Understanding and Responding to Learning Problems and Learning Disabilities

Exhibits and Resource Aids for Unit I

Exhibits

Resources Aids

Who are we Talking about?

The single most characteristic thing
about human beings is that they learn.
Jerome Bruner, 1966

Although reliable data do not exist, most would agree that at least 30 percent of the public school population in the United States have learning problems. We approach the topic of learning disabilities with that large group in mind, and we limit the term *learning disabilities* to one specific subtype found among the larger group.

> Moreover, we consider all learning problems in the context of basic ideas about learning and teaching. We believe that to move forward in dealing with all learning problems requires a fundamental appreciation of how to foster learning among persons with and without internal disabilities. And, because sociopolitical and economic factors have such a pervasive influence on learning and teaching, we approach these topics within a societal context.

There are valid reasons for wanting to differentiate among individuals who have learning problems. One reason is that some teaching problems can be prevented; another is that some learning problems are much easier to overcome than others.

> While there are good reasons for differentiating among persons who have problems learning, doing so is not easy. Severity is the most common factor used to differentiate learning disabled among all other learning problems. However, there is also a tendency to rely heavily on how far an individual lags, not only in reading, but also in other academic skills. Thus, besides severity, there is concern about how pervasive the problem is. Specific criteria for judging severity and pervasiveness depend on prevailing age, gender, subculture, and social status expectations. Also important is how long the problem has persisted.

In the final analysis, the case for learning disabilities as a special type of learning problem is made from the perspective of learning problems in general.

Failure to differentiate learning disabilities from other types of learning problems has caused a great deal of confusion and controversy. Currently, almost any individual with a learning problem stands a good chance of being diagnosed as having learning disabilities. As a result, many who do not have disabilities are treated as if the cause of their problems was some form of personal pathology. This leads to prescriptions of unneeded treatments for nonexistent internal dysfunctions. It also interferes with efforts to clarify which interventions do and do not show promise for ameliorating different types of learning problems. Ultimately, keeping learning disabilities in proper perspective is essential to improving both research and practice.

For individuals with severe learning problems, an important key to overcoming their problems is pursuit of learning outside the teaching situation. Poor readers, for example, are unlikely to become good readers if the only time they read is during reading instruction. Basic ideas about learning and teaching provide the context for any discussion of learning problems in general and learning disabilities in particular. A specific focus on what mobilizes and maintains an individual's pursuit of learning is essential, as is an emphasis on addressing all other barriers to learning.

Society as the Context for Teaching and Learning

Education is a social invention. All societies design schools in the service of social, cultural, political,and economic aims. Concomitantly, socialization is the aim of a significant portion of the teaching done by parents and other individuals who shape the lives of children. This is especially the case for populations labeled as problems. Because society has such a stake in teaching and learning, it is critical to discuss these topics within a societal context.

Society shapes the content and context of teaching, the definition of learning problems, and the way teachers are held accountable for outcomes. The field of learning disabilities exemplifies these points. It was created and is maintained through political processes (see Feature 1). Prevailing definitions and prominently proposed revisions are generated through political compromises. Guidelines for differentiating learning disabilities from other learning problems, for planning what students are taught, and for evaluating what they learn - all are established through political processes.

Moreover, as Nicholas Hobbs (1975a) has stated:

> *Society defines what is exceptional or and appropriate treatments are designed quite as much to protect society as they are to help the child.... "To deviant, take care of them" can and should be read with two meanings" to give children help and to exclude them from the community. (pp. 20-21)*

Inevitably, exploration of teaching and learning and of learning problems and disabilities touches upon education and training, helping and socializing, democracy and autocracy. Schools, in particular, are places where choices about each of these matters arise daily. The decisions made often result in controversy. It is only through understanding the role society plays in shaping teaching practices and research that a full appreciation of the limits and the possibilities of ameliorating learning problems can be attained.

Learning and Teaching as the Context for Understanding Learning Problems

Although learning is not limited to any time or place, problems in learning are recognized most often in the classroom. Why do people have so many learning problems? What can we do to make things better? We need to understand both the factors that lead to learning and those that interfere with it. One critical set of such factors has to do with teaching, both in and out of schools.

> From the perspective of learning and teaching, another way to differentiate among learning problems is to identify those caused primarily because of the way things are taught. Given that there are schooling-caused learning problems, they ought to be differentiated from those caused by central nervous system dysfunctioning (that is, learning disabilities). When we do this, it becomes clear that the prevention of some learning problems requires changing some school practices. Individuals with learning disabilities may require something more in the way of help.

We hasten to add that the fundamentals of teaching apply in helping anyone with a learning problem. Moreover, quality teaching can be seen as providing a necessary context for approaching all learning problems. And excellence in teaching is best understood in the context of how people learn.

The whole art of teaching
is only the art of awakening
the natural curiousity of young minds
for the purpose of satisfying it afterwards.
Anatole France, 1890

Keeping LD in Proper Perspective

Given that the concept of LD is poorly defined and differentiated and results in overdiagnosis and inflated prevalence and incidence figures, it is not surprising that those so diagnosed have become the largest percentage in special education programs. It also is not surprising that the LD field has experienced a significant backlash in the form of criticism of current practical and Policies, such as the Regular or General Education Initiative.

> Obviously, then, the fact that someone has been assigned the LD label is not sufficient indication that the individual has an underlying dysfunction. Still, it remains scientifically valid to conceive of a subgroup (albeit a small subset) whose learning problems are neurologically based and to differentiate this subgroup from those with learning problems *caused* by other factors. A useful perspective for doing this is provided by a reciprocal determinist or transactional view of behavior. (Note that this view goes beyond emphasizing the importance of environmental variables and an ecological perspective.)

A transactional perspective subsumes rather than replaces the idea that some learning problems stem from neurological dysfunction and differences. As elaborated by Adelman and Taylor (1983, 1986a), a transactional view acknowledges that there are cases in which an individual's disabilities predispose him or her to learning problems even in highly accommodating settings. At the same time, however, such a view accounts for instances in which the environment is so inadequate or hostile that individuals have problems despite having no disability. Finally, it recognizes problems caused by a combination of person and environment factors. The value of a broad transactional perspective, then, is that it shifts the focus from asking whether there is a neurological deficit causing the learning problem to asking whether the causes are to be found *primarily* in one of the following:

> ? *The individual* (e.g., a neurological dysfunction; cognitive skill and/or strategy deficits; developmental and/or motivational differences)

> ? *The environment* (e.g., the primary environment, such as poor instructional programs, parental neglect; the secondary environment, such as racially isolated schools and neighborhoods; or the tertiary environment, such as broad social, economic, political, and cultural influences)

> ? The reciprocal *interplay of individual and environment*

Type 1, 11, and III Learning Problems

No simple typology can do justice to the complexities involved in classifying learning problems for purposes of research, practice, and policymaking. However, even a simple conceptual classification framework based on a transactional view can be helpful. We have found, for example, that it is extremely valuable to use such an approach to differentiate types of learning problems along a causal continuum (e.g., Adelman & Taylor, 1986b).

 In most cases it is impossible to be certain what the cause of a specific individual's learning problem might be. Nevertheless, from a theoretical viewpoint it makes sense to think of learning problems as caused by different factors (see the Exhibit).

Learning Problems and Learning Disabilities: A Causal Continuum

By way of introduction, think about a random sample of students for whom learning problems are the *primary* problem (that is, the learning problem is not the result of seeing or hearing impairments, severe mental retardation, severe emotional disturbances, or autism). What makes it difficult for them to learn? Theoretically, at least, it is reasonable to speculate that some may have a relatively minor internal disorder causing a *minor* central nervous system (CNS) dysfunction that makes learning difficult even under good teaching circumstances. These are individuals for whom the term *learning disabilities* was created. In differentiating them from those with other types of learning problems, it may help if you visualize learning disabilities as being at one end of a learning problems continuum. We call this group Type III learning problems.

Type III
learning problems
?

caused by minor
CNS dysfunction

At the other end of the continuum are individuals with learning problems that arise from causes outside the person. Such problems should not be called learning disabilities. Obviously, some people do not learn well when a learning situation is not a good one. It is not surprising that a large number of students who live in poverty and attend overcrowded schools manifest learning and psychosocial problems. Problems that are primarily the result of deficiencies in the environment in which learning takes place can be thought of as Type I learning problems.

Type I	Type III
learning problems	learning problems
?	?
Caused by factors outside the person	Caused by minor CNS Dysfunction

To provide a reference point in the middle of the continuum, we can conceive of a Type 11 learning problem group. This group consists of persons who do not learn or perform well in situations where their individual differences and vulnerabilities are poorly accommodated or are responded to with hostility. The learning problems of an individual in this group can be seen as a relatively equal product of the person's characteristics and the failure of the learning and teaching environment to accommodate to that individual.

Type I	Type II	Type III
learning problems	learning problems	learning problems
?	?	?
Caused by factors outside the person	Caused by person and environment factors	Caused by minor CNS dysfunction

Personalized Instruction and Remediation

Good teaching requires more than having a comprehensive curriculum. It also requires strategies that make learning meaningful, as well as the ability to bring subject matter to life. Moreover, individuals with learning problems need instruction that accounts for their strengths, weaknesses, and limitations. For a classroom teacher, this means accommodating a wide range of individual and subgroup differences. More specifically, good teaching related to learning problems should encompass such ideas as matching both motivation and capability (levels of development), enhancing and expanding intrinsic motivation, overcoming avoidance motivation, and using the least intervention needed. Teachers also must participate with others in addressing the wide range of other barriers that interfere with student learning. Adelman and Taylor (see 1993 text) have incorporated such ideas into a two-step model that emphasizes first personalizing classroom instruction and then approaching Remediation from a hierarchical perspective.

As a leading writer of the twentieth century, John Steinbeck was asked to address a convention of teachers. Part of what he said to them was the following:

> School is not easy and it is not for the most part very much fun, but then, if you are very lucky, you may find a teacher. Three real teachers in a lifetime is the very best of luck. My first was a science and math teacher in high school, my second a professor of creative writing at Stanford and my third was my friend and partner, Ed Rickets.
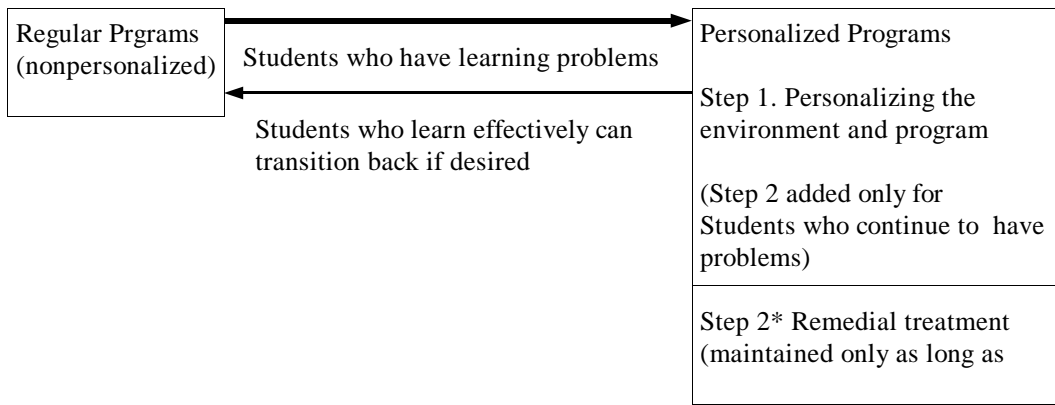
> I have come to believe that a great teacher is a great artist and that there are as few as there are any other great artists. It might even be the greatest of the arts since the medium is the human mind and spirit.

> My three had these things in common-they all loved what they were doing. They did not tell -- they catalyzed a burning desire to know. Under their influence, the horizons sprung wide and fear went away and the unknown became knowable. But most important of all, the truth, that dangerous stuff, became beautiful and very precious.
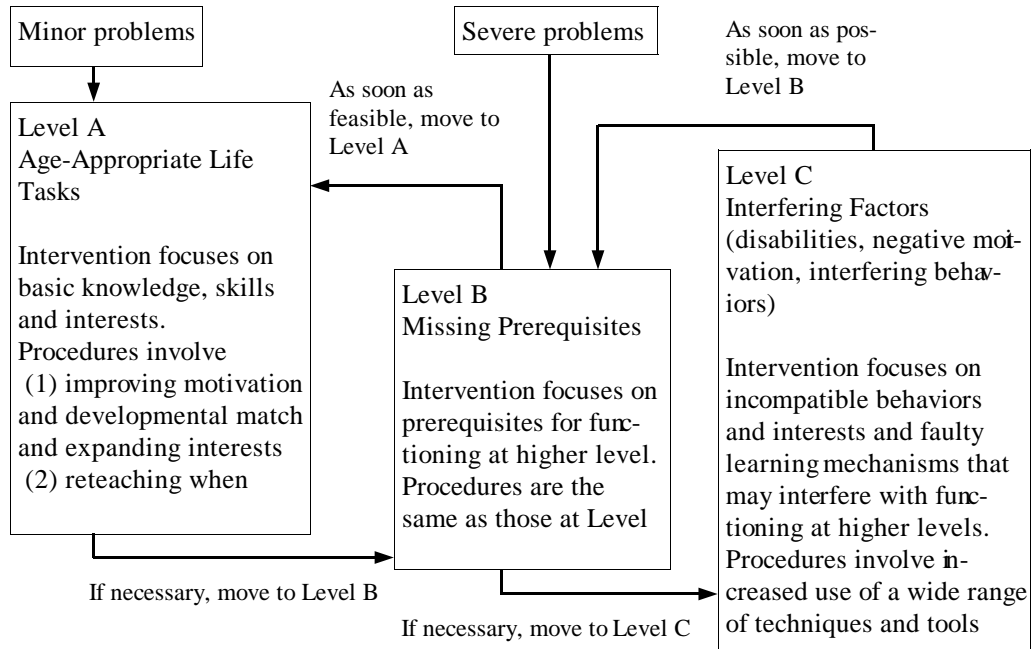
Personalized, Sequential and Hierarchical Teaching

A transactional perspective suggests that preventing and remedying many learning problems primarily require general changes in systems and learning environments, such as modifying approaches to schooling and instruction. In particular, the emphasis is on modifying current instructional practices to better match individual differences not only in capability (levels of development), but also in motivation. Indeed, a systematic focus on *motivation*, especially *intrinsic* motivation, probably needs to be given primary emphasis.

The figure below outlines our two step approach to revamping classroom systems to better address the needs of all learners.

Regular Prgrams (nonpersonalized)	**Personalized Programs** Step 1. Personalizing the environment and program (Step 2 added only for Students who continue to have problems)

Students who have learning problems

Students who learn effectively can transition back if desired

Step 2* Remedial treatment (maintained only as long as

* At Step 2, the course of remediation differs for minor and severe problems.

Minor problems		Severe problems	As soon as possible, move to Level B

As soon as feasible, move to Level A

Level A
Age-Appropriate Life Tasks

Intervention focuses on basic knowledge, skills and interests.
Procedures involve
 (1) improving motivation and developmental match and expanding interests
 (2) reteaching when

Level C
Interfering Factors
(disabilities, negative motivation, interfering behaviors)

Intervention focuses on incompatible behaviors and interests and faulty learning mechanisms that may interfere with functioning at higher levels. Procedures involve increased use of a wide range of techniques and tools

Level B
Missing Prerequisites

Intervention focuses on prerequisites for functioning at higher level. Procedures are the same as those at Level

If necessary, move to Level B

If necessary, move to Level C

The Concept of the Match

All individualized and personalized interventions can be seen as based on the concept of the match. The major thrust in *most individualized* approaches, however, is to match individual differences in *capability*, whereas personalization has been defined as matching individual differences in both capability and *motivation*.

> Personalization represents an application of the principles of
> normalization and least intervention needed (which encompasses the
> concept of "least restrictive gi environment"). Furthermore.
> personalization can be treated as a psychological construct if the
> *learner's perception* is viewed as a critical factor in defining whether the
> environment appropriately accounts for his/her interests and abilities. In
> stressing learners' perceptions of teaching and learning environments, it
> becomes evident that it is essential to place equal and perhaps primary
> emphasis on assessing an individual's 'interests as well as abilities.

Properly designed and carried out, personalized programs should reduce the need for remediation. That is, maximizing motivation and matching developmental capability should be a sufficient condition for learning among those who have no internal disability -- those designated as Type I problems. This, of course, means that the need for remedial intervention is minimized. Thus, personalized programs represent the type of program regular classrooms need to implement in order to improve significantly the efficacy of inclusion, mainstreaming, and prereferral interventions.

Once a personalized program is properly implemented, it is to be expected that, though mobilized to try harder, some students will continue to have significant learning problems (e.g., those in the Type III category). From this perspective, a personalized program can be seen as the first step in assessing who does and does not require more than appropriate accommodation of individual differences in order to learn effectively. Those who do need more, of course, are candidates for the full range of remedial interventions.

Depending on problem severity and pervasiveness, remediation involves one (or more) of three hierarchical levels, ranging from a focus on observable problems to one on underlying problems (Adelman, 1989a, Adelman & Taylor, 1986a). Level A focuses on age-appropriate life tasks (basic knowledge, skills, and interests), level B on missing prerequisites for learning, and level C on factors interfering with learning (disabilities, negative motivation, interfering behaviors).

Procedures used for personalization and remediation should reflect a primary, systematic focus on motivation. In particular, they should emphasize (a) assessing motivation, (2) overcoming negative attitudes, (3) enhancing motivational readiness for learning, (4) maintaining intrinsic motivation throughout the learning process, and (5) nurturing the type of continuing motivation that results in the learner engaging in activities away from the teaching situation. Attending to these matters is seen as essential to maximizing maintenance, generalization, and expansion of learning. Failure to attend systematically and comprehensively to these matters means approaching passive (and often hostile) learners with methods that confound diagnostic and research efforts and that may just as readily exacerbate as correct learning and behavior problems (Adelman & Taylor, 1990).

Decisions about general curriculum goals are based on assessment of the individual's interests and abilities. The level of remediation on which to focus with respect to any curricular goal is determined by assessing an individual's responses to daily instruction. Specific remedial objectives are formulated initially through dialogue with the learner to generate processes and outcomes that are valued and that he or she perceives as attainable. General goals and specific objectives are modified through ongoing dialogues informed by analyses of task performance, supplemented with formal assessment devices when necessary.

Personalizing Classrooms

Personalization stresses the importance of a learner's perception of how well the learning environment matches her or his motivation and capability. Personalized programs are built on the following assumptions:

? Learning is a function of the ongoing transactions between the learner and the learning environment.

? Optimal learning is a function of an optimal match between the learner's accumulated capacities and attitudes and current state of being and the program's processes and context.

? Matching a learner's motivation must be a prime objective of the program's procedures.

? Matching the learner's pattern of acquired capacities must also be a prime procedural objective.

? The learner's perception is the critical criterion for evaluating whether a good match exists between the learner and the learning environment.

? The wider the range of options that can be offered and the more the learner is made aware of the options and has a choice about which to pursue, the greater the likelihood that he or she will perceive the match as a good one.

? Besides improved learning, personalized programs enhance intrinsic valuing of learning and a sense of personal responsibility for learning. Furthermore, such programs increase acceptance and even appreciation of individual differences, as well as independent and cooperative functioning and problem solving.

Exhibit (cont.) The following are the major elements of personalized programs:

?   regular use of informal and formal conferences for discussing options, making decisions, exploring learner perceptions, and mutually evaluating progress;

?   a broad range of options from which the learner can make choices with regard to types of learning content, activities, and desired outcomes;

?   a broad range of options from which the learner can make choices with regard to facilitation (support, guidance) of decision making and learning;

?   active decision making by learner in making choices and in evaluating how well the chosen options match his or her current levels of motivation and capability;

?   establishment of program plans and mutual agreements about the ongoing relationships between the learner and the program personnel; and

?   regular reevaluations of decisions, reformulation of plans, and renegotiation of agreements based on mutual evaluations of progress, problems, and current learner perceptions of the "match."

Mobilizing the Learner

No teacher has control over all the important elements involved in learning. Indeed, teachers actually can affect only a relatively small segment of the physical environment and social context in which learning is to occur. Because this is so, it is essential that teachers begin with an appreciation of what is likely to affect a student's positive and negative motivation to learn. For example, they need to pay particular attention to the following points:

? Optimal performance and learning require motivational readiness. Readiness is no longer viewed in the old sense of waiting until an individual is interested. Rather, it is understood in the contemporary sense of offering stimulating environments that can be perceived as vivid, valued, and attainable.

? Teachers not only need to try to increase motivation-especially intrinsic motivation - but also to avoid practices that decrease it. For example, overreliance on extrinsics to entice and reward may decrease intrinsic motivation.

? Motivation represents both a process and an outcome concern. For example, the program needs to be designed to maintain, enhance, and expand intrinsic motivation for pursuing current learning activities as well as learning beyond the lesson.

? Increasing motivation requires focusing on a student's thoughts, feelings, and decisions. In general, the intent is to use procedures that can, reduce negative and increase positive feelings, thoughts, and coping strategies. With learning problems, it is especially important to identify and minimize experiences that maintain or may increase avoidance motivation.

The point about minimizing experiences that have negative associations deserves special emphasis. Students with learning problems may have developed extremely negative perceptions of teachers and programs. In such cases, they are not likely to be open to people and activities that look like "the same old thing." Major changes in approach are required for the student to notice that something has changed. Exceptional efforts must be made to have these students (1) view the teacher as supportive (rather than controlling and indifferent), and (2) perceive content, outcomes, and activity options as personally valuable and obtainable.

Three major intervention implications are that a program must provide for

? a broad range of content, outcomes, and procedural options, including a personalized structure to facilitate learning

? learner decision making

? ongoing information about learning and performance

Such procedures are fundamental to mobilizing learners in classroom programs.

Options and Learner Decision Making

Every teacher knows a classroom program has to have variety. There are important differences among students as to the topics and procedures that currently interest or bore them. In programs for students with learning problems, more variety seems necessary than in classes for those without learning problems.

Moreover, among those with learning problems are a greater proportion of individuals with avoidance or low motivation for learning at school. For these individuals, few currently available options may be appealing. How much greater the range of options needs to be depends primarily on how strong avoidance tendencies are. In general, however, the initial strategies for working with such students involve the following:

? further expansion of the range of options for learning (if necessary, this includes avoiding established curriculum content and processes)

? primarily emphasizing areas in which the student has made personal and active decisions

? accommodation of a wider range of behavior than is usually tolerated

From a motivational perspective, one of the basic instructional concerns is the way in which students are involved in making decisions about options. Critically, decision-making processes can lead to perceptions of coercion and control or to perceptions of real choice (being in control of one's destiny, being self-determining). Such differences in perception can affect whether a student is mobilized to pursue or avoid planned learning activities or outcomes.

People who have the opportunity to make decisions among valued and feasible options tend to be committed to follow through. In contrast, people who are not involved in decisions often have little commitment to what is decided. If individuals disagree with a decision that affects them, they may also react with hostility.

Thus essential to programs focusing on motivation are decision-making processes that affect perceptions of choice, value, and probable outcome. Optimally, we hope to maximize perceptions of having a choice from among personally worthwhile options and attainable outcomes. At the very least, it is necessary to minimize perceptions of having no choice, little value, and probable failure.

Facilitating Motivated Learning

For motivated learners, facilitating learning involves (1) maintaining and possibly enhancing motivation, and (2) helping establish ways for learners to attain their goals. We want to help the individual learn effectively, efficiently, and with a minimum of negative side effects.

> Sometimes all that is needed is to help clear the external hurdles to learning, At other times, facilitating learning requires leading, guiding, stimulating, clarifying, and supporting. Although the process involves knowing when, how, and what to teach, it also involves knowing when and how to structure the situation so that people can learn on their own (Joyce & Weil, 1986).

Specifically, the teacher can be viewed as trying to accomplish nine comprehensive procedural objectives:

1 . establishing and maintaining an appropriate working relationship with students (for example, through creating a sense of trust, open communication, providing support and direction as needed)

2. clarifying the purpose of learning activities and procedures, especially those designed to help correct specific problems

3. clarifying the reasons procedures are expected to be effective

4. clarifying the nature and purpose of evaluative measures

5. building on previous learning

6. presenting material in ways that focus attention on the most relevant features of what is to be learned (modeling, cueing)

7. guiding motivated practice (for instance, suggesting and providing opportunities for meaningful applications and clarifying ways to organize practice)

8. providing continuous information on learning and performance (as discussed earlier)

9. providing opportunities for continued application and generalization (for example, concluding the process by addressing ways in which the learner can pursue additional, self-directed learning in the area, or can arrange for additional support and direction)

The focus in facilitating learning is not on one procedure at a time. Teachers usually have some overall theory, model, or concept that guides them to certain procedures and away from others. In general, procedures and content are tightly interwoven, with procedures seen as means to an end. In this connection, it is frequently suggested that learning is best facilitated when procedures are perceived by learners as good ways to reach their goals.

Structure and Working Relationships

There appears to be a belief among some teachers that a tight and controlling structure must prevail it students are to learn. This view is caricatured by the teacher's maxim "Don't smile until Christmas!" Good structure allows for active interactions between students and their environment, and these interactions are meant to lead to a relatively stable, positive, ongoing working relationship. How positive the relationship is depends on how learners perceive the communications, support, direction, and limit setting. Obviously, if these matters are perceived negatively, what may evolve in place of a positive working relationship is avoidance behavior.

Some students-especially those who are very dependent, are uninterested, or who misbehave -do need a great deal of support and direction initially. However, it is essential to get beyond this point as soon as possible.

As long as a student does not value the classroom, the teacher, and the activities, then the teacher is likely to believe that the student requires a great deal of direction. We stress that the less the student is motivated, the more it is necessary to teach and control behavior, and the less successful the whole enterprise of schooling appears to be. Conversely, the more the student is motivated, the less it is necessary to teach and control, and the more likely the student will learn.

To facilitate a positive perception, it is important to allow students to take as much responsibility as they can for identifying the types and degree of support, direction, and limits they require. In providing communication, it is important not only to keep students informed but also to interact In ways that consistently convey a sense of appropriate and genuine warmth, interest, concern, and respect. The intent is to help students "know their own minds," make their own decisions, and at the same time feel that others like and care about them.

To achieve these objectives, a wide range of alternatives must be available for support and direction so students can take as much responsibility as they are ready for. Some students request a great amount of direction; others prefer to work autonomously. Some like lots of help on certain tasks but want to be left alone at other times.

When a continuum of structure is made available and students are able to indicate their preferences, the total environment appears less confining. Although we see this as positive, it does tend to make many observers think they are seeing an *open classroom or open structure, as* these terms are widely understood. This is not necessarily the case. The main point of personalizing structure is to provide a great deal of support and direction for students when they need it and to avoid creating a classroom climate that is experienced by students as fight and controlling, Such an approach is a great aid in establishing positive working relationships.

The idea of motivated learning and practice is not without its critics: "Your points about motivation sound good. I don't doubt that students enjoy such an approach; it probably even increases attendance. But-that's not the way it really is in the world. People need to work even when it isn't fun, and most of the time work isn't fun. Also, if people want to be good at something, they need to practice it day in and day out, and that's not fun! In the end, won't all this emphasis on motivation spoil people so that they won't want to work unless it's personally relevant and interesting?"

Learning and practice activities may be enjoyable. But even if they are not, they can be viewed as worthwhile and experienced as satisfying. We recognize that there are many things people have to do in their lives that will not be viewed and experienced in a positive way. How we all learn to put up with such circumstances is an interesting question, but one for which psychologists have yet to find a satisfactory answer. It is doubtful, however, that people have to experience learning basic knowledge and skills as drudgery in order to learn to tolerate boring situations!

In response to critics of motivated practice, those professionals who work with learning problems stress the reality that many students do not master what they have been learning because they do not pursue the necessary practice activities. Thus, at least for individuals experiencing learning problems, it seems essential to facilitate motivated practice.

One of the most powerful factors keeping a person on a task is the expectation of feeling some sense of satisfaction when the task is completed. For example, task persistence results from the expectation that one will feel smart or competent while performing the task-or at least will feel that way after the skill is

Beyond having potential for preventing and correcting a full range of learning problems, the personalized, sequential, and hierarchical approach outlined here is seen as having promise for identifying different types of learning problems and for detecting errors in diagnosis. For example, when only personalization based on capability and motivation is needed to correct a learning problem, it seems reasonable to suggest that the individual does not have a learning *disability*. At the same time, when a highly mobilized individual still has extreme difficulty in learning, the hypothesis that the person has a disability seems safer. (In our work, personalization is seen as a necessary step in facilitating valid identification of Type 1, II, and III learning problems.)

From the foregoing perspective, concerns arise about research applications that encourage an overemphasis on narrowly focused assessment and remedial approaches in efforts to correct the wide range of learning problems found in public schools. For example, applied ideas for assessing and fostering development of language and cognitive abilities (e.g., phonological, executive function, writing, and mathematics skills) are appropriate and invaluable; however, an overemphasis on remedying these areas of development could have the same unfortunate consequences as the historic overemphasis on remedying problems related to visual-spatial abilities. That is, when specific areas for remediation are over-stressed, other areas tend to be de-emphasized, resulting in a narrowing of curriculum and a fragmentation of instruction.

More Time for Personal Instruction

Two major ways to increase time for individual work, especially with those having trouble, are to
>   (a) increase the pool of people and technical resources for providing instruction

>   (b) reduce class size

When the first approach is taken, the focus often is on offering tutorial help.

Tutoring

Based on a research review of one-to-one tutoring, Wasik and Slavin (1990) concluded that "One-to-one tutoring of low-achieving primary-grade students is without a doubt one of the most effective instructional innovations available." (p.22) They caution, however, that there is no magic involved."...for tutoring to be maximally effective, it must improve the quality of instruction, not only increase the amount of time, incentive, value, and appropriateness to students' needs." (25)

> The competence of the tutor in establishing a positive working relationship with the student and knowing how to help the student learn determines the quality of instruction. In this regard, it is relevant to note that there are major variations in the way tutoring is provided. Tutors may be volunteers or paid; may be peers, older students, adult nonprofessionals, paraprofessionals, or professionals – or may be a computer (see exhibit). Tutoring can vary in where it takes place (in or out of the classroom), when it is offered (during or after school hours), how long a session is, how often it is given, and whether it is provided individually or in a small group.

One particularly ambitious and comprehensive example of an academic tutoring apprach is reported by Melaragno (1976). Through a project called the "Tutorial Community," cross-age and same-age tutoring was introduced as a major component in an elementary school's instrucitonal program. The approach stressed four types of tutoring:

> (1) *intergrade tutoring*, in which upper grade students tutor primary student;
> (2) *interschool tutoring*, in which junior high students teach upper grade elementary students;
> (3) *inter (and intra) class tutoring*, in which students at the same grade level assist each other;
> (4) *informal tutoring*, in which older students serve as playleaders for younger students on the playground, help with projects, and go along field trips.

The concept of a tutorial community conceives of tutoring as more than a supplement for instruction or remediation. Tutoring becomes a means by which the entire student body can aid and be aided and a sense of community can be established.

Computer as Tutor

Computer-assisted instruciton has become a much more feasible aide with the increasing availability of personal computers and promising programs. Obviously, computer programs have all the advantages and most of the disadvantages of direct instruction. That is, they can assess needs, provide tasks that are at an appropriate develpmental level, allow students to proceed at their own pace, provide feedback on performance, and record progress. And initially, they seem to have some value in motivating students. However, after the novelty wears off, the relentless emphasis on skill instruction can become tedious. Also, if a student doesn't understand an underlying concept, the programs are not designed to deal with the problem.

Programs are available to help a student learn and practice basic academic skills and problem solving; some of these are in the form of computer game to enhance their motivational value. In additon, use of word processing programs provide a student the opportunity to prepare some written assgnments with greater ease. More importantly, access to the computer for pleasure and creative writing can help a student pursue personal interests while obtainting valuable language experience. Even computerized games have been found to have promise in facilitating basic congnitive devlopment.

Computers obviously are a powerful tool. As with all tools, they can be misused. It is up to the teacher to be certain a good program is chosen and is used no longer than is appropriate and productive.

Reducing class size

Tutoring also is the linchpin of a multifaceted elementary school approach develped by Slavin and his colleagues (i.e., *Success for All and Roots and Wings*). However, another major aspect of the program is reducing class size. The program includes an emphasis on one-to-one tutoring in reading, research-based reading methods carried out with a reduced class size, frequent assessment, enhanced preschool and kindergarten programs, family support, and other interventions to prevent learning problems. With respect to the tutoring, certified and experienced teachers are use. They take a student out of class for 20 minutes during social studies and work to support the reading curriculum.

> During regular reading periods, the tutors become additional reading teachers so that class size is reduced to 15 students. In effect, this can be seen as a form of team-teaching – which is a time honored way of reducing the number of students a teacher must instruct at a given time. It also adds some flexibility in terms of accommodating students' individual differences.

(It also is worth noting that students in the Success for All program are grouped for reading instruction according to reading level rather than age or grade. Moreover, the program emphasizes cooperative learning activities built around partner reading. The curriculum emphasis for kindergarten and first grade is on language skills, auditory discrimination, sound blending, and use of phonetically regular minibooks.)

> The idea of reducing class size, of course, is controversial because of the costs involved. Odden (1990) offers a policy-oriented analysis of research related to the cost-effectiveness of reducing class size as a way of enhancing instructional effectivenesss. He concludes that reducing class size is not warranted throughout a school system because it would cost more than it would accomplish. However, reductions are seen as indicated for targeted populations in order to allow for individual or small group work and for smaller classes related to teaching basics such as language arts/reading. In paritcular, reduced class size is seen as a promsing way to help elementary school students at the first signs that they are having learning and behavior problems.

Remediation

Remediation is an extension of general efforts to facilitate learning. Thus, before a remedial focus is introduced, the best available nonremedial instruction will be tried. Optimally, this means trying procedures to improve the match between the program and a learner's current levels of motivation and development. A significant number of learning problems may be corrected and others prevented through optimal, nonremedial instruction.

> There does come a time, however, when remediation is necessary for some individuals. In this section we sketch the criteria for deciding who needs it, the general features of remediation, and the focus and form of remedial methods. For those of you ready to move on to detailed discussions of remedial methods, there are references at the end of the unit.

When Is it Needed?

Stated simply, an individual needs remediation when the best nonremedial procedures are found to be ineffective. As we have suggested, remediation is used for motivation problems and for those who have difficulty learning or retaining what they have learned.

> Because remediation in all areas usually is unnecessary, as much learning as possible will probably continue to be facilitated with nonremedial approaches. Besides facilitating learning, such procedures provide an essential foundation and context for any remedial strategy, especially if they are valued by the learner.

What is Inclusion?

 "Inclusion is the practice of educating children who have disabilities in classes together with their nondisabled peers. Although the term "inclusion" does not appear in any federal law, it has unified efforts to broaden educational opportunities under three different federal laws. Some efforts have used the language of the Individuals with Disabilities Education Act, which requires that children be educated in the "least restrictive environment" with whatever supplementary aids and services are needed so that the child can benefit. Others have used the language of regulations implementing Section 504 of the Rehabilitation Act, which gives a preference to the school and classroom the child would otherwise attend if not disabled. The Americans with Disabilities Act has similar provisions. Recent federal court decisions in New Jersey and California have interpreted the law to mean that even children with severe disabilities must, in most circumstances, be included in their local school classrooms with nondisabled peers.

. . . whether or not one agrees with those who advocate inclusion, the practice is spreading so rapidly that practical need usually compels educators to inform themselves about what inclusion is and how it is done."

Some programs are no more than nominally inclusive. For example:

1) cluster-site programming, where all the children with disabilities from a wide geographic area are brought to a single school and 'included' in that school's classes;

2) traditional mainstream programming, where children with disabilities can attend classes with their nondisabled peers only if they can 'keep up' with their classmates'   level of performance, and

3) 'dumping,' where children with disabilities are simply placed in general-education classrooms without supportive services.

A truly inclusive program is one that ensures each special education student is "provided with specially designed instruction to meet his or her unique needs. However, unlike 'traditional' special-education models, instead of sending the children to a specialized site . . . the children remain in the schools and classes they would otherwise attend, and the services are brought to them. "

        From J. R. Rogers' (1994) Introduction to *Inclusion: Moving Beyond Our Fears.* One of the *Hot Topics Series* published by Phi Delta Kappa's Center for Evaluation, Development, and Research.

What Makes Remediation Different?

Techniques and materials designated as remedial often appear to be very different from those used in regular teaching. However, the differences often are not as great as appearance suggests. Some remedial practices are simply adaptations of regular procedures. This is even the case with some packaged programs and materials es-pecially developed for problem populations. In general, regular and remedial proce-dures are based on the same instructional models and principles.

Because all teaching procedures are based on the same principles, the question frequently asked: "What's so special about special education?" The answer to this question involves understanding (1) the factors that differentiate remedial from regular teaching, and (2) the spe-cial task of special education.

The following six factors differentiate remedial from regular teaching:

Sequence of application: Remedial practices are pursued after the best available non- remedial practices have been found inadequate.

Teacher competence and time: Probably the most important feature differentiating remedial from regular practices is the need for a competent teacher who has time to provide one-to-one instruction. While special training does not necessarily guarantee such competence, remediation usually is done by teachers who have special training. Establishing an appropriate match for learners with problems is difficult. Indeed, a great deal of this process re-mains a matter of trial and appraisal. Thus there must be additional time to develop an understanding of the learner (strengths, weaknesses, limitations, likes, dislikes). There must also be access to and control over a wide range of learning options.

Outcomes and content: Along with basic skills and knowledge, other content and outcome objectives are often added. These are aimed at overcoming missing prerequisites, faulty learning mechanisms, or interfering behaviors and attitudes.

Processes: Although instructional principles underlying remedial and non-remedial procdures do not differ, remediation usually stresses an extreme application of the principles. Such applications may include reductions in levels of abstraction, intensification of the way stimuli are presented and acted upon and increases in the amount and consistency of direction and support — including added reliance on other resources. Of course, special settings (outside regular classrooms) are not the only places such processes can be carried out.

Resource Costs: Because of the types of factors already cited, remediation is more costly than regular teaching (allocations of time, personnel, materials, space, and so forth).

Psychological Impact: The features of remediation already mentioned are highly visible to students, teachers, and others. Chances are they are seen as "different" and stigmatizing. The psychological impact of remediation is thus likely to have a negative component. The sensitive nature of remediation is another reason it should be implemented only when necessary and in ways that result in the learner's perceiving remediation as a special and posi-tive opportunity for learning.

Special educators also have the responsibility to clarify whether general educators share the same basic concerns. Special educa-tors are asked to take on an additional concern. Their responsibility is to clarify whether general answers to educational matters are ade-quate for everyone and, if not, how the answers should be modified to account for specific subgroups of learners. Until much more is known about how to meet the needs of those who are not well served by regular classroom programs, a role for remedial teaching and special education will certainly remain.

Interfering Behavior

Throughout the 1950s and 1960s, it became evident that remediation, especially in the classroom, was often delayed because so many individuals with learning problems also manifested behavioral problems. Such individuals were frequently described, not only as being learning disabled, but also as hyperactive, distractable, impulsive, behavior disordered, and so forth. Their behavior patterns were seen as interfering with efforts to remedy their learning problems, and the conclusion was that such interfering behaviors would have to be eliminated or minimized in order to pursue remediation. The focus has been on any actions of an individual that compete with the intended focus of remediation.

Besides trying to reduce the frequency of deviant and disruptive actions directly, programs have been designed to alter such behavior by improving

- impulse control
- selective attention
- sustained attention and follow-through

- perseverance
- frustration tolerance
- social awareness and skills

Remediation of Reading Problems

Remedies for dyslexia are still more likely to emanate from cuckoo land than from the research literature. (Stanovich, 1991a, p. 79)

What does the research literature say about remedial reading? A synthesis suggests that in the early- stages of regular reading instruction the emphasis should be on teaching skills for word recognition and decoding (phonics), connecting spoken and written language, and reading for meaning. Moreover, children who are read to and individuals who read a good deal on their own are most likely to become good readers (Adams, 1990; Chall, 1983a, 1983b).

In terms of teaching materials, the emphasis is on appropriate basal texts, supplemented with story and information books. For example, Chall, Jacobs, and Baldwin (1 990) state:

> We do not recommend... a reading program that follows an extreme-one that focuses only on a more highly structured reading system, with little time for reading, -or one that uses only trade books, dropping explicit teaching of skills. (pp. 151-152)

Although research on computer-assisted instruction has been limited, eventually it may be possible to relegate some of the skill instruction to interactive computers. Given a comprehensive approach to regular instruction, what should be done with a student who still has problems learning? Pronouncements based on the research literature are less satisfactory in this regard. Some writers have underscored the importance of mobilizing the learner, notably by use of what has been called the *language experience approach* or an *integrated language approach.* This orientation to teaching reading attempts to build on a learner's cognitive, language, and sociocultural background (Bartoli & Botel, 1988; Fernald, 1943; Stauffer, 1980).

There also is concern about how to deal with areas of vulnerability or dysfunction. It has been suggested that instruction be redesigned for such persons to build on strengths and minimize weaknesses, at least temporarily. For example, if an individual has difficulty making auditory perceptual discriminations, it may be necessary to avoid overrelying on instruction in phonetic analysis. This argument in no way denies the importance of phonological awareness and phonics skills. It simply suggests that some individuals may have to compensate for an auditory perceptual weakness by relying more initially on learning vocabulary through visual or multisensory means. It also suggests that overemphasizing instruction in the area of weakness may negatively affect feelings of competence and create a negative attitude toward reading and schooling.

For those with severe learning problems and learning disabilities, typical classroom approaches to reading instruction require some of the types of modification described in the remedial literature.

Levels of Remediation

Specialized psvchoeducational procedures to facilitate learning can be applied at any of three levels.

Age-appropriate life tasks. Current life tasks involve a variety of basic knowledge, skills, and interests as part of day-by-day living at school, home, work-, and in the neighborhood. These include reading, writing, interpersonal and intrapersonal problem solving, and so forth. At this level, remediation essentially involves reteaching -- but not with the same approach that has just failed. Altemative wavs must be used to present material the student has had difficulty learning. This is accomplished by further modifying activities in ways likelv to improve the match with the leamer's current levels of motivation and capability. Teachers can use a range of environmental factors to influence the match as well as techniques that enhance motivation, sensory intake, processing and decision making, and output.

Prerequisites. At this level, the focus is on identifying missing prerequisites and teaching them. Procedures are the same as those used in facilitating learning related to current life tasks.

Interfering factors. At this level, we must face the possibility of faulty learning mechanisms. A variety of underlying problems have been suggested as interfering with learning. Remedial approaches are designed to overcome such deficiencies by directly correcting the problems or indirectly compensating for them.

Remedial strategies involve no new principles of instruction. What makes such approaches appear different is their rationale, the extreme degree and consistency with which they must be applied, and their application on levels of functioning other than current life tasks. How well remediation works and why it does -when it does - remains unclear. What may make any remedial procedure work is the fact that it is different from those a student has already tried and found ineffective. Special procedures have the benefit of being novel and thus having motivation and attention-inducing value.

As a general stance regarding remedial activity, we concur that learning problems and learning disabilities "cannot be corrected or 'cured' by a specific teaching method or training technique. It is imperative that teachers have a wide range of instructional materials and techniques at their disposal and that they are imaginative and flexible enough to adapt these to the 'specific needs of their pupils" (Koppitz, 1973, p. 137).

We would add, however, that effective flexibility and Imaginativeness in facilitating learning stem from a sound understanding of what is involved in personalizing regular and remedial instruction.

Motivation as an Intervention Concern

If interventions are to be a good fit with the learner, they must pay as much attention to matching motivation as they do to matching current capabilities. From a cognitive-affective theoretical viewpoint, there are four very good reasons to make motivation a primary consideration in designing instruction.

(1) Motivation is a key antecedent condition. That is, it is a prerequisite to functioning. Poor motivational readiness may be (a) a cause of inadequate and problem functioning, (b) a factor maintaining such problems, or (c) both. Thus, strategies are called for that can result in enhanced motivational readiness (including reduction of avoidance motivation) – so that the student is mobilized to participate and learn.

(2) Motivation is a key ongoing process concern. Processes must elicit, enhance, and maintain motivation – so that the student stays mobilized. For instance, a student may value a hoped for outcome but may get bored with the processes used; also many students are motivated at the beginning but do not maintain their motivation.

(3) Conditions likely to lead to negative motivation and avoidance reactions must be avoided or at least minimized. Of particular concern are activities that youngsters perceive as unchallenging/uninteresting, overdemanding, or overwhelming and a structure that seriously limits their range of options or that is overcontrolling and coercive. Examples of conditions that can have a negative impact on a student's motivation are sparse resources, excessive rules, criticism, confrontation, and a restrictive daily overemphasis on solving problems.

(4) Enhancing intrinsic motivation is a basic outcome concern. A student motivated to improve in a particular area of functioning may continue to have negative attitudes about the area and thus only use newly acquired knowledge and skills under duress. Responding to this concern requires strategies t enhance stable, positive attitudes that mobilize the student to use what is learned in setting outside the school context and after the special intervention is terminated.

A Societal Approach to Intervention

Beyond the classroom, an even broader perspective is evolving regarding research and practice for problems related to learning and behavior. Policymakers increasingly are recognizing the importance of multifaceted approaches that account for social, economic, political, and cultural factors. The potential array of preventive and treatment programs is extensive and promising. The range can be appreciated by grouping them on a continuum from prevention through treatment of chronic problems (see exhibit on the next page). Categorically, the activities encompass (1) primary prevention to promote and maintain safety and physical and mental health (beginning with family planning), (2) preschool programs, (3) early school adjustment programs, (4) improvement of ongoing regular support, (5) augmentation of regular support, (6) specialized staff development and interventions prior to referral for special help, and (7) system change and intensive treatments. Examples of relevant interventions in each category are cited in the accompanying exhibit.

Unfortunately, implementation of the full continuum of programs with an extensive range of activities does not occur in most communities. Moreover, what programs there are tend to be offered in a fragmented manner.

Policymakers are coming to see the relationship between limited intervention efficacy and the widespread tendency for complementary programs to operate in isolation. For in- stance, physical and mental health programs generally are not coordinated with educational programs; a youngster identified and treated in early education programs who still requires special support may or may not receive systematic help in the primary grades; and so forth. Failure to coordinate and follow through, of course, can be counterproductive (e.g., under- mining immediate benefits and working against efforts to reduce subsequent demand for costly treatment programs). Limited efficacy seems inevitable as long as interventions are carried out in a piecemeal fashion. Thus, there is increasing interest in moving beyond piecemeal strategies to provide a comprehensive, integrated, and coordinated program- matic thrust.

The range of programs cited in Figure 2 can be seen as integrally related, and it seems likely that the impact of each could be exponentially increased through integration and coordination. Indeed, a major breakthrough in the battle against learning and behavior problems may result only when the full range of programs are implemented in a comprehensive and coordinated fashion.

From Primary Prevention to Treatment of Serious Problems: A Continuum of Community-School Programs to Address Barriers to Learning and Enhance Healthy Development

Intervention Continuum	*Examples of Focus and Types of Intervention* (Programs and services aimed at system changes and individual needs)
Primary prevention	**1. Public health protection, promotion, and maintenance to foster opportunities, positive development, and wellness**

1. **Public health protection, promotion, and maintenance to foster opportunities, positive development, and wellness**
   - economic enhancement of those living in poverty (e.g., work/welfare programs)
   - safety (e.g., instruction, regulations, lead abatement programs)
   - physical and mental health (incl. healthy start initiatives, immunizations, dental care, substance abuse prevention, violence prevention, health/mental health education, sex education and family planning, recreation, social services to access basic living resources, and so forth)

2. **Preschool-age support and assistance to enhance health and psychosocial development**
   - systems' enhancement through multidisciplinary team work, consultation, and staff development
   - education and social support for parents of preschoolers
   - quality day care
   - quality early education
   - appropriate screening and amelioration of physical and mental health and psychosocial problems

3. **Early-schooling targeted interventions**
   - orientations, welcoming and transition support into school and community life for students and their families (especially immigrants)
   - support and guidance to ameliorate school adjustment problems
   - personalized instruction in the primary grades
   - additional support to address specific learning problems
   - parent involvement in problem solving
   - comprehensive and accessible psychosocial and physical and mental health programs (incl. a focus on community and home violence and other problems identified through community needs assessment)

4. **Improvement and augmentation of ongoing regular support**
   - enhance systems through multidisciplinary team work, consultation, and staff development
   - preparation and support for school and life transitions
   - teaching "basics" of support and remediation to regular teachers (incl. use of available resource personnel, peer and volunteer support)
   - parent involvement in problem solving
   - resource support for parents-in-need (incl. assistance in finding work, legal aid, ESL and citizenship classes, and so forth)
   - comprehensive and accessible psychosocial and physical and mental health interventions (incl. health and physical education, recreation, violence reduction programs, and so forth)
   - Academic guidance and assistance
   - Emergency and crisis prevention and response mechanisms

5. **Other interventions prior to referral for intensive and ongoing targeted treatments**
   - enhance systems through multidisciplinary team work, consultation, and staff development
   - short-term specialized interventions (including resource teacher instruction and family mobilization; programs for suicide prevention, pregnant minors, substance abusers, gang members, and other potential dropouts)

6. **Intensive treatments**
   - referral, triage, placement guidance and assistance, case management, and resource coordination
   - family preservation programs and services
   - special education and rehabilitation
   - dropout recovery and follow-up support
   - services for severe-chronic psychosocial/mental/physical health problems

Intervention Continuum labels (left column):
- Primary prevention
- Early-after-onset intervention
- Treatment for severe/chronic problems

Clearly, there is much work to be done in expanding the range of individual differences accommodated in the classroom as a way to enhance instruction. Those who view the problem of improving instruction in cultural and sociopolitical terms argue that a satisfactory solution requires a fundamental transformation in the nature of public education. Minimally, the call has been for making schools truly pluralistic institutions. The achievement of such a goal, of course, requires development of sociopolitical strategies and a sociopolitical reform agenda.

As the world around us is changing at an exponential rate, so must the way we approach learning problems. Over the coming decade, we all will be called upon to play a role in doing something about the many individuals who have trouble learning academic skills. In responding to this call, it will be essential to have a broad under-standing of what causes learning problems (including learning disabilities) and what society in general and schools in particular need to do to address such problems

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Resource Aids

The nature and scope of resource materials related to learning problems is immense. What follows essentially are some references to places start in looking for information and materials to address learning problems.

Overview Texts

On the following pages are the table of contents from two general texts that focus specifically on learning problems and learning disabilities and fourth that approaches learning and behavior problems in terms of children at-risk. The first text takes a systems' orientation that views learning problems from the perspective of school learning being a function of both the setting and the learner and stresses intervention designed to effect major systemic changes to prevent and ameliorate learning problems.

H.S. Adelman & L. Taylor (1993).
Learning Problems & Learning Disabilities: Moving Forward.
Pacific Grove, CA: Brooks/Cole.

Slavin, Robert E.; Karweit, Nancy L.; Madden, Nancy A. (1989).
Effective programs for students at risk. **Boston, MA: Allyn & Bacon, Inc.**

(From the preface) This book was written to provide the best available information on what is known now about effective programs for students at risk of school failure, particularly those who are currently served in compensatory and special education programs. The message of this book is that we know much more than we are currently using in programs for students at risk, and that while much more remains to be learned, we know how to proceed to discover how best to prevent and remediate learning deficits. We know that the tragic progression of events that begins with poor achievement in the elementary grades is not an inevitable consequence of low socioeconomic background, poor socialization, or inadequate skills at school entry. We know that well-designed school programs can keep students from starting in that descending spiral. Reform of compensatory and special education to ensure all students an adequate level of basic skills in the early grades will require a major restructuring, not fine-tuning, of existing programs. As much as the need for restructuring is becoming apparent to educators, the discussion of how to proceed is only beginning. This book helps to lay the empirical and intellectual groundwork for the changes that must come in programs for students at risk of school failure.

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J. Lerner (1997). Learning Disabilities.*Theories, Diagnosis, & Teaching Strategies (7th ed.).* Boston: Houghton-Mifflin.

Preface

Methods for Specific Areas of Concern

See the preceding basic texts for overviews.

• *Re. **Language and Psycholinguistics,*** see
>   *How to Increase Reading Ability A Guide to Developmental and Remedial Methods.*
>>   A.J. Harris & E.R. Sipay (9th ed.). New York: Longman, 1990.

>   Approaches to Beginning Reading.
>>   R.C. Aukerman. New York: Wiley, 1994.

>   *Reading/Learning Disability: An Ecological Approach.*
>>   J.S. Bartoli & M. Botel. New York: Teachers College Press, 1988.

• *Re. Math,* see
>   *Children's Arithmetic: How They Learn it and How You Teach it*
>>   H.P. Ginsburg (2nd ed.). Austin, TX: PRO-ED, 1989.

>   *Teaching Mathematics to the Learning Disabled.*
>>   N.S. Bley & C.A. Thorton (3rd ed.). Austin, TX: PRO-ED, 1994.

>   *Problem Solving, Reasoning, & Communicating, K-8: Helping Children Think Mathematically.*
>>   A.J. Baroody. Macmillan, 1993.

-*Re. **Cognitive Prerequisites, Learning Strategies, and Nigher Order Thinking,*** see
>   *Teaching Decision Making to Adolescents.*
>>   J. Baron & R.V. Brown (Eds.). Hillsdale, NJ: Erlbaum, 1991.

>   *Reading, Thinking and Concept Development.*
>>   T.L. Harris & E.J. Cooper (Eds.). New York: College Board, 1985.

>   *Teaching Adolescents with Learning Disabilities* (2nd ed.).
>>   D.D. Deshler, E.S. Ellis, & B.K. Lenz. Denver: Love Pub., 1996.

-*Re. **Social and Emotional Functioning, Motivation, and Interfering Behavior,*** see
>   *Se~f-regulation of Learning and Performance: Issues and Educational Applications.*
>>   Dale H. Schunk & Barry J. Zimmerman (Eds.). Hillsdale, NJ: L. Erlbaum, 1994.

>   *Building Interpersonal Relationships through Talking, Listening, Communicating.* (2nd).
>>   J. S. Bormaster & C.L. Treat. Austin, TX: Pro-Ed, 1994.

>   *Eager to Learn: Helping Children Become Motivated and Love Learning*
>>   R..J Wlodkowski & J.H. Jaynes. San Francisco: Jossey-Bass, 1991.

-*Re. **Motoric Development,*** see
>   *Adapted physical education in the mainstream.*
>>   B.J. Cratty (2nd ed.). Denver, CO: Love, 1988.

Internet Resources on Learning Problems
& Learning Disabilities

The Internet is a valuable tool when trying to find information on learning problems and learning disabilities. For a start, try using a search engine such as Yahoo and typing in the words "learning and disabilities" or "learning disabilities". This will help you find relevant websites. Many of the websites you find will have "links" to other websites which cover similar topics. We have listed some below.

ACES - Area Cooperative Educational Services
> Address: http://www.aces.k12.ct.us/
> Description: This homepage of the ACES (Area Cooperative Educational Services) has many valuable links including EASI Disability Website and the ACES Electronic Phone Book.

Americans with Disabilities Act Document Center
> Address: http://janweb.icdi.wvu.edu/kinder/#nidrr
> Description: This homepage has information on ADA Statute, Regulations, ADAAG (Americans with Disabilities Act Accessibility Guidelines), Federally Reviewed Tech Sheets, and Other Assistance Documents.

California State Resources Literacy and Learning Disabilities
> Address: http://novel.nifl.gov/nalld/ca.html#top
> Description: This page has an index that includes pertinent information such as the Learning Disabilities Association of California and the State Literacy Resource Center. It also lists addresses and phone numbers of many state agencies related to learning problems and learning disorders.

Consumer Information Center
> Address: http://www.pueblo.gsa.gov
> Description: This Center publishes a catalog with a listing of booklets from several federal government agencies. Relevant works include "Learning Disability: Not Just a Problem Children Outgrow" and "Plain Talk About Children with Learning Disabilities."

Public Citizen
> Address: http://www.citizen.org/
> Description: This consumer organization, which was founded by Ralph Nader in 1971, fights for the consumer in Washington. Looking up the group's "Health Research Group" may be useful when researching learning problems and disabilities.

Learning Disabilities Association
> Address: http://www.vcu.edu/eduweb/LDA/
> Description: This homepage includes information on the association and how to become a member. It also tells of upcoming LDA conferences, legislative updates, and links to other related resources.

AskEric
> AskEric is a very useful Internet resource that allows you to search the ERIC Clearinghouses. On the following page is a guide to using AskERIC. For a discussion of the ERIC Clearinghouses, see the references section of this introductory packet.

Brief Research Syntheses Available from the ERIC Clearinghouses.

The following is a brief sampling of ERIC Digests (research syntheses) related to Learning Problems and Learning Disabilities. They are available in libraries, over the Internet, or directly from the Educational Resources Information Center (ERIC) by phone, 1-800-LET-ERIC.

For information on searching for and accessing ERIC documents over the Internet, see the Internet Resources section of this introductory packet.

An example of a complete digest is at the end of this Introductory Packet.

? 1993 – ERIC Digest, number E516 (ED 352779TX) Learning Disabilities
? 1995 – ERIC Digest, number FL 022 988 We Can Talk: Cooperative Learning in the Elementary ESL Classroom
? 1995 – ERIC Digest, number FL 023 266 Cross-age Tutoring in the Literacy Club
? 1989 – ERIC Digest, number ED 314 917 College Planning for Students with Learning Disabilities

For a systematic critical look at the topic of learning disabilities, see

The Learning Mystique: A Critical Look at "Learning Disabilities"
Gerald Coles. New York: Pantheon Books, 1987.

Mapping Classrooms

The emphasis here is on enhancing classroom-based efforts to enable learning by increasing teacher effectiveness for preventing and handling problems in the classroom. This is accomplished by providing personalized help to increase a teacher's array of strategies for working with a wider range of individual differences (e.g., through use of accommodative and compensatory strategies, peer tutoring and volunteers to enhance social and academic support, resource and itinerant teachers and counselors in the classroom). Through classroom-focused enabling programs, teachers are better prepared to address similar problems when they arise in the future. Anticipated outcomes are increased mainstream efficacy and reduced need for special services.

Please indicate all items that apply.

	Yes	**Yes but more of this is needed**	**No**	**If no, is this something you want?**
A. What programs for *personalized professional development* are currently at the site?				
1. Are teachers clustered for support and staff development?	___	___	___	___
2. Are models used to provide demonstrations?	___	___	___	___
3. Are workshops and readings offered regularly?	___	___	___	___
4. Is consultation available from persons with special expertise such as				
a. members of the Student Success Team?	___	___	___	___
b. resource specialists and/or special education teachers?	___	___	___	___
c. members of special committees?	___	___	___	___
d. bilingual and/or other coordinators?	___	___	___	___
e. counselors?	___	___	___	___
f. other? (specify) _____	___	___	___	___
5. Is there a formal mentoring program?	___	___	___	___
6. Is there staff social support?	___	___	___	___
7. Is there formal conflict mediation/resolution for staff?	___	___	___	___
8. Is there assistance in learning to use advanced technology?	___	___	___	___
9. Other (specify) _____	___	___	___	___
B. What supports are available in the classroom to help students identified as having problems?				
1. Are "personnel" added to the class (or before/after school)?	___	___	___	___
If yes, what types of personnel are brought in:	___	___	___	___
a. aides (e.g., paraeducators; other paid assistants)?	___	___	___	___
b. older students?	___	___	___	___
c. other students in the class?	___	___	___	___
d. volunteers?	___	___	___	___
e. parents?	___	___	___	___
f. resource teacher?	___	___	___	___
g. specialists?	___	___	___	___
h. other? (specify)_____	___	___	___	___
2. Are materials and activities upgraded to				
a. ensure there are enough basic supplies in the classroom?				
b. increase the range of high-motivation activities (keyed to the interests of students in need of special attention)?	___	___	___	___
c. include advanced technology?	___	___	___	___
d. other? (specify) _____	___	___	___	___
3. Are regular efforts to foster social and emotional development supplement?	___	___	___	___

C. What is done to assist a teacher who has difficulty with limited English speaking students?

	Yes	Yes but more of this is needed	No	If no, is this something you want?
1. Is the student reassigned?	___	___	___	___
2. Does the teacher receive professional development related to working with limited English speaking students?	___	___	___	___
3. Does the bilingual coordinator offer consultation?	___	___	___	___
4. Is a bilingual aide assigned to the class?	___	___	___	___
5. Are volunteers brought in to help (e.g., parents, peers)?	___	___	___	___
6. Other? (specify) _____	___	___	___	___

D. What types of technology are available to the teachers?

	Yes	Yes but more of this is needed	No	If no, is this something you want?
1. Are there computers in the classroom?	___	___	___	___
2. Is there a computer lab?	___	___	___	___
3. Is computer assisted instruction offered?	___	___	___	___
4. Are there computer literacy programs?	___	___	___	___
5. Are computer programs used to address ESL needs?	___	___	___	___
6. Does the classroom have video recording capability?	___	___	___	___
7. Is instructional TV used in the classroom?				
c. videotapes?	___	___	___	___
d. PBS?	___	___	___	___
8. Is there a multimedia lab?	___	___	___	___
9. Other? (specify)_____	___	___	___	___

E. What curricular enrichment and adjunct programs do teachers use?

	Yes	Yes but more of this is needed	No	If no, is this something you want?
1. Are library activities used regularly?	___	___	___	___
2. Is music/art used regularly?	___	___	___	___
3. Is health education a regular part of the curriculum?	___	___	___	___
4. Are student performances regular events?	___	___	___	___
5. Are there several field trips a year?	___	___	___	___
6. Are there student council and other leaders opportunities?	___	___	___	___
7. Are there school environment projects such as				
a. mural painting?	___	___	___	___
b. horticulture/gardening?	___	___	___	___
c. school clean-up and beautification?	___	___	___	___
d. other? (specify)_____	___	___	___	___
8. Are there special school-vide events such as				
a. clubs and similar organized activities?	___	___	___	___
b. publication of a student newspaper?	___	___	___	___
c. sales events (candy, t shirts)?	___	___	___	___
d. poster contests?	___	___	___	___
e. essay contests?	___	___	___	___
f. a book fair?	___	___	___	___
g. pep rallies/contests?	___	___	___	___
h. attendance competitions?	___	___	___	___
i. attendance awards/assemblies?	___	___	___	___
j. other? (specify) _____	___	___	___	___
9. Are guest contributors used (e.g., outside speakers/performers)?	___	___	___	___
10. Other (specify)?_____	___	___	___	___

	Yes	Yes but more of this is needed	No	If no, is this something you want?

F. What programs for temporary out of class help are currently at the site?

    1. Is there a family center providing student and family assistance?   ___ ___ ___ ___

    2. Are there designated problem remediation specialists?   ___ ___ ___ ___

    3. Is there a "time out" room?   ___ ___ ___ ___

    4. Other? (specify) _____   ___ ___ ___ ___

G. What programs are used to train aides, volunteers, and other "assistants" who come into the classrooms to work with students who need help?

_____ _____
_____ _____
_____ _____
_____ _____

H. Which of the following can teachers request as special interventions?

    1. Family problem solving conferences   ___ ___ ___ ___

    2. Exchange of students as an opportunity for improving the match and for a fresh start   ___ ___ ___ ___

    3. Referral for specific service   ___ ___ ___ ___

    4. Other (specify) _____   ___ ___ ___ ___

I   Is there ongoing training for team members concerned with the area of Classroom-Focused Enabling?   ___ ___ ___ ___

J. Please indicate below any other ways that are used at the school to assist a teacher's efforts to address barriers to students' learning.

_____ _____
_____ _____
_____ _____
_____ _____

K. Please indicate below other things you want the school to do to assist a teacher's efforts to address barriers to students' learning.

_____ _____
_____ _____
_____ _____
_____ _____