There are a variety of effective instructional models other than that of Madeline Hunter.

Planning Models: Two Alternatives to Hunter

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Introduction

During this current period of reform many are seeking simple solutions to the complex variables affecting qualitative improvements in education. Among the solutions is an increased emphasis on mastery learning principles which essentially have educators identify a specified set of objectives and then organize instruction and curriculum materials to teach the objectives. While mastery learning has been demonstrated to be effective (Bloom, 1984), the effects are most notable on criterion-referenced tests. Slavin (cited in "Education USA," 1987) reported that mastery learning gains have not generalized to increased performance on standardized achievement tests. Thus, while students may master specified objectives, they may be missing learning opportunities that lead to broader understanding and more general application.

Madeline Hunter developed a mastery learning model (Hunter, 1982) which has been adopted and adapted by many local school districts. On a statewide level, Texas has been developing a teacher-appraisal system based on Hunter's model. Training sessions for Texas teachers and administrators are well underway.

While Hunter's model has been enthusiastically received by some educators, the model has not proved to be the panacea of reform. For example, the Beginning Teacher Evaluation Study revealed that there were no significant differences in student achievement between students taught by teachers receiving prolonged inservice training in the Hunter model and students in classrooms led by teachers using no specific model (Stallings, 1987). Similar results from an East Coast study were reported by Donovan, Sousa and Walberg (1987). Empirical data regarding the effectiveness of the Hunter model suggests that the model's effectiveness is questionable.

Reformers interested in mastery learning as a technologically efficient way to achieve desired improvements are myopic. Reading researchers have indicated that the best reading approach isn't one specific teaching method. Rather, the best approach is a combination of several methods. Similarly, the best way to teach may not be one specific model but a combination of several models. Lee Shulman (1987) described an attempt to evaluate a lesson presented by Secretary of Education William J. Bennett about the Federalist Papers. Bennett's lesson was well presented, but it could not be evaluated using the Hunter model. Perhaps Shulman discovered what many Texas teachers have discovered through their attempts to change their teaching styles: The Hunter model was not appropriate for all teachers in all situations.

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Two Alternatives

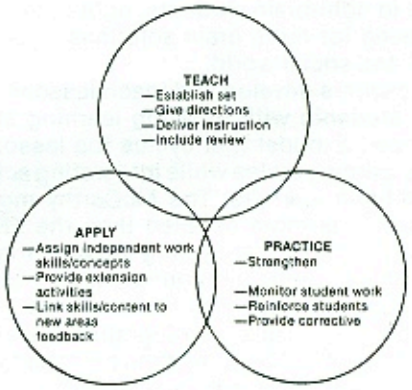
There are alternatives to mastery learning and the Hunter model. Two alternative models will be described in this section. The models are not presented as either-or options; they are alternatives to be used when appropriate and to provide educators with additional variety to meet the multidimensional needs of their students.

Teach-Practice-Apply. Cooper, Warncke, Ramstad and Shipman (1979) described an approach to teaching reading in which teachers taught a skill, provided students with opportunities to practice the skill, and then helped students apply the skill to new levels and in different contexts. The Teach-Practice-Apply (TPA) model is an attractive alternative to a mastery learning model because of the message it connotes. Rather than suggesting an efficient, teacher-directed, somewhat engineered approach to classroom instruction, the TPA model encourages teachers to provide ample time to not only accommodate existing student behaviors to new levels of sophistication, but to provide time and opportunities for students to assimilate, or strengthen, the newly learned information.

The TPA model essentially requires teachers to help students learn new information and skills during the teach portion. The teach portion may be deductive or inductive, and inductive teaching appears to be fostered more readily by the TPA model than by the Hunter model. Practice in the TPA model and Hunter model are similar. Teachers are encouraged to provide practice activities that relate specifically to the material developed in the teach portion of the lesson. They are also encouraged to actively monitor students during the practice period.

Sadly, application opportunities are non-existent in most learning settings. The TPA model addresses this deficiency by including provisions for applying the material to different situations. This enables teachers to enrich each lesson as well as involve more divergence and creativity in their teaching. The TPA model is illustrated in Figure 1.

Figure 1
The Overlapping Nature of Teach-Practice-Apply



Reinhartz and VanCleaf (1986)

Reinhartz and Van Cleaf (1986) expanded application of the TPA model beyond use in reading classrooms. Their description illustrates how the model may be used in a variety of subject areas using a variety of teaching strategies. Teachers can use a variety of inductive and deductive strate-

gies within the context of the teach, the practice or the apply portions of a lesson. For example, an inductive concept-attainment strategy or moral-dilemma strategy may be presented during the teach portion of a lesson. Discussions could follow as a Socratic type of practice for the material developed in the teach. Finally, students might develop their own concept-attainment activities or moral dilemmas as the apply activity. This type of lesson would involve students in student-centered learning while developing the specified objective of the lesson.

Van Cleaf and Reinhartz (1987) provided data indicating that college students enrolled in undergraduate social studies methods courses developed significantly more student-centered (inductive) teaching activities, identified significantly fewer instructional objectives and taught the fewer objectives significantly more thoroughly when using the TPA model. The TPA model has also been integrated into the Scott, Foresman elementary reading series. The model appears to encourage teachers to develop divergence in their professional skills rather than the convergence connoted by the way in which the Hunter model is often implemented, and, therefore, has merit as an alternative to the Hunter model.

The 4Mat System. Bernice McCarthy (1981, 1985) developed the 4Mat System as a means of helping teachers plan lessons responsive to the learning style differences of their students. Her model is premised on four learning styles described by David Kolb (1976) and the left-right hemispheric cognitive styles of students.

Kolb described learning as a combination of two dimensions: how individuals perceive information and how they process information. Each occurs along a continuum. The perceiving continuum ranges from sensing and feeling at one end to thinking about information at the other end of the continuum. The processing dimension ranges from watching and reflecting to actively doing as ways to learn. Learning style is described in terms of individual preferences and strengths relative to the perceiving and processing dimensions.

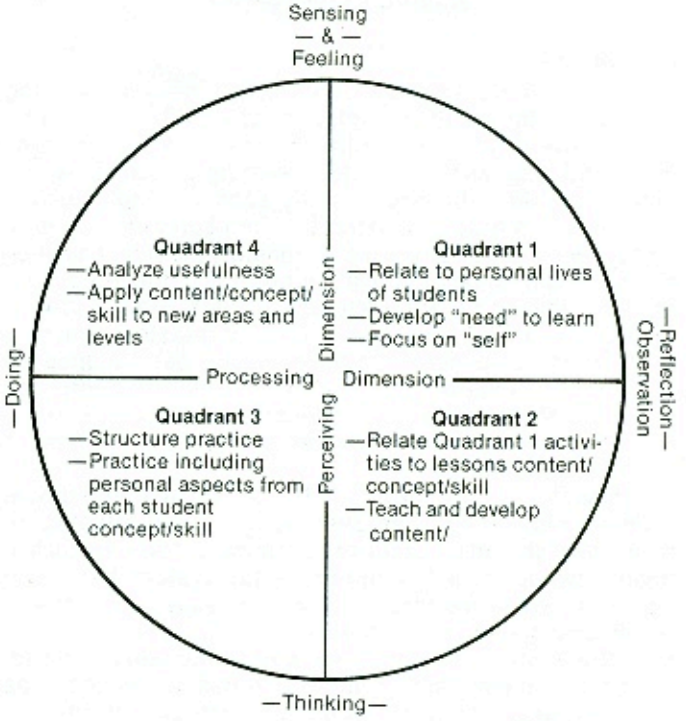
Brain dominance, or hemispheric specialization, is a relatively new way of looking at the manner in which people learn. It is hypothesized that while individuals use both hemispheres, they usually demonstrate preferences for behaviors associated with one hemisphere (Levy, 1983). The importance of learning style relative to hemispheric preference is accentuated by observations that the school curriculum is a left brain curriculum (Telzrow, 1981) and, therefore, not amenable to right-brain students, right-brain subject areas and the need for right- brain solutions to problems in our corporate and social world.

To help teachers develop and teach lessons that meet the needs of students with differing learning styles, McCarthy developed a model that cycles the lesson through each of Kolb's learning styles while integrating activities for left- and right-brain learners. The McCarthy model, illustrated in Figure 2, is more detailed than the TPA model. Complete lessons consist of cycling learners through four quadrants. Teachers begin with quadrant 1 by relating the topic of the lesson to students' personal lives and their need to learn the information . . . integrating the information with a focus on the "self." Lessons then proceed to quadrant 2 in which the concept is formed and developed, somewhat like the teach in the Hunter and TPA models. The third quadrant of the lesson provides an opportunity for practice. Practice should relate specifically to the material taught and it should include an opportunity for each student to add something personal to the practice by relating the material to their own lives. The final quadrant of McCarthy's 4Mat model requires students to integrate the material learned and practice by applying the material to a new and more complex situation.

The McCarthy model is being tested in 22 settings and data should be published soon. While McCarthy's 4Mat model is more detailed and prescriptive than the TPA model, it has potential as a useful alternative for teachers.

The comments of a junior high math teacher who planned and delivered lessons using the McCarthy 4Mat model aptly describe the strengths and weaknesses of the model. She stated that teacher planning took longer, the use of manipulatives was required, students enjoyed the lessons and they seemed to learn the concepts better than when engaged in traditionally prepared lessons.

Figure 2
A Conceptualization of 4Mat Model*



*Adapted from McCarthy (1981 & 1985) and Kolb (1976).

Sailing Ahead

A teacher leading students through the curriculum is somewhat like a sailor sailing a sailboat. The sailor uses control devices on the sailboat such as the angle of the sail, depth and angle of the keel and the direction of the rudder to respond to external variables affecting the sailboat's course. The external variables affecting the sailor's course include the wind velocity and direction, water current and height of the waves. An effective sailor is capable of planning a course and using the tools to react to the external variables.

Teachers also have tools they use to navigate their students through the curriculum and the school year. Teaching models are one of the tools that the professional teacher can use to achieve success. Limiting teachers to the use of one model is similar to limiting the sailor. The sailor cannot navigate the sailboat effectively unless the necessary devices are available. Remove the sail, the keel or the rudder and the sailboat begins floating with the wind. The boat may remain afloat, but direction and purpose are inhibited. Forc-

ing teachers to use one model may keep the classroom afloat, but may not enable teachers to maneuver students through the year and the curriculum. Sailors and teachers are alike in another respect. They often have different purposes for their actions. At times each must set a direct, fast course. At other times each may decide to take an enriching, scenic course. And there are times when there is not a specific course, they are sailing to practice certain skills or procedures. Limiting teachers to a model that connotes speed and efficiency discourages planning for other types of learning.

Teachers' planning and classroom behaviors are affected by the models they are expected to use. Forcing teachers to use one model will restrict their ability to respond to the needs of their students and the conceptually different structures of the curriculum subjects. The practice of restricting teachers to the use of the Hunter model is questionable because the model lacks empirical support. Teachers are professionals. They need more tools and a greater number of options to meet challenges in their classrooms. The TPA and 4Mat models have promise as alternatives for the professional educator.

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