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WHAT IS PRODUCTIVE INSTRUCTION?

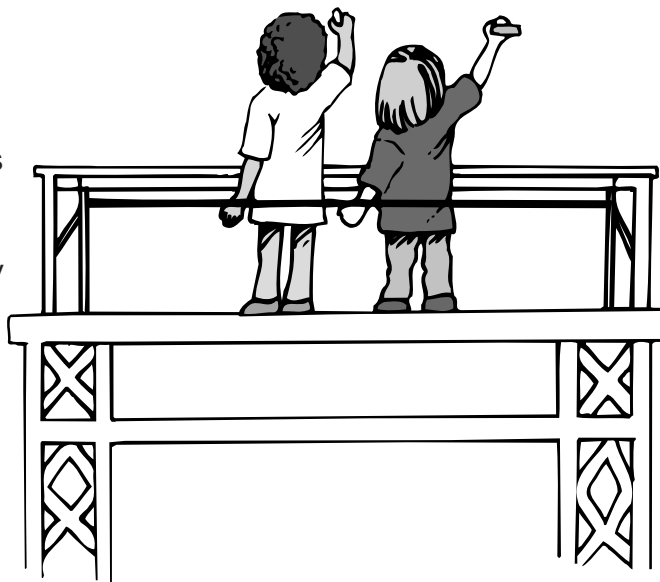
In the 1930s and 1940s, the Project Method, developed by William H. Kilpatrick, an educator at Teachers College, Columbia University, was the educational rage. Students and teachers were engaged in lengthy, complex projects that demanded complete integration of the curriculum. Then, for almost four decades, the curriculum became fragmented, textbook-dependent and largely devoted to basic skills. Today, with a more ethnically and culturally diverse school population and a more precise understanding of cognition and creativity, the pendulum is swinging back toward projects and integrated units of study which are the backbone of productive instruction.

In productive instruction, students are engaged in meaningful, well-planned, integrated learning activities which are frequently based on student interests and which may span several subject areas. Rather than a cursory dash through high points of a topic, students explore in depth for extended periods of time. Written and oral communication are emphasized in every area of study, while lectures and worksheets are of minimal importance.

As students move through these learning activities, they apply previously acquired knowledge and principles they have mastered to construct new knowledge in the form of products. By demonstrating their thinking and creativity in a concrete format, students become producers of their own knowledge and can take pride in the success and originality of their constructions.

In productive instruction, the teacher acts as a facilitator who guides student discoveries. The role of guiding students in a purposeful effort to produce their own knowledge is frequently a new one for teachers. Most of us learned to teach by thinking of students as little “sponges.” As long as we poured on the knowledge, students would soak it up. Productive instruction has inspired a new metaphor for teaching and learning—scaffolding. This term has become associated with productive instruction because of its roots in cognitive theory.

If you think of scaffolding in its literal sense—a wood or metal framework that supports people working on a construction project—the suitability of the metaphor becomes clear. In productive instruction, teachers are the scaffolding which supports the students’ construction of new knowledge. As a concept is built and reinforced in the mind of the learner, the scaffolding can slowly be dismantled. When the project or knowledge is complete or fully formed, it stands on its own. Scaffolding is no longer necessary.

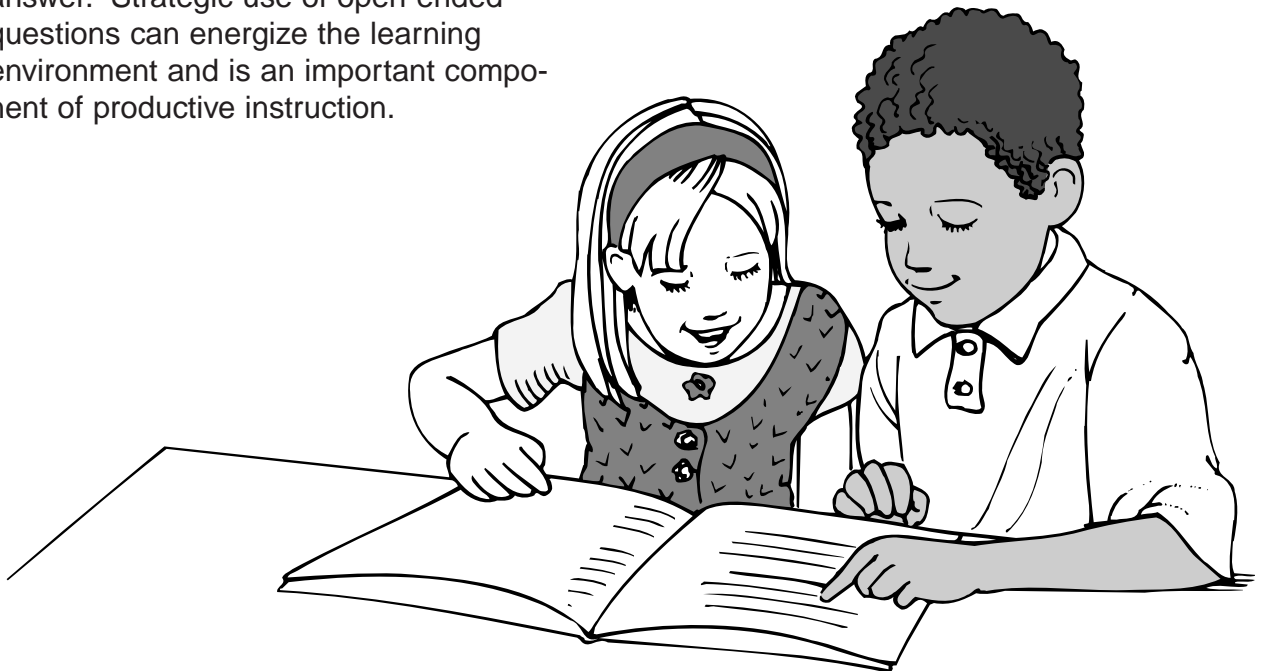


The scaffolding process begins with the identification of a concept or idea that the learner has mastered. This concept or idea is then related to the concept under development, such as relating addition to multiplication. By discussing this relationship in a variety of ways, the learner is able to hook into the new information. By introducing small pieces of information or a few new parts of the concept at a time, learners can master new ideas and terms before more are added.

Teachers can often facilitate guided discovery through open-ended questioning, which encourages students to use higher-order thinking skills and to apply what they already know. Such questions have many possible answers. The student, however is often required to justify the answer, or in some cases, conduct an experiment to prove the answer. Strategic use of open-ended questions can energize the learning environment and is an important component of productive instruction.

Peer coaching is another valuable component of productive instruction. In real life, it is often our peers who help us acquire new skills. It is the same for children. By pairing two learners, some of the anxiety caused by taking on a new task can be diffused. The idea is to invite a student who has mastered a concept to coach or assist a student who is still a novice. A peer coaching contract can be used to facilitate such arrangements. A sample contract is provided on page 125.

The following chart reviews and clarifies the distinctions between traditional and productive instruction. As educators prepare students for “real life” in the twenty-first century, productive instruction will undoubtedly play a large and meaningful role.



COMPARISON OF PRODUCTIVE AND TRADITIONAL INSTRUCTION

PRODUCTIVE INSTRUCTION TRADITIONAL INSTRUCTION

Teacher is a guide and facilitator.	Teacher is often a dispenser of facts.
Student goes beyond fact memorization by applying knowledge.	Student is required to memorize and recite facts.
Subject areas are integrated.	Subject areas are isolated.
Students explore subjects at great depth and for an extended period of time.	Students skim subjects briefly and move on.
Students set goals for what they will learn and produce.	Students respond to specific, measurable objectives pre-set by the teacher or curriculum.
Student interest and teacher expertise shape the curriculum.	Curriculum is developed by experts outside of the school.
Rewards come as students use their individual gifts and talents to produce new knowledge.	Rewards come from grades.
Tasks, projects and prompts frame the instruction.	Worksheets and lectures frame the instruction.
Questions are frequently open-ended.	Questions frequently have one correct answer.
Written and oral communication is emphasized in all areas.	Writing is limited to language arts.
Block scheduling and flexible time periods for research and projects.	Separate periods for separate disciplines.