in order to solve problems and complete tasks successfully and independently.*
9. Students can become more independent, self-regulated learners through instruction that is explicit.
10. By teaching sameness both within and across subjects, teachers promote the ability of students to access knowledge in any problem-solving situation.
  - *Teaching sameness is linking a single concept with many ideas and providing students with numerous examples to promote generalization.*



From: Ellis, E. and Worthington, L. (1994).  
*Research Synthesis on Effective Teaching Principles  
and the Design of Quality Tools for Educators.*  
National Center to Improve the Tools of Educators,  
University of Oregon



Pennsylvania Training and Technical  
Assistance Network (PaTTAN)  
Pennsylvania Department of Education

For more information, contact:

**PaTTAN – Harrisburg Office**  
717-541-4960 or 800-360-7282 (PA only)

**PaTTAN – King of Prussia Office**  
610-265-7321 or 800-441-3215 (PA only)

**PaTTAN – Pittsburgh Office**  
724-443-7821 or 800-446-5607 (PA only)

[www.pattan.k12.pa.us](http://www.pattan.k12.pa.us)