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ABSTRACT
        Described are components of Project FAST (Functional
Analysis Systems Training) a nationally validated project to provide
more effective educational and support services to learning
disordered children and their regular elementary classroom teachers.
The program is seen to be based on a series of modules of delivery
systems ranging from mainstream teachers working with building
principals and parents (module 1) to consultants, specialists from
the community, and community agencies (module 3). Stressed is the
importance of training teachers in the following developmental
objectives: observation of how the child goes about learning,
analysis of what each task demands, analysis of the developmental
level, prescription of the specific educational program, organization
of the classroom, helping children in directing their own behavior
appropriately, being receptive to support help, teamwork with peers
and teamwork with parents. Explained is a model of a functional
learning system which involves various information processing modes,
activation through proprioception, symbolic coding of information, a
scanning mechanism, and sensory feedback mechanisms. Also included
are a flow chart of project implementation, and forms to use at the
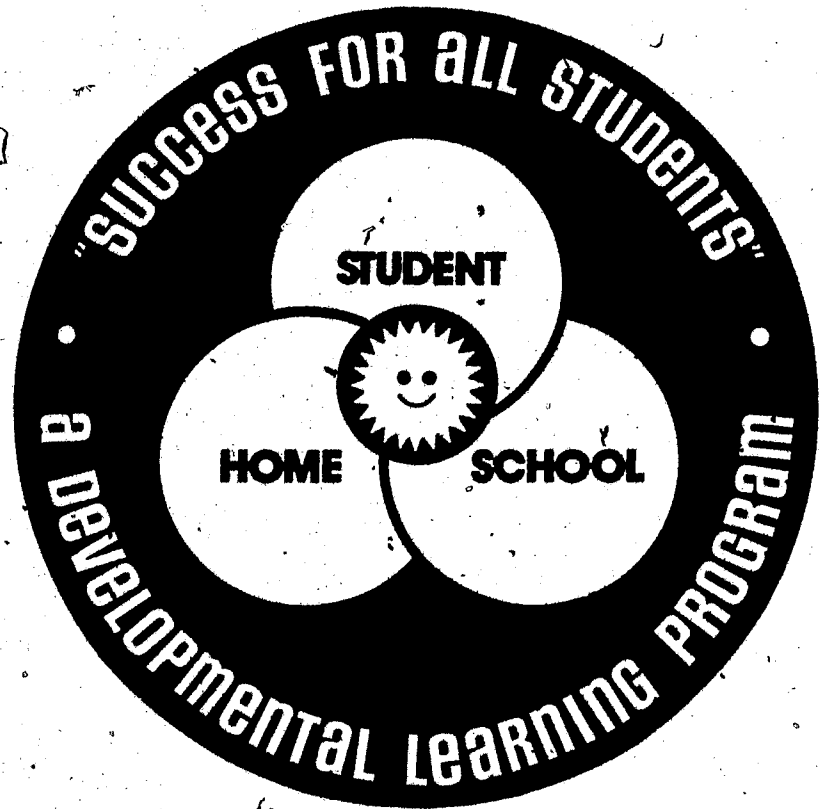individual school or school district level. (DB)

PROJECT FASFASFAST

"SUCCESS FOR ALL STUDENTS"

a DEVELOPMENTAL LEARNING PROGRAM

STUDENT

HOME   SCHOOL

ESSEXVILLE-HAMPTON PUBLIC SCHOOLS
ESSEXVILLE, MICHIGAN 48732

A PROJECT OF

THE ESSEXVILLE-HAMPTON PUBLIC SCHOOLS

ESEA, TITLE III

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AN ECONOMICAL SYSTEM FOR THE DELIVERY OF EDUCATIONAL SERVICES TO CHILDREN WITH LEARNING DISORDERS WITHIN THE REGULAR CLASSROOM.

FAST's GOALS

Under usual circumstances, the regular classroom teacher is unable to find solutions to a wide variety of learning problems presented by children within the regular classroom. The mainstream teacher has sent "problem" children down the hall to various specialists who worked with those children on a one-to-one basis for short periods of time. Despite attempts at conferencing between specialists and teachers, many mainstream teachers did not have a comprehensive understanding of the total child nor of the various educational strategies needed to help the child overcome his problem.

Project FAST is a nationally validated project devised to meet two primary tasks: (1) provide more effective educational service to learning-disordered children through systematically training the mainstream teacher to become aware of the totality of a given child and to implement solutions to that child's problems on an ongoing basis; and (2) provide more efficient delivery of support service to the mainstream teacher in her/his efforts to help children overcome their problems and fulfill their optimal learning potential.

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Project FAST conceptualizes a delivery of educational services in terms of modules of school personnel (see figure one) who are individually capable of delivering ongoing specialized services to the individual child. In the first service module, it is more effective and efficient for the mainstream teacher to have the training to deliver the bulk of service to most of the children within a classroom. Through retraining, the building principal then becomes the first line of support to the teacher in delivering comprehensive service to the vast majority of children.

In the second service module are school personnel who provide additional support to the teacher and the building principal. Module two is formed by retraining school psychologists, speech pathologists, and reading specialists so that they provide two-fold service: (1) generalized support two mainstream teachers in terms of classroom management and enrichment, identifying the causes of individual learning problems, aiding in the implementation of specific educational prescriptions, etc., and (2) to be consultants to other support persons in accord with their background of disciplinary training, focusing on a given child's particular area of need with which another support person may not be familiar. By retraining specialist personnel to fulfill these two missions, service from those persons becomes more economical. Specialists seeing and helping a greater number of teachers in turn provides help to a much larger number of children, making his service a more effective use of specialists.

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Module I

Mainstream
Teachers

Building Principals

Parents

Module II

School Psychologists

Reading Specialists

Speech Pathologists

Social Workers

Module III

Consultants

Specialists
from the Community

Community Agencies
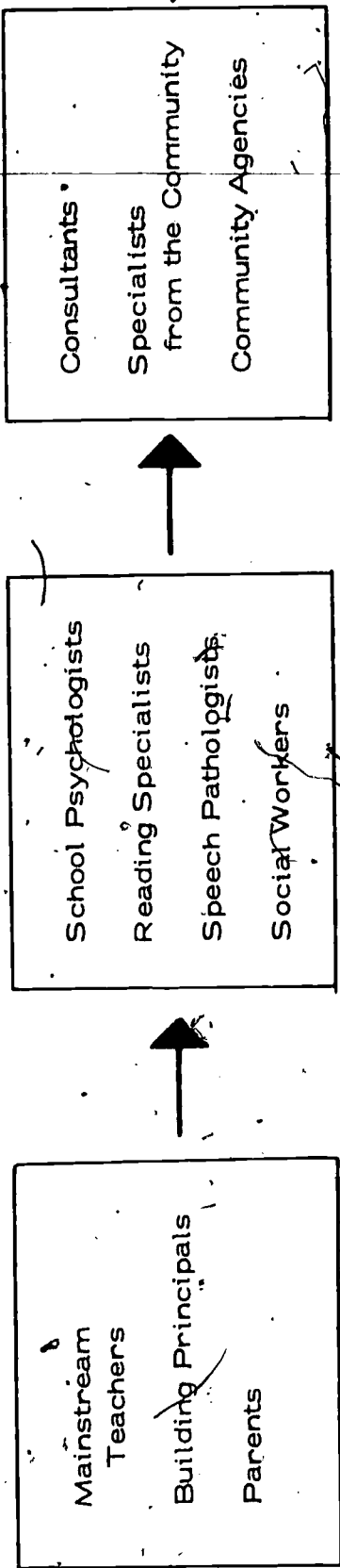
Figure 1
Modules for Delivering Educational Services
to Students

Personnel from module two visit each classroom at least once a week. This facilitates rapport between the support staff and the mainstream classroom teacher and also facilitates a reduction in the time lag between the identification of and the treatment for the learning disabled child. Since the support staff is in the classroom at least weekly, his recommendations for treatment are made in the context of the teacher's abilities and the classroom setting. A serious problem which existed prior to the implementation of the Project was the inability of the classroom teacher to carry out the recommendations of the specialists. This problem has been resolved by Project FAST.

In the third service module, consultants and specialists from the community are used to help find solutions to those relatively few problems for which personnel in Modules I and II cannot find satisfactory solutions.

The full innovativeness of FAST is that it develops a total, comprehensive delivery system with the synergistic effect of teachers, parents, consultants, and administrators targeting in a systematic manner on the developmental and learning processes of the specific child. Because it is a delivery system focused on the developmental and learning process, the teacher's development, the support personnel, the parent involvement, the utilization of learning materials, the organization of the classroom, the sequencing of instructional modules, and the media of experiencing learning all converge on the same objective:

To accommodate almost all students, - slow and fast - as they progress toward optimal functioning in the regular classroom learning environment in an ongoing diagnostic, prescriptive, and evaluative process.

FAST's RATIONALE

In view of our burgeoning knowledge and technology, a delivery
system of education which is fact-centered is neither effective nor
efficient. The delivery system instead must become centered on the
processes by which children learn. For that to become a reality, the
system must enable classroom teachers to have the tools they need to
understand the learning process even when it is disabled. That requires,
first of all, training in the understanding and application of nine
basic teaching tools (see figure two). Second, it requires that teachers
have a reliable roadmap of the learning system (see figure three).
Third, it requires a delivery system which incorporates a change
process (see figure four).

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FIGURE 2

THE TEACHER'S TOOL KIT*

1. Observing how students go about learning.

2. Analyzing what each task really demands of a student.

3. Deciphering the developmental level of the various skills a student needs to build for successful learning.

4. Prescribing the educational program a student needs next for his best development.

5. Organizing the classroom to promote active participation in learning.

6. Helping students to direct their own behavior appropriately.

7. Applying support help meaningfully.

8. Sharing teaching concepts and strategies so that more students are benefitted.

9. Teaming with parents to provide their children consistent opportunities for development.

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DEVELOPMENTAL OBJECTIVES FOR TEACHERS*

I. <u>Observation of how the child goes about learning</u>.

   A. Implementation Strategy

      1. As the teacher observes each child daily, he should ask himself continuously: "Am I focusing my observations on the <u>product</u> the child is making, or on the <u>process</u> of how he goes about doing the task?"

      2. The teacher reflects on how the child's performance on one checklist is related to his performance on the other checklists. What strengths and deficiencies are common to them?

      3. To communicate concerning observations, both the teacher and the support person must have made first ⟶hand observations.

         a. Communication is aided by pointing out <u>specifics</u>. One cannot sharpen observational skills on generalities.

      4. Observation of a problem situation must be done in its true context.

      5. When discussing observations, the teacher must try to be open to those he missed. He sharpens his own observational skills by circling back over situations to see which details were missed. He enhances his own diagnostic skills by seeing possible implications of observations he missed.

         a. Observation is a learned skill. No one is born with it. It takes practice.

II. <u>Analysis of what each task really demands of the child</u>.

   A. Implementation Strategy

      1. What is the "stated" objective?

         a. Does the task truly provide the opportunity to accomplish that objective?

            1.' What specific demands does it make on a child?

a.' The teacher may try the task himself from the child's vantage point. Most materials are made by adults to appeal to other adults, not necessarily to help children.

b.' List of the types of questions (demands) the task really asks.

    1." Which information modes does it involve?

    2." Dysfunction in which mode (s) would automatically cause frustration or failure?

    3." Which level of integration within the learning system is a base requirement for success?

2. What are the instructions for the task?

    a. Are they clear to a child?

        1.' How could a child misinterpret them?

        2.' What changes are needed to clarify them?

        3.' How could the directions be reworded to convey the concept from different thought routes, if the child did not understand?

3. What influence do the following factors have on success in the task:

    a. color

    b. shape

    c. clarity

        1.' visibility of print

            a." contrast against background

            b." size of letters

            c." open space within letters and between letters

            d." glare because of covering or type of paper

        2.' audio clarity

            a." background hum

            b." distortion of high or lows because of tape quality

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c." pleasingness and interest of voice quality and intonation

d." ease of handling in terms of the size of the child's hand and fingers, dexterity, and strength to push, pull, turn, etc.

4. Are objects used in the task safe?

   a. Can parts come off or break that could result in a child harming himself with it?

   b. What is the minimal developmental age at which it could be handled safely?

5. Are objects involved in the task sturdy?

   a. Which parts are likely to break or come apart with sustained child use?

   b. Are there aspects you would need to caution the child about while teaching him how to use it?

6. What is its interest and appeal value to a child?

   a. Does it have the needed stimulus impact to arouse interest - to sustain it?

      1.' For example, a moving or intermittent stimulus has more sustaining power than does a stationary or constant one.

      2.' See Kagan, Jerome. <u>Change and Continuity in Infancy</u>, New York: John Wiley & Sons, 1971 for reference to stimuli that attract a child's attention at which age.

7. How much time does the task require?

   a. Can it readily be completed at one time?

   b. Would the child want to return to complete it?

   c. Would the child want to do it more than once, a few times, often, before losing interest?

8. Which skill (s) would the task help build?

   a. List in order those skills it is most likely to help build.

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9. How can the task be altered to accommodate developmental needs?

    a. At the next lower level of skill emergence.

    b. At the next higher level of skill emergence.

    c. Which other component skills become involved at lower and higher levels?

10. How can the task be altered in regard to the child's total ego development?

    a. What are the attitudinal factors important in how the task is presented?

    b. How can it help the child to develop skills to interpersonal interaction?

    c. How can it be used to help the child improve his self-concept?

    d. How can it be presented in a context relevant to the child's needs and goals?

B. Application Strategy

    1. Observe the child doing the task. There is no other way to judge whether it suits him.

    2. When maladaptive behavior is observed, it offers a first clue to task analysis.

    3. What happens to the child's performance when the developmental level of the task is raised or lowered?

    4. Efforts should be made to learn the above 10 steps of task analysis by applying them daily to tasks presented to the children.

    a. Practice in those 10 steps of task analysis is necessary before giving the task to the child.

    b. The teacher must know why he selected that task from similar ones.

III. Analysis of the developmental level, not the grade level, of the various abilities and skills a child needs so he can learn successfully.

A. Implementation Strategy

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1. In identification of a probable cause of a child's difficulty, the stages through which the component skills develop must be considered. For example, if visual tracking is identified as a probable cause of difficulty in word recognition, it must be remembered that visual tracking starts with touching, then pointing, then visual tracking follows.

2. Especially for a child who has failed repeatedly in a given area, it is good motivation to start the skill building with task which gives him a ninety percent probability of success.

   a. Maladaptive behavior again is a clue that you may have programmed at too high a developmental level.

   b. A number of correlative tasks at the same developmental level are necessary to develop the skill building through more than one type of activity. This reduces the chance of boredom.

IV. Prescription of the specific educational program the child needs to further his development.

A. Implementation Strategy

   1. Objective I discloses how the child learns, providing clues about the sub-skill area that causes his disability. Objective II discloses what the task contributes to his success or failure in learning. Objective III discloses the developmental level at which he needs educational programming to help build that skill. Objectives I, II, and III are the component steps to accomplishing Objective IV.

   2. Identification of skill deficiencies should be confirmed by the teacher's efforts and those of support personnel.

   3. Statement of the child's educational objectives must be as clear and brief as possible.

   4. Specific methods and tasks must match specific objectives.

      a. Practice in identifying tasks most likely to help a youngster overcome a specific deficit is difficult and time-consuming at first. However, the practice pays off in that the teacher has a broader and richer diagnostic grasp of problems and what to do about them. It also provides a wide variety of materials and methods tried by the teacher with his students, so that he will know which skill deficiencies they are helpful in correcting.

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b. Practice in selecting the most appropriate task to help overcome a skill deficiency is important. The tendency is to select a task that is generally accepted for a given skill deficiency. The problem with doing that is that it may be inappropriate or not really the quickest, best route to building the desired skill.

5. The teacher must gather feedback data concerning the usefulness of a task for a given objective, how the child achieves the task, and how readily a skill emerges from one developmental stage to another.

V. Organization of the classroom to provide children with optimal opportunity to participate actively in their learning process at their developmental level.

A. Implementation Strategy

1. This objective involves such procedures as holding out clear and consistent expectations to children, helping them to learn the routine, and organizing their daily activities. Such procedures are the means by which Objective IV is implemented.

2. The concept of learning centers is one means of implementing the educational program. It is not an educational goal in itself.

   a. The advantages of learning centers are that they, (1) foster active participation in the learning process and (2) facilitate interaction among children --- both of which promote learning. They also have the flexibility to allow for peer teaching and whatever strategies seem advantageous.

   b. Employing learning centers does not mean that children never get together as an entire class; they do, under appropriate circumstances that are beneficial to their learning.

   c. Learning centers can be disadvantageous if Objectives I through IV are not employed continuously when programming for the activities to be accomplished in each center. Then learning centers become rote, boring, frustrating, or chaotic.

3. Children have the greatest opportunity to be active participants in learning when they interact. To achieve that, the teacher must devise activities which provide the opportunity for interaction. This is in contrast to programming each child at a learning center with the same activity in parallel fashion.

a. When children interact as a means of learning, it does not promote "cheating". The more secure a child feels in his own skill proficiencies, the less liklihood there is of his cheating later in life.

VI. Helping children become increasingly skilled in directing their own behavior appropriately.

A. Implementation Strategy

1. Objective VI provides the emotional climate in which Objective IV can be most productive. All persons learn best when learning is fun and when the learner is respected as a full-fledged human being, not as a pawn or victim.

2. For their ego development, children need daily opportunities (1.) to see how their behavior affects others, (2) how the behavior of others affects them, and then (3) what options exist in any situation for how they choose to behave.

3. The more impulse - ridden and the more a child is likely to react maladaptively in a situation, the more you need to structure that situation - to prevent the child's failure. As children become better able to make adaptive decisions about how to behave, the less you need to structure a situation.

4. Children more readily learn to monitor their own behavior and to choose adaptive behavioral responses when the atmosphere is open, non-threatening, and non-condemning. A key factor in achieving that atmosphere is not to make all decisions for children, rigidly giving them no voice in their school life. Instead, children should be encouraged to voice their needs, and the teacher should listen to what they say. He also should respect children's feelings and their rights to development, sharing all educational prescriptions and strategies with them, never doing things to them.

a. Rules for the classroom or for the "community" are more effective when they come from the children. Then they have a stake in them.

b. If rules are violated, this is not an indication to scrap them. Instead, it is an opportunity to help the youngsters evaluate the purpose behind the rules and to see their own behavior in terms of that purpose.

c. If rules break down, the teacher needs to examine his own consistency in attitude and approach toward the children. Inconsistency of attitude and approach

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violates the contract between teacher and children, thereby encouraging them to violate their end of the contract: that is, violate the rules.

VII. Being receptive to support help.

A. Implementation Strategy

1. Just as children need to feel free to develop at their own pace, so do teachers. Similarly, just as children need interaction with another person to help them guide their development, so do teachers.

2. As teachers grow in self-concept, they become more open and flexible -- less fearful of looking at themselves honestly. Then they can risk admitting where they are in their own development and feel comfortable doing so. As they thereby become more secure in their own effectiveness, they can provide a more open, growth-promoting atmosphere for children.

3. The purpose of support help is both to assist in child development and in teacher development. If those objectives are not being achieved, both teacher and support person need to explore why. On the surface, it seems easier to avoid the issue altogether or avoid the other person, grudgingly certain that he or she is not being helpful or not following through only for reasons of personal dislike or disregard. While such feelings are a possibility, it is likely that the real reason lies elsewhere. It can be found only by exploring the issue.

VIII. Teamwork with Peers.

A. Implementation Strategy

1. Just as children need the opportunity for interaction and discussion with their peers in order to organize and refine their own concepts, so do teachers. By regularly sharing teaching strategies and classroom problems, teachers have the opportunity to foster their own growth as well as their peers' growth.

   a. This is a way to provide better educational opportunities to many more children.

   b. It also enables teachers to share the responsibility for helping children overcome their disabilities. Then strategies such as peer teaching can be employed successfully. When teachers share the responsibility for problems, the child obviously has many more opportunities to overcome the problem than he has solely within his own classroom.

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c. Sharing teacher strategies helps the whole school to have a warm, helping atmosphere.

2. When we truly believe in the concept that adults are equally entitled to the opportunity for development as are children, then teachers feel comfortable video taping themselves implementing educational prescriptions and viewing with our colleagues how they go about doing it. Feedback from colleagues can help the teacher being video taped, and that teacher can share his own strategies through video taping.

IX. Teamwork with Parents.

A. Implementation Strategy.

1. Traditionally there has been a lack of cooperation between home and school. To a large degree, this can be overcome if the teacher does not contact parents only to register complaints about children, and by sharing with parents what he is trying to help their children accomplish and why. Consequently, it is important to contact parents regularly about positive aspects of their children. Parents naturally welcome such communication and, therefore, are less defensive (or offensive) with the teacher.

2. Parent-teacher-child conferences give the teacher the opportunity to demonstrate his respect for the child's individuality and his open attitude toward the child. They also provide an opportunity for positively toned communication with parents. As home-school cooperation is enhanced, children's opportunity for development is increased more than twofold.

3. Because children are home more hours per year than they are in school, a child's skills can be built better and in a shorter period of time when that child's educational prescription is shared with the parents and the parents are helped to implement it at home through correlative activities. When the child learns faster and easier, it makes it well worth your time to spell out the activities he needs at home.

a. Although traditionally parents are not used to learning being fun, parents can be helped to accept this just as teachers have. In the long run, life is easier both for them and for the children when the teacher gives them strategies and activities that provide enjoyable opportunities for skill building at home.

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b. The more secure the teacher feels in his own
   diagnostic - prescriptive teaching skills, the more
   he will want to share what he knows of the child with
   his parents. Then the teacher may feel free to let
   parents know what he has tried and how it has worked in
   helping their child. Then the teacher can also let them
   know that he welcomes feedback from them as to the child's
   progress at home. When teachers no longer need to be in
   the oracle role, they do not feel put down if parents say
   that a suggested strategy did not work at home. Instead,
   this becomes an opportunity to find out why it did not
   work. That may provide further opportunity to help the
   parents' implement better, because it might reveal
   certain things they are doing which interfere rather
   than help the child's progress. It also might provide
   information the teacher otherwise would not have, thus
   helping to reformulate his understanding of the child
   so that he can devise an educational prescription that
   helps the child more easily and readily.

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FUNCTIONAL LEARNING SYSTEM

WHAT IS INVOLVED IN THE TRAINING REQUIRED TO UNDERSTAND THE LEARNING PROCESS?

First of all the educator has to start with himself -- to understand his own learning system. This doesn't mean only academic learning, which is what conventional education is limited to. He also must understand and be open with himself in terms of feelings. Otherwise, teachers, or administrators, or support persons coming into the classroom have no way of knowing what they bring to the learning climate.

Until they really look at themselves closely, most people feel that they _do_ know themselves. Much in conventional training and background has militated against looking at oneself honestly. Instead, one's background has often dictated: "Just go ahead and do things the way they're supposed to be done -- that's _all_ that's important." Consequently, if one looks at or questions himself, he may feel guilty.

A teacher's job is much easier when he understands what role he plays in students' behavior. Otherwise, he blindly brings to the class-room all his biases, experiences, self-concepts, and habitual ways of responding to various types of behavior. In other words, it is easy to apply the crucial factors which could, if properly used, build the kind of classroom atmosphere the educator wants.

Only when the educator establishes an understanding relationship with himself can he create a climate of openness within the classroom -- one in which students can share with the teacher what feelings and experiences _they_ bring to the learning situation. Then the teacher can help students become open with themselves and with each other.

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The second area involved in understanding the learning process is awareness of the child's internal environment. At its core is his biochemistry, which is like his inner machinery of learning. While educators cannot directly influence that, they do need to be aware that there are biochemical changes that do affect learning and to know when and to whom to refer a child.. Similarly, teachers need to be aware of the youngsters' health. By greeting them daily as they enter the classroom, the teacher can obtain hints about what each child as a total being is bringing to the learning situation. For example, if a child has a head cold, or is upset, or angry, the teacher should know it. When a child is ill, he usually functions at a lower developmental level. If he has been chronically ill, such as with a systemic infection, his development can be set back one month for each week of illness. That obviously changes what should be expected when he returns to school.

The third area of training needed to understand the learning process is the influence of the external environment. For example, when colors at the opposite ends of the spectrum are side by side, red looks as if it is larger and closer than blue. When a red square is centered on blue paper, the red square looks like it has torn a hole in the blue paper and is moving toward you. When applied to reading materials, this does not make reading easier, but more difficult. While many youngsters can cope with this, some will handle contrasting colors only with increased stress, which shows up in their behavior in the classroom or at home. Others won't be able to handle it at all. They'll have to blow up or find some other way out of the situation.

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INFORMATION
PROCESSING MODES

Feeling
Hearing
Moving
Saying
Seeing
Smelling
Tasting
Touching

ACTIVATION
through
PROPRIOCEPTION

Highest Efficiency in
Symbolic Coding of Information

SYNTHESIZED
CODIFYING
PERCEPTUAL
PRECEPTUAL
Genetic Coding
toward
Performance

Scanning
Mechanism

Action
Audition
Emotion Gustation
Language
Olfaction
Taction
Vision

FEEDBACK MECHANISMS

FUNCTIONAL LEARNING SYSTEM*
Figure 3

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To assist us in applying the teaching tools, we need to explore a model of the learning system, which serves as a road map to development. Nature's purpose for learning is to get information from the outside world so the child can learn how to cope with the demands the environment makes on him. This means, first of all, that the educator is concerned with the information processing modes. He is concerned with whether or not each of these gets accurate information, or distorted information. Either partial or distorted information will impede the child's learning process.

More than the five senses are involved. For example, feelings, or emotions, are receptors that supply an individual with important information about the environment. Is it friendly or hostile? Is this the right time to ask for what he wants? Are they tuned in to what he is saying? Such information is important every day of an individual's life.

Proprioception is the funnel that enables information from the input modes to become integrated into the learning system. Proprioception provides a baseline for a child to find out who he is and what he can do. It tells if any part of the body is moving, and if so, where and how fast. That feedback forms a matrix for his understanding of how to respond to the information about the outside world.

The information that comes into the system from each mode must be integrated -- continuously organized and refined into smaller, more usable units for coping with an environmental demand. If the information from each one of the modes remained as separate packages, the individual could not become organized enough to respond with any degree of reliability or efficiency. Consequently, a person goes

through the following stages in learning anything new, regardless of our age.

The first stage is the preceptual stage. The word preceptual comes from precept or mandate -- an order from nature that says, "Thou shalt practice each one of your information processing modes so that it will receive information as efficiently as possible for you." This happens throughout childhood. Children even practice feeling by imitating the mannerisms of others, dressing up in other's clothes, dressing up in the cognitive style of others -- all is part of practicing feeling.

As each mode becomes more practiced, the individual starts to put together information from different modes. The resulting mental image is a percept. At that level of integration, information that comes in from one mode triggers stored information from other modes. An example would be a youngster who sees a picture of a hamburger, and through that visual stimulus can actually taste it, smell it, hear it sizzle, and feel the bun. He truly has a clear, integrated percept of that hamburger. He knows exactly what it is and what it means to him. Many youngsters don't come into school with clear, meaningful percepts. Consequently, they need more practice at the preceptual level, so that later they can develop meaningful percepts.

Nature's command is to organize and codify information into more and more refined groupings. As the mind continually codes information symbolically, it groups that information in a variety of ways. Information can be classified, put into a serial order, established in cause and effect relationships, and so on. Through these different ways of codifying information, finally there's a synthesis, the

light bulb, the _aha_ reaction. This, however, is only temporary. As
soon as the individual is exposed to additional information which was
not available prior to the synthesis, he has to tear down his
conceptual boundaries so that the new percepts can be included. This is
why the integrative aspect of the learning system has arrows going both
ways. Any person is continuously adding new data, reshuffling the
boundaries of his concepts, and reorganizing information into different
dimensions and classifications.

There are many feedback mechanisms. This is nature's way of
saying, "certain parts of you should work together, so learn how to
make them team." For example, posture influences vision, and visual
malfunctions cause warps in posture. In the classroom, a teacher can
be of direct assistance to the feedback mechanisms of students by
providing activities that enable related functions to team harmoniously,
instead of working against each other. An example of this would be the
furniture on which the youngsters sit. If a child is in a chair that is
too high for him, he quickly will get painful feedback from the under-
side of his knee, because his circulation has been cut off. Then he will
twist and turn in his seat, finding it difficult to attend to his visual
task. Instead, he must have a properly sized chair so that he does not
become uncomfortable, and his posture and vision can function more
harmoniously. Then visual-postural signals can become more and more
refined for the purpose of enhancing performance.

There also is a scanning mechanism inside the brain, which works
on an electromolecular basis, to help remember relevant information.
It's like a computer that shuffles through its data bank and within 1/10
to 1/1000 of a second enables a person to remember previous experiences

that have been coded as useful in coping with the current environmental demand.

The integration of information coming through the modes, the feedback network, and the scanning mechanism together mold performance into a total pattern. Each performance is as organized as it can possibly be at that point in that person's development. Each individual takes his entire self along everytime he responds. One of the myths of education has been that there are visual tasks or auditory tasks, as if we could leave the rest of the organism someplace else. This is not possible. There are tasks that make primarily visual demands, or primarily auditory demands, but the whole organism is always involved. If there is excessive stress or a malfunction in any aspect of the learning system, it will show up in performance. Fortunately this happens with 100% consistency. Why is this fortunate? Because teachers have daily opportunities to read the child's performance. By observing his performance, the educator can tell where he is developmentally and how organized his learning system is. This enables teachers and support persons to do the diagnostic-prescriptive work they want to do.

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The purpose of this flow chart is to present a systematic process for implementing a diagnostic and prescriptive learning program, for all students in a room, building or school district.

Project FAST is an educational system that will provide the basic tools and conceptual model for a more humanized open atmosphere for learning. This system is capable of using methods, strategies and concepts generated anywhere, at anytime to help the vast majority of students to succeed in the mainstream of education.

From its inception, FAST'S staff, Dr. Sheldon Rappaport, consultant to this project, and the Bay Arenac Intermediate School District, have attempted to synthesize for the classroom teacher the functional skills necessary to provide an individualized educational program to meet individual student needs with a developmental learning approach.

What will it be like when this system is implemented? Each person in the program can look for a growing awareness of himself as a developing person -- one who has the freedom to make mistakes and to learn from them -- one who does not have to practice self-deception for fear of being wrong. There also is the pleasure of orchestrating learning situations which facilitate the growth of each individual student at his own developmental level in a way that is meaningful and appropriate, to him. Thirdly, teachers will automatically analyze teaching materials, to determine whether each has real benefit, and if so, for which student. Teachers will not find themselves bandwagon-hopping whenever a new method, a new material, or a new piece of equipment comes out. They will feel secure enough as educators to stop looking for panaceas. They will realize -- at a synthesis level -- that there is no one answer for all students, and will have the ability

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to pick and choose the course to follow for each individual. They also will have the security of knowing that as teachers they are regarded as full-fledged human beings who are developing within an education system that is responsive to the need for change. And there will be gratification in knowing that their efforts serve Nature by helping students to grow into thinking adults who explore situations and make decisions based on the information they have gathered and evaluated -- students who will be able to cope with whatever the knowledge explosion creates as their future.

FLOW CHART
Figure 4

TEACHER TRAINING → **CLASSROOM APPLICATION**

1. PRESCRIPTION FEEDBACK
2. OBSERVATION OF IMPLEMENTATION
3. ANALYSIS OF PRESCRIPTIVE PROGRAM

→ PRESCRIPTIONS
→ ALL STUDENTS
→ TEACHER OBSERVATIONS
→ SUPPORT

TEACHER TOOL KIT [9 TOOLS]

✓ SUPPORT PEOPLE OBSERVATIONS, SUGGESTIONS, PRESCRIPTIONS

✓ CONSULTANT ASSISTANCE: PROGRAM DEVELOPMENT

✓ PARENT INVOLVEMENT

CURRICULAR ACTIVITIES

1. ALL ACTIVITY GROUPS
2. INDIVIDUAL PROGRAMS
3. PRESCRIPTIVE PROGRAMS
4. ALL CLASSROOM ACTIVITIES

A - TEACHER COMMENTS
B - SUPPORT PERSON COMMENTS
C - TEACHER MEASUREMENT
D - OBJECTIVE MEASURES

A-SUMMARIZED PRESCRIPTIONS OF STRENGTHS AND WEAKNESSES IN MAY TO COMPARE TO SEPT. PROFILES

B-SUPPORT PERSONS COMMENTS OF SUCCESSFUL CURRICULAR ACTIVITIES AS THEY EVOLVE DURING THE YEAR

C-TEACHER MEASUREMENTS OF SKILL DEVELOPMENT

D-OBJECTIVE MEASURES: (1) METROPOLITAN ACHIEVEMENT TESTS (2) SPECIALIST REFERRAL REPORTS; (3) VISION, HEARING, ETC.; (4) INDIVIDUAL ASSESSMENTS OTHER THAN GROUP ASSESSMENT.

✓ STRENGTH & WEAKNESS PROFILE (SEPT. & MAY)
✓ STRENGTH & WEAKNESS PROFILE (END OF YEAR)
✓ SUCCESSFUL CURRICULAR ACTIVITIES

END PRODUCT OF SYSTEM:

• DEVELOPMENT OF CURRICULAR ACTIVITIES FILE ON SUCCESS-FUL CURRICULUM

• VERIFICATION OF CURRICULUM BASED ON THREE POINTS (ABOVE) AND A,B,C,D.

March, 1975

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PHASE II
FINAL COMMITMENT PROCESS

The information sheet, FACTS FOR FAST, should be analyzed and forwarded to Project FAST. If any aspect of information is not clear, Project staff will explore these points with whomever filled out the questionnaire.

The information for the questionnaire is used by Project FAST staff as a guideline to (a) what objectives are realistic, (b) possible points of conflict between FAST procedures and local possibilities, (c) pitfalls that could stall implementation, and (d) additional information which may be needed before legitimate decisions can be made.

The Individual School and Districtwide Information must be made available to Project FAST to assist in preparation for the self-screening process.

INDIVIDUAL SCHOOL

This form should be filled out by the principal of any school interested in adopting Project FAST.

Name of Building _____

Address _____

Telephone _____

Principal _____

Number of Teachers _____

Enrollment _____

For each grade level in your building, list the number of classes, the number of students, the number of teachers, and the number of aides:

Grade Level						
# of classes						
# of students						
# of teachers						
# of aides						

How many teachers are certified to teach the:

	Elementary	Secondary
Learning Disabled	_____	_____
Educable Retarded (Type A)	_____	_____
Emotionally Disturbed	_____	_____
Physically Handicapped	_____	_____

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Number of special education classes and types.

	Number of Classes	Number of Students	Number of Teachers	Number of Aides
Learning Disability				
Educable Retarded (Type A)				
Emotionally Disturbed				
Physically Handicapped				
Other				

Name the schools that are within walking distance or a 10-minute ride from your school.

Walk	Ride
_____	_____
_____	_____
_____	_____

How many students in your school are bussed? _____

What is the maximum time an individual student spends each day riding the bus? _____

How many of the following does your building have available?

_____ overhead projectors

_____ video tape equipment

_____ tape recorders

_____ listening stations

_____ Language Masters

How much in-service time is available in your school? _____

How much is budgeted for in-service? _____

This questionnaire was filled out by:

_____
Name   Title

Districtwide Information

FACTS. FOR FAST

Name of School District _____

Address _____

Phone _____

List name of superintendent and other administrative officers, along with their titles:

_____

_____

_____

_____

_____

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List all the schools in your district by name, the grades each school covers, the number of teachers in each school, the number of students in each school and the number of special education classrooms in each school.

Name of School	Grades	# of Teachers	# of Students	# of Special Ed. Classrooms

How many students are bussed? _____

Are any schools on a split shift? _____
    If so, which schools and what are their hours?

    _____

    _____

    _____

Does your school district have a pre-school program? _____
    If so, where is it housed? _____

How many members are on your board? _____

When are regular meetings held? _____

Indicate the # of your board members who would be available for
workshops:

                    evenings _____
                    half day _____
                    full day _____

How many in-service days are possible by contract? _____

Does your district run any kind of diagnostic or assessment clinic?

                    Type? _____
                    Where? _____
                    When? _____

List # of specialists employed by your district.

    _____ school psychologists

    _____ social workers

    _____ speech pathologists

    _____ reading specialists

    _____ learning disabilities specialists

    _____ resource room teachers

    _____ other (specify) _____

    _____   _____

    _____   _____

                    This questionnaire was filled out by:

                    _____   _____
                    Name   Title

FACILITATING ADOPTER/ADAPTER COMMITMENT
TO PROJECT FAST

With the information provided in the FACTS FOR FAST, Project staff will help the potential adopter/adapter finalize their commitment.

Prior to training, Project FAST requires a self-screening process with a representative decision-making group process to establish teacher and administrative readiness to adopt/adapt.

Each potential adopter/adapter will leave this session with: 1) Increased personal participation and commitment to the goals and objectives so there will be 2) Increased follow-through on implementation of the decisions. The end product will result in an adopt/no adopt recommendation. Those receiving a no adopt recommendation will leave with a set of goals and objectives to search out alternative solutions to achieve their desired ends.

The decision-making group should be composed of representatives of each facet of the groups involved in that school system. In general, those groups would be:

a) Board members, representing the community

b) Central administration

c) Principals interested in FAST

d) Teachers interested in FAST and in representing the local education association

e) Specialists from the local and/or intermediate district.

This self-screening process will involve approximately five and one half hours. The following is a breakdown of time for the four sessions encompassed in the process:

1) Brainstorming

   One hour, including a 10-minute break

2) Pyramiding

   One hour, including a 15-minute break

3) Consensus

   One and one half hours

4) Decision Making

   One and one half hours, including a
   10-minute break