

# An Examination of Direct Instruction

Active, teacher-centered instruction is not necessarily effective with all students for all purposes.

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Recent breakthroughs in research on teaching have produced mild euphoria over the potential benefits of two new concepts described by Rosenshine and Berliner (1977): "academic engaged time" (AET) and "direct instruction" (DI). Direct instruction, which is typically used with a large group, is teacher-directed, structured, and focused on academic content. Academic engaged time is the "time spent by a student engaged on a task in which few errors are produced, and where the task is directly relevant to an academic outcome" (Denham and Lieberman, 1980, p. 75).

Studies indicate that students who spend more time engaged in academic learning score higher on reading and math achievement tests (Fisher and others, 1979). Concurrently, teachers from classrooms demonstrating higher reading and math achievement scores exhibit the behaviors associated with direct instruction (Brophy and Evertson, 1976; Denham and Lieberman, 1980). Brophy (1979) summarized the critical aspects of direct instruction as described by Rosenshine:

Teachers (1) focus on academic goals; (2) promote extensive content coverage and high levels of student involvement; (3) select instructional goals and materials and actively monitor student progress; (4) structure learning activities and include immediate, academically oriented feedback; (5) create an environment that is task-oriented but relaxed (p. 1).

Given the present public demand for accountability, some local school administrators have already assumed the paradigm in Figure 1 on page 68.

In some districts, teachers have been advised to begin "direct teaching," and supervisory procedures for monitoring

their behavior are under way. Such interpretation and implementation of teaching research demands critical scrutiny by practitioners and researchers alike.

This paradigm, which in its simplicity looks so inviting, is based on at least three underlying assumptions. They include the philosophical one that it is the teacher's responsibility to maximize AET; the pedagogical one that there is a way to increase AET that will be effective for all teachers and students; and the psychological one that the teacher's behavior is the primary motivating factor in a student's engagement in a task. All three assumptions can be challenged.

## The Philosophical Assumption

Research has not shown that AET increases achievement test scores of all students. Even if it did, there would be important reservations about the extent to which teachers should promote AET. Those reservations concern the purpose of schooling, the importance of the affective component of learning, and optimal levels of AET.

Tomes have been written regarding the multifaceted purposes of education. Almost always some *balance* in purposes is espoused. Whether one talks of physical, intellectual, and emotional growth; social, personal, and technical learning; cognitive, affective, and psychomotor development; or wisdom, character, and personal integration, the focus is seldom

one-dimensional (Weller, 1977).

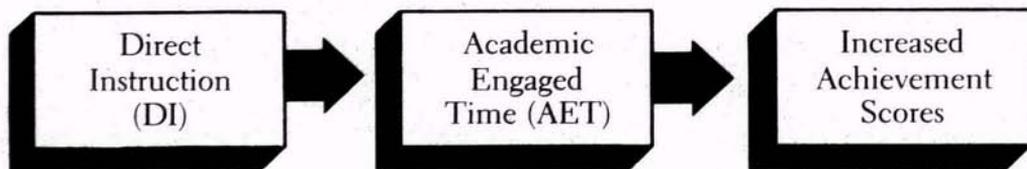
Recent emphasis on achievement test scores as indicators of learning, while understandable, may be short-sighted. Guerriero's (1980) survey of school priorities of Pennsylvanians demonstrated that while "there is considerable support for students learning the 'basics,'" there is also evidence "that health, societal responsibility, and self-esteem are considered as important as basic skills" (p. 344).

Good and others (1975, p. 78) acknowledge that "extreme emphasis on one set of goals would probably interfere with progress towards the other type of goal." If learning needs to be personal to foster significant behavioral change (Patterson, 1973), then Frymier's (1981) argument about the meaningfulness of tasks is important. He suggests that learning takes more than time on task—that it requires making a connection between what students know, feel, and believe and the content they are "learning." For example, emphasizing certain skill components that are necessary for decoding and phonetic analysis cannot be seen as the primary purpose of reading even if those skills are presently emphasized on achievement tests.

It is unclear, even if AET were a chosen goal, how much AET is enough. Rosenshine recognizes that we do not know optimal levels of AET for various ability youngsters; and Muir, a teacher who attempted to maximize AET in her classroom, speculates about the possibility of too much AET (see Denham and Lieberman, 1980). While few educators would question the importance of students spending significant time on task, the serious question remains: how much time on what tasks?

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Figure 1. Paradigm of Direct Instruction



### The Pedagogical Assumption

If teachers' use of DI increases student AET, we must ask why. Closer analysis of the components of DI and AET may explain the connection. According to Rosenshine and Berliner (1977), the two indicators of AET are, the *opportunity* for students to learn criterion material and the pupil's attention or *engagement* in the task. The DI model includes two components—one managerial and the other pedagogical. The managerial dimension emphasizes effective discipline techniques, thorough organization, and steady pacing. Effective management skills contribute to a student's opportunity to learn. Good classroom management requires a well-prepared, organized teacher who limits disruptions and distractions and thereby allows more time and opportunity for learning tasks (Emmer and Evertson, 1981). Many of the observed DI teachers were described, also, as having a strong academic orientation and high expectations of their students' learning abilities (Denham and Lieberman, 1980). Research suggests that both factors, role definition and teacher expectations, may substantially affect what teachers attempt to accomplish with their students. It appears that the teachers with well-defined, high expectations and strong management skills are able to increase learning opportunities.

The pedagogical dimension of DI includes large-group teaching with highly teacher-directed comments, questions, and goals. While this approach may "engage" some students, it may be dysfunctional for others. Brophy (1979) observes that DI may be needed most by anxious pupils who exhibit low ability or achievement motivation. Hunt's conceptual systems theory suggests that the amount of structure students need may depend on their own conceptual complexity (Joyce and Weil, 1972). Peterson (1979, p. 47) reviewed

studies suggesting that "high achieving, task-oriented students do worse in direct instruction than in less direct approaches," whereas low-ability students perform better in teacher-directed large-group situations. Peterson also found that students with a strong sense of locus of control do better or as well in "open" approaches as in direct instruction approaches, whereas students with an external locus of control are more productive with the direct approach. It is common, of course, to find both types of students in the same classroom. Teaching all children the same thing in the same way ignores important preferences in learning style that demand consideration (Dunn and Dunn, 1978).

"Engaged time" generally refers to time spent on activities in which students experience *high* success rates (see Denham and Lieberman, 1980, pp. 8–10). The dilemma of how to teach to a wide range of abilities so that everyone is concurrently successful contributed to the demand for individualized instruction. Joyce (1978) proposes that teachers use a variety of instructional models to most successfully meet students' needs and reduce boredom. He notes that "very few, if any, students can profit from only one model of teaching" and that "the power of any given model of teaching is relative to any other model (and affected by the style of the learner as well)" (pp. 12 and 17). Good and others (1975, p. 78) stress that while DI may be a good initial strategy for teaching low-ability students, "the strategy becomes less effective to the extent that it succeeds! That is, to the extent that teachers are able to maximize the learning progress of such students, the students' need for teacher dominated and structured learning experiences will gradually decrease."

Thus, the efficacy of the pedagogical component of DI may depend on a number of factors such as pupils' learn-

ing styles, cognitive complexity, ability level, and locus of control. To assume that all students will increase their AET through teacher use of DI is spurious.

### The Psychological Assumption

The DI-AET achievement scores paradigm suggests that teacher behavior causes AET. That may not necessarily be so. Doyle (1977) claims that certain student mediating responses might be tapped in a variety of ways: "Student response mechanisms, especially those engendered by classroom contingencies, actively mediate teacher effects and even appear to reduce the significance of variations in teacher behaviors" (p. 55). Doyle argues strenuously for perceiving the "reciprocal causality" of classrooms. Teachers not only affect what pupils do, but pupils have an impact on what teachers do. Copeland's (1980) study of student teachers demonstrates the very real bi-directional nature of classroom influences. The one-directional flow of the earlier paradigm needs rethinking.

To "engage" in a task, according to a dictionary, implies "to occupy or involve oneself; to take part; to be active; to attract and hold the attention; to employ the efforts and thoughts of; to keep busy." Therefore, time-on-task or AET requires that students *choose* to involve themselves in the tasks at hand. That choice may be affected by DI's strong management component or the pulls of teacher rewards and punishments. However, a student's choice of engaging in a task may also be influenced by a variety of other factors. Three seem especially important.

The affective climate of the classroom, including teacher-pupil relationships and peer influences, may have a strong impact on a student's willingness to become "engaged." The work of Aspy and Roebuck (1977) supports the notion that the quality of relationships makes a difference in student achievement, self-

confidence, and school attendance. An English study by Mortimore (Brandt, 1981) demonstrated that "a positive ethos" was one of the critical ingredients in more effective schools. Schmuck and Schmuck (1976) argue that the influence of peer values and relationships cannot be overlooked as strong motivational factors in learning. It is highly possible that students will choose to become more actively engaged in school work if they believe they can succeed, if they can work with respected peers, and if they are "invited" by someone they like (Purkey, 1978). Those affective variables are underestimated in the DI model.

Time-on-task may also be strongly influenced by the nature of the task itself. Students may choose to stay involved in tasks with high motivational pull or those which challenge students to involve themselves imaginatively. Three highly motivating approaches, for example, that are very different from DI are discovery learning, Synectics, and Lippman's "Stottlemeir" philosophy curriculum. All include high levels of student involvement, creative expression, and development of problem-solving skills. If the task taps interest and curiosity, then the teacher's instructional model may be of peripheral importance in fostering "engagement."

Finally, pupil characteristics that teachers have little control over may significantly affect one's choice to cooperate in school tasks. Parental expectations, individual cognitive and affective ability levels, individual perceptions of self and of the relevance of school work, leadership potentials, and secret aspirations are only some of the personal factors that influence pupils' behaviors. Knowing students well and seeking their input regarding instruction may be one way to tap these intangibles. If a teacher's goal involves a student's actively choosing to engage in a task, it would be foolhardy to believe that the teacher's instructional methodology is consistently the overriding factor affecting such a choice.

#### Implications for Action

While most researchers stress that DI seems most appropriate for "basic skills teaching" with certain students, some administrators do not distinguish among educational goals or clients. The message becomes translated: "Direct instruction is how children learn best." We learned in the 1960s that it was impossible, and I would argue undesir-

able, to create teacher-proof curricula. It is no more possible or desirable now to mandate an instruction-proof method or teacher-proof instruction. To mandate that is to treat teachers as objects rather than subjects and to ignore the relevance of their own professional judgments. Teachers are called on to make instructional choices that are situation specific, that is, choices dependent on the contextual variables embedded in the learning situation. Indeed, some teachers consider those choices the essence of their professionalism. To prescribe teacher methods and behavior without their knowledgeable assent and full participation invites resistance and assumes a simplistic view of innovations and learning interactions. One simple but true example of this occurred in a school district where administrators who had read the AET literature decided in mid-year to revoke afternoon recesses to allow for 15 more minutes of AET. The negative fallout of that decision made students and teachers less willing and able to "academically" focus on anything.

Roehler and Duffy (1981) claim that overemphasis on AET research may reduce the teacher to the role of technician. They claim that we need to look carefully at the quality of teaching and at the teacher's ability to assist and not just monitor pupils. This does not suggest ignoring research. Rather, it implies the necessity of having teachers study and question research findings, recognizing their strengths and limitations. Collaborative actions by teachers, administrators, supervisors, and researchers can offer varied perspectives to not only better understand what is found, but to reformulate some of the questions that need to be asked. Professionalism will be enhanced and teaching improved when teachers become knowledgeable about research findings, participants in research, and thoughtful research consumers. Their choosing to become "engaged" in what they do is essential for educational growth. Mandated instructional prescriptions will do little to foster that goal. □

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