

# LITERACY for a DIVERSE SOCIETY

*Perspectives, Practices, and Policies*

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# **19 Negative Policies for Dealing With Diversity: When Does Assessment and Diagnosis Turn Into Sorting and Segregation?**

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The perspective presented in this chapter derives from a series of policy research studies that we have conducted over the past decade aimed at understanding several different school placement practices: the identification of children as learning disabled, grade retention, and special kindergarten placements for unready children. How might the findings from our work and the respective research literatures inform the discussion in this volume, where the authors are interested in providing meaningful literacy instruction to a diverse population of students? Simply put, these placement practices can be seen as part of a recurring pattern in the U.S. educational system to deal with children who have trouble learning by assigning them to a special place where, despite good intentions, they receive systematically poor instruction that lessens their chances for important learning gains. As documented repeatedly in the preceding chapters, children from nonmainstream cultural and linguistic backgrounds are disproportionately the victims of these ineffective instructional practices.

The other contributors to the volume cite the detrimental aspects of current practice but focus primarily on the arguments for and substantive details of alternative approaches to literacy education. My purpose here is to elaborate more explicitly on the arguments for rejecting current practice. Why are present institutional arrangements harmful? Is there a theoretical basis for understanding the consistent lack of instructional benefits from special placements? I begin by reviewing briefly similarities in the research conclusions from the respective literatures on tracking, special education placements for the mildly handicapped, grade retention, and special kindergarten programs.

In my view each of these practices is based on a clinical or instructional model of assessment and diagnosis where the intention is to provide instructional help specifically targeted to the individual student's needs. Although the idea is to individualize instruction, negative side effects accrue as soon as students are removed from their peers and assigned to a special place to receive help. Hence the title of the chapter is meant to suggest that assessment and diagnosis turn into sorting and segregation when special help implies special placement. The special placement response is especially pernicious when it also means receiving dumbed-down instruction.

Why are students who are doing poorly in school consigned to bad instruction? In the second section of this chapter I examine the theoretical models and assumptions underlying current practice, characterizing them as old and outmoded psychological theories about human ability and learning. If we understand how the old theories were flawed, why practices derived from them don't work and are even harmful becomes transparent. It should also be clear, so long as they remain as the implicit theories guiding decisions, that new versions of the old practices will continue to be reinvented until the majority of practitioners make the same shift in perspective that has been made in the research community. Practitioners have the right to point out, of course, that the views they now hold were taught to them adamantly by a different group of researchers 10 to 40 years ago. Nonetheless we can now explain with a great deal of evidential support how it is that these old theories were mistaken.

My characterizations of "old" and "new" theories are especially intended for the uninitiated reader who might not know what to make of the constant references in this volume to Vygotsky or to the social construction of meaning. The authors in this volume all speak from the perspective of the new theories, which are based on the last 20 years of research in cognitive psychology, a resurgent interest in constructivist developmental psychology (from the work of Piaget and Vygotsky), and a broader framework for studying social, cultural, and linguistic influences on learning. The shared viewpoints among these authors are not the result of a selection bias on the part of the editor but are, in fact, representative of the larger educational research community—affecting all areas of subject-matter learning including math and science and early childhood education. In the concluding section of the chapter, I summarize the key features of the new theories of learning. Drawing from the work in the preceding chapters, I point to the kinds of changes in instructional practices that are likely to improve substantially students' ability to learn. In addition—because many of these ideas are as unfamiliar to teachers as the oddities of classroom discourse are to some groups of

students—I consider the kind of support that teachers might need to make these transformations possible.

## **RESEARCH ON SORTING PRACTICES: TRACKING, SPECIAL EDUCATION, GRADE RETENTION, AND READINESS ROOMS**

### **Tracking**

Tracking is one of the most pervasive practices in 20th-century American schools. It was developed early in the century in response to universal public education. Once schools were expected to teach all students instead of a homogeneous, elite group, institutional arrangements were created to deal with their heterogeneous learning levels. At the time, apparent differences among students were believed to be caused by permanent differences in students' capacity to learn. Therefore, students were assigned to different classes in elementary schools and to different course sequences in high schools to receive instruction consistent with their abilities. Grouping by ability is expected to improve achievement by tailoring instruction to what students are capable of learning. It is also believed that separating slow learners from fast learners will improve their self-concepts by providing successful rather than failing experiences.

Research on tracking does not confirm the happy intention of the practice. Although results from controlled studies are mixed—with some studies showing no differences in achievement between homogeneous classrooms and heterogeneously placed controls, and some studies showing benefits for students in the fast track—there is consistent evidence showing that children in the middle and slow groups generally lose academically (Good & Marshall, 1984; Slavin, 1987). Separate classrooms also do not protect children from negative inferences about their own abilities but rather create a social stigma because of the very public nature of being in the class for “dummies.” In a meta-analysis of 50 studies, Noland (1985) found that ability grouping had an average negative effect on students' self-concept.

More to the point of this volume, countless research studies show that tracking affects the quality of learning opportunities provided. Teachers would rather teach high-ability students. They hold higher expectations for them, spend more time preparing class instruction, expect more homework, and ask more challenging questions (Oakes, 1985). In the section on psychological theories I discuss why it is that teachers deliver a simplified curricu-

lum to students in low-ability classes. In addition to content differences, however, there are also effects on learning created by the cultural norms that develop in the separate classrooms. The businesslike atmosphere in high-ability classes keeps students focused on academic content, thus not eliciting a pattern of control and reprimand from teachers. In contrast, students in lower-track classrooms must actually transgress the norms of the group to pay attention and try to learn (see Oakes, 1985; Chapter 3).

Other points should also be made about the persistent findings from research on tracking. Tests used to make placement decisions are necessarily fallible. But two students who are initially indistinguishable from each other except for measurement error will become more like the mean of their respective ability groups. Children from poor and minority backgrounds are overrepresented in lower tracks.

### **Special Education Placement for Mild Handicaps**

Special education was developed originally to serve populations of physically handicapped, that is, deaf and blind, children, and the mentally retarded. Its boundaries have continually expanded to serve a larger and larger population of children with more mild (and more vaguely defined) learning problems. Special education is so called because it is intended to provide special instruction that acknowledges and accommodates a child's disability.

Beginning in the 1960s, a number of educational researchers and sociologists investigated the validity of claims that being placed in a separate educational system was beneficial. Their findings closely paralleled the negative evidence on tracking. Special education teachers were not necessarily better trained. Once assigned, children received a watered-down curriculum and lost ground academically compared with control children in the regular classroom. Furthermore, the negative effects of placement were greatest for the less severely (or less genuinely) handicapped students (see the meta-analysis of 50 studies by Carlberg & Kavale, 1980). A disproportionate number of special education students were (and continue to be) minority students. And more significantly, the disproportion of minority students increased as the number of mildly handicapped students increased (i.e., the more the definition of handicapped was expanded to include vaguely defined learning problems, the more minority children were captured by the definition).

Researchers have also documented the effects of labeling students as mentally handicapped. Not only are children stigmatized by negative labels, but labeling may also change how adults interact with a student. Labels are often reified so that they become the complete explanation of a child's learn-

ing problems. Because of its origins, special education placements naturally assume a medical model or deficit model of educational difficulties (Chapter 6), which means that problems are thought to be the result of the child's intrinsic disorders rather than problems that might have arisen because of the instructional context.

Research findings of negative effects are the basis for current federal requirements that children be placed in the "least restrictive environment." However, the enactment of federal legislation in 1975 has not necessarily alleviated the harmful effects of special education identification. Although a smaller percentage of children are now being placed in full-time self-contained classrooms, the total number of children being labeled as handicapped has grown markedly in the last 15 years, especially in the learning-disabilities category. We investigated the identification of children as learning disabled (LD) in a series of studies (see Shepard & Smith, 1983; Shepard, Smith, & Vojir, 1983; Smith, 1982). Our methods included interviews with directors of special education, surveys of test use and clinicians' knowledge, examination of the histories of a representative sample of 1,000 LD pupils, qualitative case studies, and observations at staffing meetings. Our conclusions from this research included the following: Most of the tests used in the diagnosis of LD are technically inadequate. Many clinicians are unaware of the difference between technically adequate and inadequate tests. Also clinicians interpret as signs of disorder patterns that occur in a large proportion of normal children (this tendency helps to explain why children are almost certain to be placed once referred to special education). Despite the tremendous costs of involving an average of six professionals in the assessment and staffing process leading to LD placement, only 7% of staffings showed any attempt to reconcile the findings from different professionals—that is, the school psychologist, LD teacher, speech pathologist, social worker, etc. More than half of the children labeled LD in the schools do not match either technical or clinical definitions of LD but are more accurately described as slow learners, children from non-English backgrounds, highly mobile children or those with frequent absences, naughty boys, and average achievers in high-achieving districts. From the available evidence it would be fair to say that most clinicians have abandoned a "scientific" definition of LD and ask instead, "Does this child need special help? If so, he must be LD." Believing that special education placement is an added benefit, educators are willing to place children with no restraint except that imposed by legal or funding limits.

The evidence does not warrant such a completely sanguine view of special education placement for "anyone who needs it." Although educators are nearly unanimous in their assertions that the LD label does not create a social

stigma among a child's peers, it is nonetheless true that labeling a child changes the nature of the classroom teacher's responsibility for that child's learning in both subtle and explicit ways. For example, once a child is labeled for even part-time placement, some standardized testing programs excuse that child from participation. Consistent with findings from other pull-out programs, special education resource-room help usually supplants rather than augments regular classroom instruction. Although it is assumed that the reduced pupil-teacher ratio in resource rooms automatically produces corresponding educational gains, this is not necessarily the case. For example, Thurlow, Ysseldyke, Graden, and Algozzine (1983) found that LD students were just as distracted in resource rooms (i.e., had poor time on task) as in the regular classroom. Most significantly, as documented by Allington in Chapter 17, the instruction in resource rooms is often deadly drill on worksheets, which offers little hope of helping children become more active and effective in their learning.

## **Grade Retention**

Grade retention is another mechanism of inequality that predates both tracking and special education. Nonpromotion was the 19th century's answer to diversity, developed when the urban poor and immigrant populations began to attend public schools. The extent of these three practices has tended to ebb and flow historically; sometimes one practice has taken on more of the sorting function when other practices were quiescent. For example, grade retention was discouraged from the time of the depression through the 1960s for philosophical reasons and to keep youths out of the work force. During the same period tracking flourished. Since the 1970s tracking practices have been greatly reduced in elementary schools; concurrently there has been a dramatic increase in special education placements and retention.

Once schools were organized into grades with the expectation that children would pass as groups through material sequentially ordered by difficulty, then repeating a grade became the remedy for students who were not keeping pace with instruction. In the present day, absent a slow track, retention is most often the intervention of choice for children who lack prerequisite skills for the next grade but whose problems are not serious enough to trigger special education placement. It is believed that the repeat year will allow students to catch up and be better prepared to go on to new material.

Contrary to popular beliefs, adhered to by both educators and the public at large, repeating a grade does not improve achievement. Holmes (1989) recently conducted a meta-analysis of 63 controlled studies. In the years following retention, retained students have lower achievement (by one quar-

ter of a standard deviation) than control students who went directly on to the next grade. Although researchers have reported the counterintuitive and harmful effects of retention since 1909 (Ayers), the research has often been criticized on the grounds that the nonrandomized control groups might have been better off initially given that they were promoted despite their low achievement. However, Holmes isolated the 25 studies with the greatest degree of initial matching and still found the same negative effects for retention.

Because the beliefs about the efficacy of retention are so strong, educational reformers in the 1980s have also seen it as a direct remedy for school dropout problems. For example, the chancellor of New York City Schools inaugurated the Gates testing program with the following statement:

Student promotion will be determined by the degree to which the student has mastered the basic skills required in each grade. Automatic advancement from grade to grade without evidence of achieving required performance standards in basic skills places an unfair burden on students in succeeding grades. The early mastery of basic skills will help to ensure that today's elementary school student is not tomorrow's high school dropout. The current dropout rate is intolerable and a program to attack this problem must be mounted immediately. (Macchiarola, 1981, as cited in Association for Supervision and Curriculum Development, 1984, p. 6)

Rather than reducing the risk of dropping out, however, the best evidence is that retention exacerbates the problem. Research on dropouts has always shown that a hugely disproportionate number had been retained compared with graduates. In studies where controls were introduced for prior achievement and background characteristics, retainees were 20% to 30% more likely to leave school without graduating than similar students who had never been retained (Grissom & Shepard, 1989).

The conventional wisdom on the social-emotional effects of grade retention is more congruent with research findings. Almost everyone acknowledges that there is a social stigma associated with flunking, and Holmes's (1989) synthesis confirms a negative effect on personal adjustment measures in the majority of studies. Some researchers speculate, in fact, that the humiliation of retention is one of the reasons for its lack of instructional benefit. However, such a conclusion cannot be confirmed or disconfirmed from the existing literature. It is just as plausible to conjecture that retention doesn't work because of bad instruction. Realignment a student by a 12-month relocation on a fixed achievement continuum is not any more likely to address an individual student's understandings and learning needs than occurred the first time through.

Of the three placement practices considered thus far, retention relies the



least on testing. However, formal testing programs to determine grade-to-grade promotion have increased substantially during the 1980s. In addition, there is some evidence that retention increases as an indirect effect of accountability testing; for example, children may be retained in the year preceding a high-stakes test. By whatever selection method, teacher recommendation or formal test, minority children are retained at higher rates than other groups.

### Kindergarten Retention and Programs for At-Risk Kindergartners

Unlike tracking, special education, and retention that have century-long histories, kindergarten retention and special programs for at-risk kindergartners are very recent phenomena. They are of particular interest here because they illustrate the extent to which the powerful belief systems underlying the old practices persist and are the basis for inventing new programs in the same mold, without any recognition on the part of practitioners that they are recreating new forms of tracking and special placement. Special kindergarten programs have burgeoned in the 1980s, but only in approximately the past 2 years have policy groups such as the National Forum on the Future of Children and Families sponsored by the National Research Council begun to use terms like *tracking*, when talking about the advisability of such programs.

In a brief space, it is very difficult to do justice to the variety of special programs that have been created to deal with children judged to be unready for kindergarten. Programs differ in form, underlying philosophy, and type of children defined to be at risk. The generic term for these special placement practices is kindergarten retention, which includes 2-year programs like developmental kindergarten before regular kindergarten, transition room before first grade, as well as straight repeating of kindergarten. Depending on local philosophy, the children may be selected for immaturity or academic deficiencies. When philosophical positions are congruent with instructional approach, there is a tendency for those who believe in biologically caused unreadiness to provide the gift of an extra year and wait for time to promote readiness; conversely, those who define unreadiness as environmentally caused skill deficiencies provide remediation following a curriculum that closely resembles readiness skills tests. We have also observed philosophically incongruent practices, however, where children were selected for 2-year placement because of developmental immaturity but given a highly regimented rule-oriented curriculum to prepare for first grade (Smith & Shepard, 1988). The names given to 2-year programs do not help to distinguish them substantively. For example, *junior-first*, *prefirst*, *transition*, and *readiness room* are all used to refer to the grade between kindergarten and first

grade and are used interchangeably regardless of philosophical assumptions or instructional approach.

The purpose of 2-year kindergarten placements of whatever stripe is to foster “readiness” for first grade as defined locally. By placing similar children together and gearing instruction to their needs, the intention is to ensure a more successful, less stressful experience in first grade. Advocates for 2-year programs promise parents that their children will become leaders because of the extra year and insist that there is no stigma associated with kindergarten retention if “it is handled properly.” Research evidence disputes these claims, however. A review of 16 controlled studies now available shows typically no difference academically between unready children who spent an extra year before first grade and at-risk controls who went directly on to first grade (Shepard, 1989). The findings of no benefit are consistent regardless of whether children were placed on the basis of immaturity or academic deficiency. In the few studies that included any measure of social or emotional effects there is evidence of some short-term or long-term trauma associated with the retention decision for a majority of retained children.

In our research that examined the larger context of kindergarten retention practices, we also reached the following conclusions:

1. Increasing rates of kindergarten retention (50% is not uncommon) can be attributed to dramatic shifts in the kindergarten and first-grade curriculum toward narrow emphasis on reading and numeracy skills.
2. Tests used to make readiness and retention decisions are not technically accurate enough to justify making special placement.
3. Removing unready children from regular kindergarten actually feeds the cycle of curriculum escalation as teachers adjust their expectations to the attention spans of 6-year-olds.
4. Matched schools that do not practice kindergarten retention have just as high average achievement as those that do but tend to provide more individualized instruction within normal grade placements (Shepard & Smith, 1988).

We have also noted that readiness tests are either thinly disguised IQ tests (called developmental screening measures) or academic skills tests (see Chapter 18); both types of tests tend to identify disproportionate numbers of poor and minority children as unready for school (see Ellwein & Eads, 1990; Shepard, in press).

In addition to 2-year kindergartens, there has been a tendency in recent years to group at-risk children together in regular kindergartens. This occurs, for example, when there are limited funds for extended-day programs so all

of the children who need the extra resource are placed in one classroom. Apparently educators do not think of this as tracking or as a potentially harmful practice. Otherwise they might think of other arrangements, such as placing children in heterogeneous regular kindergartens in the morning followed by additional, enrichment activities in the afternoon. But these special placements do lead to a familiar outcome. As documented by Garcia and Pearson in Chapter 18, the curriculum in these special rooms is dominated by drill on isolated readiness skills with little opportunity for the kinds of literacy activities and experience with texts that would truly foster reading readiness.

## Conclusions

Conclusions from the research literatures on these several sorting practices read like variations on the same theme. Each involves the use of fallible tests (or sometimes teacher judgments) to assign children to treatments that are ineffective or harmful. Tracking, special education, grade retention, and special kindergartens are all intended to individualize instruction by placing children in homogeneous groups where their needs are thought to be closer to the group average. The logic of these schemes to match instruction to student ability is so compelling that they are highly resistant to change even in the face of research evidence. Contrary to the promise of special help, however, children placed under each of these arrangements are likely to receive poorer instruction than if their problems had remained undiagnosed. Because there are socially understood connotations of incompetence associated with each of these special placements, children are likely to suffer embarrassment and have less confidence in their own abilities to learn as a result of placement. Children from linguistically and culturally different backgrounds are selected more frequently than white, middle-class children to participate in the groups with slowed instruction. In the next section I summarize the old learning theories that account for the ineffective, reductionist curriculum that children receive in accord with each of these placement practices. Belief systems based on the old theories also help to explain why tracking practices continue to be reinvented under new names.

## OLD SORTING THEORIES

There are two old psychological theories that continue to have pervasive influence on what educators and the public believe about learning, especially their beliefs about how much children are *able* to learn and their beliefs about how instruction should be organized to facilitate student learning. One

theory, about individuals' inherited capacity to learn, is well known as a controversial theoretical perspective. The second theory, which is the behaviorist's sequential learning model, is much less publicly recognized as a theory whose assumptions guide much of current educational practice. My rendition of these two models here is necessarily brief and oversimplified. My purpose is to sketch the most salient principles of the original theories as they are carried forward or reflected in the implicit belief systems of practitioners today. By characterizing both models as old and outmoded psychological theories, I do not claim that all scientists have rejected these theories nor even that most scientists have rejected all of the elements of each theory. However, the majority of scientists today find these theories, or explanatory viewpoints, incompatible with the weight of evidence. Thus, as outlined in the concluding section of the chapter, new models and perspectives have been developed that are more compatible with contemporary research findings.

### **Inherited Ability to Learn**

Psychology began as the study of individual differences with particular emphasis on differences in human intellectual capacity. The earliest conceptions of intelligence equated it literally with brain size. Intelligence was thought to be an innate attribute—a fixed, unitary trait passed on from father to son like height and hair color. The theory that one's ability to learn was determined by biology meant that there were naturally imposed ceilings on what different individuals could learn. Furthermore, because the theory as commonly held did not allow for the influences of past learning on current status, it was straightforward to equate capacity or potential with observed proficiency. The early history of tracking in the United States is predicated on the assumption that children with different measured potential should be provided with instruction commensurate with their abilities and designed to prepare them for their respective stations in life (see Chapman, 1988).

A view of intelligence as largely inherited has been discredited over time, first by the debunking of IQ tests as measures of potential, by evidence of the influence of environment on observed capabilities, and then by experimental demonstrations that children can be taught to think intelligently (see Brown, Campione, Webber, & McGilly, *in press*). This is not to deny that there are genetic contributions to manifest cognitive abilities. However, the more that scientists have learned over the last 50 years, the more they have steadily revised downward their estimates of the relative influence of heredity.

Since the controversies of the 1960s—centering on claims about IQ

differences among racial groups—most laypersons have also revised their notions about the relative influence of heredity and environment on an individual's demonstrated intellectual abilities. However, revisions in the common view, shared by teachers and the public, have not kept pace with the research insights provided by cognitive psychology, sociology, or cultural anthropology. Therefore, lay conceptions about abilities tend not to include very elaborated ideas about how interactive are the events and processes that develop learning ability. Simplistically, today's view is that a person's intelligence is determined by two quantities, heredity plus environment, rather than one. But once they are added together and cemented (say, by the time a child is 5), the idea is still that the sum of these two contributions sets fairly firm limits on how much children can learn.

I suggest that a “substitute, environmental, theory” has now taken the place of the hereditarian theory in the minds of many teachers, but that this theory nonetheless preserves many of the properties of the old theory about fixed IQ. The substitute theory is another way of looking at what several authors in this volume have referred to as the deficit model. Although almost all teachers today would consider it socially and politically unacceptable to talk about a child's “limited genetic endowment for school learning,” substitution of an environmental explanation for school failure, which directly denigrates the child's home experiences, is considered acceptable (see Chapter 6). In addition, although most teachers are usually willing to acknowledge that tests, particularly ability tests, are probably biased against minority children, there is little awareness of the extent to which their personal judgments about children's abilities might be distorted and limited by their own cultural experiences and perspectives. As discussed by the authors in this volume and in Heath's (1983) study, teachers very often misinterpret a lack of response from students as evidence of deficiency, rather than seeing how students' abilities to express their understanding and relevant learning are straight-jacketed by the imposition of school conventions of discourse. Because many teachers thus miss seeing the competence of culturally different children and hold implicitly to a conception of environmentally determined inability that is relatively permanent, they tend to view the problems of children from nonmainstream or non-English-speaking backgrounds as insurmountable or unalterable. This pessimistic attitude encourages the tracking practices described in the first section of the chapter and sets the stage for watered-down teaching goals, consistent with the second “old” theory discussed next.

### **The Sequential, Bit-by-Bit Model of Learning**

The dominant learning theory affecting education from the 1950s to the present time has been behaviorism. Its assumptions pervade both curriculum

materials and standardized tests; however, most educators neither describe themselves as behaviorists nor recognize that their beliefs about learning come from behaviorist principles. Behaviorism goes back to the stimulus-response conditioning of Pavlov's first experiments. The basic tenet of this theory is that all learning can be broken down into constituent skills that must be learned sequentially from the simplest to the more complex. For example, in Skinner's (1954) words, "The whole process of becoming competent in a field must be divided into a very large number of very small steps, and reinforcement must be contingent upon the accomplishment of each step" (p. 94). In practice, enactment of behaviorist theory follows the model of mastery learning, programmed instruction, and the like, where learning objectives are carefully delineated and ordered hierarchically so that students do not go on to the next objective until they have mastered the lower level skill.

These ideas have a powerful hold on how teachers think about instruction because it seems so intuitively reasonable to help a student who is failing to learn by teaching the prerequisite knowledge that appears to be missing. However appealing the premise, the sequential, bit-by-bit learning model rests on several fallacious assumptions about learning that, in the light of current research, can be seen to lead instruction in the wrong direction. First, as other critics have noted, the model of sequential mastery rests on the assumptions of *decomposability* and *decontextualization* (Resnick & Resnick, 1990; Stallman & Pearson, 1990). It is assumed that complex understandings can be taken apart (by the teacher or curriculum developer) and given to students to practice in isolation. As described by the Resnicks, the implication is that these separate elements, once learned, can then be reassembled into a complex skill, as if one were assembling a piece of machinery from prefabricated parts. The truth is, however, that behavioral theory never explained (nor examined) how constituent parts were to be integrated so as to progress from rote skills to conceptual understanding. This "reductionist" model leads to bad instruction because it removes learning tasks from any context that would make them more meaningful (and therefore easier to learn). And, having decontextualized skill learning, it makes learning to apply school knowledge to real-world problems into a separate and onerous step.

Perhaps the most deadly assumption of all is the belief that thinking or development of "high-order" skills should be postponed until after students have mastered the basics. Notice that the original premise of behaviorism was that children should be taught prerequisite *knowledge*, which came to mean prerequisite *skills* or information, rather than prerequisite *understandings*. Behaviorists never wanted any truck with unobservable constructs like

“understanding”—a principled stance against the earlier reification of intelligence. However, this led necessarily to the specification of learning objectives that could be behaviorally defined and observed but that also were narrow and often trivial. Despite overwhelming evidence from cognitive psychology that all learning involves thinking—even comprehension of simple texts (see Resnick & Resnick, 1990), instruction predicated on the old model denies “poor” students opportunities to think until they have mastered prerequisites.

Evidence of the numbing quality of instruction delivered to low-achieving students on the basis of these assumptions is cited over and over again in the foregoing chapters. For example, in a series of studies Allington (Chapter 17) found that good readers are expected to be self-directed and are given assignments that imply that the purpose of reading is comprehension of meaning. Poor readers, on the other hand, are taught in a markedly different way, emphasizing externally controlled fluent decoding, not understanding; “teachers interrupted poor readers more often, asked poor readers fewer comprehension questions, assigned more skill-in-isolation work, and so on” (p. 000). Similarly, Borko and Eisenhart (1986; see also Chapter 3) found that children who had been assigned to reading groups on the basis of standardized test results had fundamentally different views of what reading was about. “Only high group students mentioned understanding or meaning as an aspect of reading” (p. 3). During instruction, high-group readers were given the opportunity to read and discuss extended texts and were held accountable for understanding, whereas low-group readers were publicly accountable for decoding skills and appropriate classroom behaviors. Rueda in Chapter 7 documents that language-minority students in special education programs receive instruction that treats them as passive learners, with emphasis on private drill and practice using worksheets. Hiebert and Fisher in Chapter 10 comment that poor achievers (who haven’t learned as the result of bad instruction) are then assigned to special placements, Chapter 1, and special education, “where a philosophy of ‘more of the same is better’ reigns”.

I have not attempted to analyze in this chapter how the secondary aspects of tracking and special placement—for example, being separated from peers and internalizing a sense of failure—might lead to negative outcomes. It should be clear from the preceding discussion that special placements are harmful in large part because the treatments themselves limit learning. Basing their beliefs on flawed and outdated psychological theories, teachers are pessimistic about the abilities of non-middle-class children and resort to bit-by-bit teaching strategies in low-track placements, thereby constraining opportunities for children to learn. Although intended to be helpful, the practice

of assigning poor achievers to special places where they receive bad instruction is analogous to sending debtors to prison in Victorian England. The only comforting thought in the face of this dismal picture is to realize that millions of public school children are failing *because of*, not *in spite of*, the concerted effort vested in special programs. The prospects for the future would be much grimmer if the evidence suggested that the educational system had already made its best effort.

### SUMMARY: NEW THEORIES AND NEW PRACTICES

When Binet first invented the idea of mental measurement, he worried that teachers would find it “an excellent opportunity for getting rid of all children who trouble us” (Binet & Simon, 1905/1973, quoted in Brown et al., in press, p. 19). As noted by Brown et al. (in press), Binet foresaw the reification of individual’s scores and the development of self-fulfilling prophecies: “It is really too easy to discover signs of backwardness in an individual when one is forewarned” (Binet & Simon, 1905/1973, p. 170). The sorting and segregating educational practices of the past 90 years have been the enactment of Binet’s worst fears. Although there have always been voices crying against the injustice and false science of these practices, it has only been in recent decades that a major shift has occurred in the research community away from the conceptual frameworks that had given support to injurious practices such as tracking and watered-down instruction for slow learners.

The alternatives to current practices are the substance of this volume on literacy for a diverse society. Although the authors do not come from precisely the same disciplinary and research perspectives, they share common views about learning and literacy instruction. These views, which I have characterized as the “new” theories, are the culmination of findings and cross-disciplinary insights from the last 20 years of research in cognitive psychology, sociolinguistics, anthropology, and education. This new theoretical perspective—which sees learning as an active constructive process—has been adopted by researchers and curriculum specialists in all areas of subject-matter learning, not just literacy. For example, this cognitive-constructivist perspective is reflected in the new curriculum standards of the National Council of Teachers of Mathematics (1989) and in the National Research Council (1989) report *Everybody Counts*. The same perspective pervades the standards for developmentally appropriate curriculum developed by the National Association for the Education of Young Children (Bredekamp, 1987). Thus we are witnessing a profound and pervasive effort to change the shape



of educational practice based on research understandings about how children learn.

The respective chapters in the volume provide detailed elaborations of current theory and implications of theory for practice. Therefore, I will not attempt to redevelop and explicate those ideas here. However, for the benefit of the novice reader, and to contrast with the old theories, let me enumerate some of the principles of the new theories:

1. *Intelligence and reasoning are developed abilities.* Intelligence is neither a biologically nor an environmentally determined trait but is the result of complex interactions of the individual with his or her social environment. Humans learn how to think based on the models of thinking that they have the opportunity to see and try out. Metacognitive processes (that are synonymous with intelligent thought) such as planning and evaluating during problem solving, self-checking for comprehension during reading, developing a mental representation of a problem, drawing analogies to previously learned concepts are learned. Furthermore, when an individual fails to learn these thinking strategies “naturally,” they can be instructed explicitly. The model of reciprocal teaching described by Palincsar and David in Chapter 9 is a successful practical application of the new perspective with special attention to this principle. Notice that reciprocal teaching makes it possible to teach the metacognitive strategies involved in effective reading even before children have mastered the basic skills of reading.

2. *Developed ability and learning-to-learn strategies are largely context specific.* Although there are some habits of mind that are applied across contexts and tend to predict how individuals will behave when confronted with novel problems, most thinking strategies are highly developed within specific contexts. This means that children who have developed the language and social interaction patterns appropriate in one context will look ignorant and deficient to teachers who are unaware of the arbitrary language and learning conventions they impose on the basis of their own cultural norms. Shirley Brice Heath’s (1983) work, cited by several authors here, documents how the mismatch between community and school communication patterns leads to the perception of deficit. Her work with teachers also demonstrates how much more successful children from different cultural backgrounds can be when, with greater insight, teachers make one of two accommodations: Either teach children explicitly the school conventions that are essential or change the conventions that are unnecessary and dysfunctional. For example, African-American children in Heath’s study showed much more impressive story comprehension when they were invited to retell a story rather than to respond to isolated recall questions.

3. *Learning is a constructive process.* Passively taking in endless bits of unconnected information quickly exhausts the brain. The learner cannot acquire new ideas nor see the connection between ideas unless he or she actively constructs a mental schema of relations. Reading comprehension is the process of thinking and making meaning from text. It requires interpreting, retelling the story to oneself, and rereading when the thread is lost. Thus all learning involves thinking. If thinking is officially postponed until after skills are acquired, learning will be stunted.

4. *Furthermore, meaning is socially constructed.* What children learn, how they learn, and whether they are able to apply their knowledge in particular contexts are determined by cultural patterns and social arrangements (see Chapters 3 and 8).

(Regarding points 3 and 4, the reader will note that there are multiple meanings of constructivism in the field presently. Cognitive researchers are concerned primarily with the construction of meaning that goes on inside an individual's head—the building of knowledge structures, the chunking of related information, etc. Anthropologists and sociolinguists are interested in the social construction and negotiation of meaning among individuals in a culture. Vygotsky's theory, quoted so often in this volume, provides the bridge between the two levels of constructivism, because he suggested that a child's cultural development occurs first on the social plane and then is internalized to the intrapsychological plane and becomes a part of the individual's mental functioning.)

It follows from these principles that effective instruction should engage children in meaningful, contextually situated tasks where the goal is to practice and develop strategic thinking about important subject matter. The progress of instruction should be designed to help students use what they already know to arrive at new understandings. And prior knowledge is defined not just as vocabulary and information mastery but includes all of the images, language patterns, social relations, and personal experiences that a student relies on to make sense of something new. This volume is full of examples of the kinds of instructional practices that are faithful to these cognitive-constructivist principles.

One final word of caution is called for, however. Despite the extensive, powerful evidence in this volume that alternatives to present practice are possible and essential, it is not realistic to expect that practice will change quickly or easily. Even when explicit policy changes forbid practices such as tracking or retention, there is ample evidence that new ways can be found to get rid of hard-to-teach children unless fundamental changes are made in our habits of mind (see Chapter 15). The great majority of teachers are novices

to the principles of constructivism and to the models of culturally responsive literacy instruction described in this book. Old beliefs die hard. It is no more reasonable to expect teachers to adopt these complex new views whole than it is reasonable for them to expect that all children bring precisely the same experiences to school learning. Teachers will need support of the kind described by Gaffney and Anderson in Chapter 13 for their own process of learning to become experts with these ideas. More importantly, if they are to be active and constructive learners, they will need support from each other to develop fully elaborated conceptions of what these ideas mean in practice and to evaluate and improve their own efforts over time. One such model of collegial support is the staff review group suggested by teacher Anne Martin (1988) as an alternative to special education labeling. Staff review groups are comprised of regular teachers coming together to help each other brainstorm about new ways to connect with a child by recognizing and capitalizing on that child's strengths. In addition to the more promising learning prospects for children treated in this way, Martin also reported that staff participants experienced a sense of exhilaration and renewed commitment to teaching. Martin's conclusion is a fitting closing to this chapter as well:

Perhaps if schools were to drop their screening procedures, to stop sorting out children on the basis of tests' results, and to refrain from predicting success or failure for entering students, they would be free to accept all children as learners with unique and interesting abilities. Staffs and small groups of teachers could work together to support each other's strengths, and thus support children's strengths, instead of dwelling on problems. Public education can only succeed when all children are accepted equally as contributors in a classroom community and when teachers work together, trusting themselves to teach and children to learn. (p. 501)

This volume should prove to be a rich resource to groups of teachers interested in transforming their own practices by trying out new habits of mind with literacy instruction.

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