Learned helplessness is an insidious condition involving undeveloped executive functioning, lack of persistence, and an undeveloped sense of connecting new words or concepts into a web of meanings. Remedial teaching in most small-group, diagnostic/prescriptive settings encourages continued learned helplessness because students are dependent on the teacher for guidance, and the accent is on content rather than learning strategies. The active learning environment used at Ben Bronz Academy, a secondary school for learning-disabled students in West Hartford, Connecticut, is a multi-faceted system built on a framework of metacognitive theory. It is designed to break the learned helplessness habit by constantly making the student aware of his passive style and helping him develop concrete tasks to substitute in its place. At Ben Bronz Academy, these deficit functions are mediated in two ways: the Instrumental Enrichment Program and the Active Learning Environment. In the Instrumental Enrichment Program, students learn problem-solving strategies through self-monitoring and self-mediation. The Active Learning Environment emphasizes metacognition, a point system to provide feedback on behavior, independence activities, hierarchies of strategies for important tasks, and a self-monitoring disciplinary system. A seven-item bibliography is included. (JDD)
Most learning Disabled students are passive learners, and remain "helpless" even when they experience success through academic intervention. Courses in Organization and Study Skills give the students needed new techniques, but the students are very slow to apply these techniques in the content areas in which they need them most. Their "learned helplessness" persists. They do not actively seek help, nor do they apply organization and study techniques on their own.

Learned helplessness was originally coined as a term by Seligman and Maier (1967). It has since been defined as a lack of persistence in tasks that could realistically be mastered, usually because of a lack of motivation which might be caused by repeatedly experienced failure (Luchow, Crowl and Kahn, 1985). Most research in this area has centered around motivational and locus of control theory; whether the experiencer attributes success or failure to internal or external factors. Kirk and Chalfant (1984) found that Learning Disabled students attribute their success to external factors, and their failures to their own personal deficiencies.

In our research on learned helplessness we have chosen to broaden the definition to include a causative hierarchy. This paper describes this hierarchy, then describes a classroom based remedial approach that has been developed over four years, yielding promising early results.

The learned helpless syndrome - a look at causes:

It might be argued that learned helplessness is a product of experience. Students experience early defeat in academic settings, then get step-by-step remedial help. They learn to expect that help and guidance is the only key to success - and therefore they decide that waiting for special help is more efficient than tackling anything themselves. We postulate that experience is a large factor, especially for the dyslexic students who have been so frustrated in their attempts to read. However, for many students there are other factors operating which predispose them to this syndrome. Two dominant factors among our population are deficient "matrixing" (connecting new experiences to old experiences in several ways), and deficient executive functioning. As shown in Figure 1, these cognitive processes are a foundation upon which experiential learning is built. Their deficiency leads to a lack of persistence in a task which in turn leads to a breakdown in organizational and prioritizing competencies.

Matrixing is the act of connecting a new word or concept into a web of meanings and nuances. Most learners connect the word "hot" with danger, pain, burners, radiators, fires, etc. as well as hot foods, the sun, and summer. Some learners grasp this concept episodically, not connecting it in any area except that in which it was defined for them. In healthy matrixing, the learner has a sense of intentionality - (the purpose of learning the concept or word), and transcendence - (the importance of the concept or word in a context larger than the immediate one.)
The undeveloped sense of matrixing is probably the greatest causal factor in learned helplessness. It shows in weak receptive and expressive language scores in the diagnostic instruments administered by Speech and Language pathologists, and in poor vocabulary and comprehension scores.

Matrixing is not stressed in most classrooms. Some students may tie each new word or item into a rich array of meanings and experiences. Many students with an adequate language base can memorize the new words and just a few connections, and manage to remember the words enough to recall them for tests, or when writing a paper. The learned helpless student scrambles to rote memorize the definition so as to spit it out on the next test, but without the investment in several connectors, he forgets the word in a matter of days.

**Executive function** is defined as the ability of a person to figure out how to tackle a novel task. Many students welcome the challenge, and bring many sorting and strategy talents to bear without being aware that they are doing so. Learned helpless students tend to sit back and copy others, or wait until the teacher guides them through the task step by step. (Butterfield and Belmont, 1977.)

With a few notable exceptions, the executive function is not directly taught in schools. Students go through countless problem-solving exercises in mathematics, reading comprehension, and science, but the value of these exercises is not accented in a way that forces students to be aware of their applicability to other problem solutions, or the moves necessary to set them in motion. Some learned helpless students pick up the trappings of these strategies, and when given a new task they go through the motions without a plan - appearing impulsive because they plunge into the middle of the task without completing earlier steps that seem obvious to the observer. Some students develop a rudimentary plan, and apply it to every new task without any awareness that a modification, or a completely new approach is needed. This lack becomes acutely apparent as the student moves into Middle or Junior High school, - at which time teachers begin to expect executive functioning on the part of students, even though they have not articulated this expectation, nor are they generally aware that this is what they expect.

Organization and prioritizing fare better in school curriculum. These skills are taught in several courses in the middle grades. The learned helpless student sometimes acquires a rudimentary ability to list tasks and complete them one at a time, but gathers few of the skills which enhance efficiency. The skills involved in effective studying are not learned, resulting in the student leaving studying to the last minute, and continuing to use the least effective rote memorizing techniques.

The "Active Learning" Environment, a classroom based approach: Learned helplessness has many characteristics reminiscent of psychological depression, including pervasiveness, a lack of clarity of the condition on the part of the experiencer, and a sense that that cure lies in the hands of others. At Ben Bronz Academy, our "cure" is similar to the time-honored antidote for depression - help the learner to be active in spite of himself, and build awareness and insight while that learner is basking in the glow of initial success. However, like the practitioner
who successfully combats depression, our teachers must be equipped with a convincing theory, effective control of the patient's environment, effective treatment ingredients, and a way of measuring the patient's progress. The "Active Learning" environment developed at Ben Bronz Academy has these ingredients.

The Setting: Ben Bronz Academy is a private Junior and Senior High School for learning disabled students. It is situated in rented classroom space in a school building on the campus of the American School for the Deaf, in West Hartford, Connecticut. Students are referred by their parents or school boards, and stay an average of two to three years. Students are average or above average intelligence, and generally enter the Academy with severe academic deficits. The Academy is small and family-like, with a total capacity of thirty students. A full-time and part-time faculty of eleven provides an ideal flexibility in arranging classes. Extensive diagnostic testing is carried out, and students are placed in homogeneous remedial groupings where appropriate. It is not uncommon for some dyslexic students to have up to five varied reading classes per day. At the same time, a full high school curriculum is available for those students who require less remedial involvement.

Ironically, self contained settings, diagnostic/prescriptive teaching, and homogeneous classes are the ingredients which breed or perpetuate learned helplessness. In such settings, the teacher strives to match the task to the student's skill level and learning style, resulting in the student's success in the task, and confirming the student's belief that success is due to an external factor - the teacher's hard work. The student learns a discrete new skill, but need not stretch to apply it elsewhere, nor does he see that he can. The teacher can help him to apply the skill in other courses, but he will only do this when prompted, not on his own, or outside of the classroom. It was because of such an experience that our "Active Learning" environment has been created.

The Theory: In Figure 1, we have depicted learned helplessness as a crumbling pyramid, built on poor foundations. If one takes that illustration in a literal sense, it is possible to postulate that the foundations are so weak that the damage is irrepairable, or irreversible, either because matrixing and executive functions are not teachable as cognitive skills, or because their introduction comes at a wrong time in the students developmental process, so that the learning of the functions is inefficient, and there is too much background content to rebuild.

Our postulation is more dynamic. We espouse the theory of Cognitive Structural Change. Grounded in Feuerstein's theory of Cognitive Modifiability (1979,) it holds that intelligence is not fixed. The ultimate optimist, Feuerstein believes that intelligent functioning of humans can be improved through the systematic learning of strategies that improve cognitive functioning. He calls this approach "active modification" (as opposed to "passive-acceptant.") This approach does not accept low level performance as fixed.

Changes in intelligence can be brought about by the Mediated Learning Experience (MLE) in which the adult interprets (mediates) the environment to the learner. Telling the child "No" when he wants to touch a hot stove is not mediation. Teaching the child the concept that "hot burns" through carefully examining the hot water tap, the radiator, and the iron, is mediation. The child then learns a concept that can be applied to other situations. For example, the child who has benefited from this mediation can enter an unfamiliar home, point to many objects, and ask if they are
The Pyramid of Learned Helplessness

Figure 1
Feuerstein has identified deficient cognitive functions in the three major phases of brain behaviors. The first of these is the Input or receptive phase which deals with the gathering of information. Second is the Elaboration or thinking phase in which we process information. Last is the Output or expressive Phase which identifies the cognitive functions necessary for completing a task (speaking, drawing, writing.)

The goal of mediated learning is the remediation of deficit cognitive functions to bring about cognitive structural change. At BBA we call our teachers "mediators" because we all set as our goal the awareness of each student's cognitive deficits, and the teaching of content in such a way that those deficits are addressed. One way they do this is to help students extract principles from what they learn and apply them in a variety of novel situations.

What is Cognitive Structural Change and how do we know when we have it? To understand what it means, we will first analyze the parts and then synthesize them.

Cognition refers to how the brain handles the information it receives. How do we make sense of all the signals coming into the brain and add them to our knowledge bank? The brain integrates, sorts and stores incoming information making it part of our knowledge. We can then retrieve this knowledge when we need it and act on it in an appropriate manner. Even as you read about this notion, you see the words, and they come together in a sensible way that creates an idea or thought which then gets sorted and stored with other data you have about how the brain works. Later, when you are telling your friend about this article, you'll repeat what you learned, and add to it other information about brain function that was already in your memory. The reporting depends on retrieval of knowledge and your ability to communicate or act on it.

Structure refers to the organization of the brain. Psychologists and Neurologists have built models that attempt to explain how the brain works. They want to know what area of the brain controls specific functions and how each of these areas interact? For example, how does the area responsible for receptive language interact with the memory area?

Change refers to making something different than it was before. When we redecorate our rooms, we change the way they look.

Cognitive Structural Change, then, refers to alterations in the way the brain receives, processes and uses stimuli, which cause a permanent change in our behavior, -- in the way we view something and act. Examples of events that have caused permanent changes in how we view our world are the discovery of how electricity can be harnessed and used; the dropping of the first atomic bombs which made war become unthinkable; and the civil rights movements which changed forever how we view blacks, women, and handicapped people. The notion that we each have rights that no-one can take away from us means that we no longer have to say, "Please let me," putting us in a beggar's position. We now demand what is rightfully ours.
Permanent Cognitive Structural Charge also implies **resistance**. If the student learns a strategy for problem solving, can that method be applied to similar problems in other situations? For example, if you learn to drive a Plymouth can you then drive a Mercedes? When getting into an unfamiliar car a student should be able to ask where the controls for lights, windshield wiper, are, because the student "expects" them to be there.

Any cognitive structural change must also have **flexibility**: Can the learner judge or determine when these strategies apply or do not apply? When taking power tests or fluencies to see how much he can do in one minute, a student would know that it would be inappropriate to ask for the tests in an untimed format.

And lastly, Cognitive Structural Change implies **generalizability**; the ability of the learner to independently apply what was learned to different situations. Can he use the same problem solving strategies in other areas of his life, when needed. In our Adult Evening School we stress planning as a strategy. The students practice making seven step plans for a variety of activities such as studying, having a party, getting or keeping a job, etc. One young woman graduate came to visit and thank one of the authors. She had been in an automobile accident and started to panic. She then remembered to calm down and make a plan about what she had to do. As a result, she was able to handle the entire situation intelligently. This was all the more remarkable because one year previously, she had been afraid to leave her home unescorted. (That was the subject of one of her first plans.)

At first glance, resistance and generalizability may sound like the same phenomenon, but they are distinct. To clarify, the difference between resistance and generalizability, resistance refers to the ability to use a learned skill in a similar situation. If you learn how to use one type of word processor, will you then be able to use a second word processor. Generalizability refers to the ability to use a particular strategy in an altogether novel situation. If you can write a plan for how to complete a particular sheet of the instructional materials, can you then make a plan for studying or handling an accident?

In summary, Cognitive Structural Change is the altering of brain functions that effects how a learner gathers, thinks about, and acts on information, and is permanent, resistant, flexible, and generalizable. At Ben Bronz Academy, these deficit functions are mediated in two ways; first is Feuerstein’s three year Instrumental Enrichment Program, and the second is the Active Learning Environment which is provided in all classes.

**Theory into Practice:**

All students attend Instrumental Enrichment class daily for three years. The program is comprised of over 500 sheets which are paper and pencil, content free tasks. The completion of each sheet requires development of strategies, and themes or principles which apply to the immediate task, but can be applied to similar tasks in other subjects or activities. Students are taught to be vigilant in discovering what they did that helped or hindered completion of the task. These discoveries are shared and often argued within the group as new strategies and principles are developed, refined, or discarded as inefficient. The metacognitive aspects of problem solving become the keystone of a student's growth through self monitoring and self-mediation.
The theme of Level I of FIE is that "man has control of his universe." There is a tendency on the part of the learning disabled to view themselves as helpless victims. They believe others are in charge of them and that they themselves have no power. In this unit they learn that they are not flotsam that gets pushed about willy-nilly, but can control what they do and what happens to them by careful planning.

Level II facilitates examination of relationships between man and his environment. Once relationships are discovered, predictions are possible. As a result of our observations we can predict that day follows night and night follows day and arrange our lives accordingly. The learning disabled student learns that if he studies in a certain way he retains information and does well on his exams.

Level III teaches problem solving through formal logic. In the unit on Syllogisms we actively examine the use of stereotypes in commercials; for example the visual statement that all Marlboro smokers are macho, and it's silly implied conclusion. This gives often naive and gullible youngsters a tool to analyze what they read or are told.

To ensure the generalization of this active examination of the thinking process, all of the mediators attend and teach some aspect of the Instrumental Enrichment classes. They take the principles, vocabulary, and concepts, and apply them where possible in other classes. A special "Challenge Mathematics" class has been developed, modeled on Instrumental Enrichment, in which students develop planning strategies for tackling word problems, create and examine principles, examine which cognitive functions they are using in math problems. They also use error analysis to single out the cognitive functions which must be exercised more carefully.

Creating Active Learning: Instrumental Enrichment is ideal for mediating meaning and giving the student the steps required to carry out the executive function. It is augmented by a series of Study Skills classes in which the students learn active ways to preview materials, take notes, use visuals, summarize, make time-lines and charts, memorize details, use a Plan Book to write and prioritize homework assignments, review vocabulary, and study. Every academic class stresses vocabulary, and all mediators demand that students "matrix" the word by not only finding its appropriate definition, but by also determining its part of speech, and putting it into context in a grammatically correct sentence.

These classes give the students the tools, the insights, and the content; but they do not make him "active." We define active learning as the process of creating "dissonance" within oneself while absorbing new information, then organizing that information in a way that it will make sense and stay in memory. It involves taking responsibility for one's own learning, active examination of the learning process, and continuously evaluating one's own efficiency. The classes in Instrumental Enrichment and Study Skills are not sufficient. With all of the academic accent on thinking and studying, and vocabulary building, very little changes. Students learn to mouth the correct words, but when given a novel task, or reminded to study or plan ahead, they look at the mediator as if in a trance - and the old habits change little. To change habits, the students must first be more aware of their sliding back into them, and of the alternates they can use to combat them. The habits are so pervasive that an Active Learning Environment must be created to confront them. Besides
the Instrumental Enrichment classes, Study Skills classes, and school-wide vocabulary requirement, this environment includes a feedback system, a series of tangible "Independence" activities, uniform skill hierarchies that help students plan and organize research activities or writing assignments, a discipline handling system which forces student awareness of his own responsibility, a future planning exercise called the Individual Transition Plan, and a series of Research Weeks designed to allow students to exercise newly acquired skills. Figure 2 illustrates the Active Learning Environment.

The Feedback Point System: To increase the students' awareness of their learned helplessness, and their own part in successful learning, we use a "Feedback Point" behavioral system, in which all mediators award positive points for any task that a student does which enhances his/her learning, and negative points for any behavior which blocks learning. The points are awarded as the behaviors occur, with almost no disruption of the class activity. When awarding points, mediators are careful to say that the student "earned" the point through his own behavior, reinforcing the student's awareness of his internalized locus of control. Positive points far outnumber the negative points, and are motivators in themselves. There is no exchange system, nor do the students wish one. Points from all classes are collected at the end of the day, and each student charts his points so that he can see his progress over weeks and months.

Independence Behaviors: Part of the success of any good feedback point system is the clarity with which each expected behavior is defined. Since we are seeking "active" and "independent" behaviors, we have carefully studied the behaviors (executive operations) which lead to academic success at any level. Thirty-one such behaviors have been defined and given clear, short names to aid the student in remembering what they are. As shown in Figure 3, these have been arranged on an Independence Matrix which utilizes the three phase format used by Feuerstein to describe thinking activities.

The independence behaviors are taught, rehearsed, and demanded in every class. Students who independently exhibit an independence behavior are praised, and an "independence check" is marked on the feedback point sheet. Some behaviors are awarded special marks ("G" for Gating; stopping the mediator's lecture when one is flooding -- or a special symbol for Bridging; relating new learning to past experience.) Students also chart their independence points, to see whether these are increasing from month to month.

Skill Hierarchies: Each of these activities are taught and practiced in all classes. Students are encouraged to use them continuously, and praise by mediators anytime they are noticed doing so, or show evidence of having used them in completing homework. The mediators also place a special check mark on the feedback board. On the other hand, if an opportunity presents itself for the student to use one of those activities, and he sits passively, he earns a "couch potato" mark on the feedback board.
The Active Learning Environment

Critical Incident Report

Independence Behaviors

Feedback Points

Individual Transition Plan

Uniform Skill Hierarchies

An Active Learner who is showing dissonance

Matrixed Vocabulary

Study Skills

Instrumental Enrichment

Research Weeks

Theory of Cognitive Modifiability

Figure 2.
Independence: An independent person is one who articulates his own goals, develops a realistic plan, works systematically to reach the goals, but is flexible and undiscouraged by obstacles.

Input

Previewing: Reading texts the night before class.

Warming Up: Lists, puzzles, and pies to stir up memory and thinking. Skimming new material for 10 seconds. Rehearsing the language needed for oral and written tasks.

Audit Trail: Name and date on each page. Pages in order in notebook.

Inquiring: Asking questions related to the topic, instead of waiting.

Sensing Learning: Arranging to get learning by hearing, seeing, doing, (using tapes, diagrams, etc.)

Analyzing: Finding the facts; asking who, when, where, what, why/how.

Gaging: Avoiding flooding by controlling the input.

Paraphrasing: Writing the right amount of detail (10 facts or fewer).

Vocabulary Building: Looking up and writing definitions of new words. Using split page.

Temporal Efficiency: Planning the day, long term assignments. Writing assignments in the Plan Book.

Elaboration

Problem Solving: Defining a problem, setting up a 6 step plan, enlisting support, tackling the problem, being flexible.

Synthesizing: The facts into an organizing principle or Main Idea.

Contextualizing: Placing a word or phrase in a meaningful sentence or category.

Bridging: Relating learning to past experience.

Clustering: Classifying words or concepts according to their attributes.

Imagining: Using visual images to understand and remember information.

Matrixing: Connecting a fact to known information in several ways.

Inferencing: Using known information to guess meanings of new items, predict outcomes, or fill in gaps.

Resourcing: Seeking and using reference materials.

Summating: Making a mental or written summary of the information.

Transferring: Using what is already known to facilitate a learning task.

Self-run Fluencies: Determining own pinpoints, getting own fluency sheets, completing fluencies 3 times per day if necessary.

Self-run Homework Plan: Deciding own homework, setting up and following a plan for study and review.

Feedback Loop: Evaluating own performance, knowing own learning strengths and weaknesses, building improvements, building a support system.

Output

Speaking:

Precise Statements

Elocution: choice of words, parsimony.

Elocution: Modulation, articulation, delivery, presence.

Writing:

Outlining the topic: Defining the main idea, listing the subordinate ideas.

Note-taking: Writing key facts during lectures or reading sessions.

Solidifying: Writing or saying a thought to make it clearer.

Final Product: Edited, neat, word processed, spell checked, using appropriate format, bold print, pictures.

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At the junior high and high school level, several complex learning activities are expected of the student. Examples include previewing a Social Studies text, writing a term paper, organizing lecture and study notes in a certain way, or solving a complex math problem. These activities involve the linking together of several more basic skills that were introduced in the middle school years. As the students enter the upper grades, they encounter the specialized teaching system in which they have different teachers for each subject. Each teacher spends only a brief amount of time telling the students what is expected in his class. The student with adequate basic skills and executive functioning adapts quickly. He is the one who has a sense of which basic skills are needed, and a sense of how to reorganize them to meet the teacher's demands. The student with poor executive functioning may know the basic skills, but is unaware of the need for them, and at a loss as to how they should be organized to meet the teacher's needs. Since each teacher has different requirements, the student becomes overwhelmed.

Some learned helpless students fail to grasp the structure, function, or purpose of the basic skills when they are introduced in the younger grades. (Some LD students are "pulled out" of Social Studies and Science where these skills are often taught - for Resource Room or remedial services, so they actually miss the initial teaching.) By the time the learning helpless student enters the specialty teaching grades, he lacks the basic skills, so he is even more at a loss when the more complex tasks are demanded of him.

To have the learned helpless student learn a hierarchy of skills, it must be clearly defined, introduced and used almost daily, and end with a product that the student is proud of. It must also be used uniformly in all classes, so that the student is not bombarded by conflicting demands at a time that his new skills are not well integrated. We have built such hierarchies for writing a term paper, analysis of texts, solving mathematics problems, writing assignments in a Plan Book, and organizing notes in a notebook. To avoid student confusion, and provide ample practice, we use these uniform hierarchies in all classes. For example, in writing classes, the students learn a seven step strategy to develop a paper. The same seven step strategy is used as the standard format in literature and history classes. A twelve step skill hierarchy for analyzing text is taught uniformly in Study Skills, History, Reading Comprehension, and Literature classes. Having the skill hierarchies written in clear steps helps the learned helpless student to become more aware of how each skill connects, and which step must be taken next. A teacher can expect that when he assigns a writing topic, the learned helpless student will sit frozen in confusion, or sometimes will ask what to do next. With the seven step strategy in front of him, he can be re-directed back to his own resources by the mediator asking him what the next step of the strategy is. Soon the student is following each step without prompting.

The uniform hierarchies also increase opportunities to demand active learning. For example, learned helpless students always manage to get the teacher to do all of the editing on a paper, handing it back decorated liberally with red marks. Part of the reason the learned helpless student hands the paper to the teacher in that condition is that there are so many errors that he is discouraged before he begins. In our writing hierarchy, we have developed a "layered editing" system, which allows the student to concentrate on one aspect of editing at a time. After making two copies
of his paper (which he has composed on the word processor), the student edits one copy, while the mediator edits the other copy. At the first level, both the student and mediator only look for grammatical errors, using a grammar key which lists a dozen items to look for. If the mediator comes up with different numbers of each kind of error, he/she tells the student to look again for the remaining number of that kind of error. As a result, the student learns to sharpen his own editing skills. As students become more practiced, they buddy up and edit each other's works. Having word processors available for easy editing takes most of the pain out of "rewrites."

Using Discipline to Promote Active Learning: All of these innovations take place in the ongoing classes. For some students, all of the careful modeling and practice in the classroom can be eclipsed by critical incidents which occur in the hallways, or as a result of removal from class. In spite of the fact that quite a few of our students had twin labels of learning disabilities and emotional disturbance at the time of their entering the Academy, there are very few discipline problems. This is partly due to the success oriented, intimate atmosphere and partly our small size. However, when incidents do occur, these are also handled in a way that shifts the locus of control back to the learner. The usual consequence is that the student(s) involved must write a Critical Incident Report which describes his inappropriate behavior, and what more appropriate action the student plans to take in the future.

Two other planned events were especially designed to increase Active Learning at the Academy. These are the "Individual Transition Plan Sessions", and "Research Weeks."

The Individual Transition Plan (ITP), came about through a government mandate which requires all students over the age of 15 who are requiring special education services to have a plan on file. At the Academy, this has been turned into an experience for the student, in which he completes a series of activities which include vocational exploration (interviewing people in different walks of life and reporting the results to a student assembly), looking at vocational preferences (through a questionnaire,) evaluating his growth of independence (through completing a checklist), filling out a goal statement with his advisor, and projecting his plan 20 years into the future on a Goal Attainment Scale form.

Research Weeks happen three times each year. They are a time when we break out of the usual classes, research a special topic, then go on a field trip to collect more information, finally ending in a reporting session for which each student has written a paper, and contributed an exam question. This format allows students to exercise the independence skills that they have learned, while expanding their learning environment. Research weeks have included environmental studies, a look at the media, politics, a comparison of the governments of Williamsburg and Washington, a study of learning disabilities, and space. Students and parents find these weeks highlights in the academic year.
Results:

There are no powerful indices available to measure the decrease of learned helplessness or the increase of Active Learning. We are able to report some indicators of related events. Improved executive functioning (as well as improved perception) is indicated in improved scores on the Ravens' Progressive Matrices. (See Figure 6). The daily feedback points tally for individual students indicate that they are exhibiting a greater number of individual independent activities. The students' and advisors' yearly rating of their use of the independence activities have risen by 13% (from a mean of 210/500 to a mean of 268/500, with the greatest gains noted in activities involving the input and output functions.) Academic scores have risen dramatically, both on curriculum tests, and the yearly norm-referenced tests (Educational Records Bureau's Comprehensive Testing Program II.)

Our graduates are another indicator. Since the Academy's founding in 1985, there have been five graduates. Three radically altered their self-expectations and decided to go to college. One is successfully continuing in college, two completed one year, enjoyed success, but chose to leave for other reasons. Two chose specialty schools (a Conservatory of Music, and a Graphic Design Apprenticeship.) Three other students who had been failing before arriving at the Academy, stayed only a year, then transferred to other high schools where they became honor roll students.

Students and parents give face validity to the success of the Active Learning paradigm by recounting many anecdotes that show a change in locus of control, motivation, or cognitive structure. Peter, a severely dyslexic student, recalls his former school experience as one of constant frustration, in which he usually did not understand the concept, to which the teacher's reaction was to say it again - louder. At the Academy, he claims that the mediators have taught him how to learn so he can now attack the text himself. His proud proof of this is that he took on the challenge of mastering the driver's manual himself - asked for assistance when necessary, studied systematically, and passed with 100% and accolades from the driver's tester. He said he took a deep breath to calm himself and used every strategy he ever learned in Instrumental Enrichment. Jim, a disorganized skeptic, caught himself in the middle of an essay exam brainstorming, clustering, and outlining the essay before writing it - and was astounded that he was unconsciously following the steps he swore were so unnecessary. Several students who never completed homework now have more than 95% of their assignments handed in on time. A few students have taken on the habit of studying every evening. Every student recognizes some aspects of his learned helplessness, and acknowledges the need for change.

Summary:

Learned helplessness is an insidious condition involving an undeveloped sense of meaning (matrixing), undeveloped executive functioning, and a lack of persistence. It is habitual, and unrecognized by the student. Good remedial teaching in most small class, diagnostic/prescriptive settings actually encourages continued learned helplessness, because the student is entirely dependent on the teacher to guide him, and the accent is on content, rather than learning strategies.
The Active Learning environment at Ben Bronz Academy is a multi-faceted system built on a framework of metacognitive theory. It is designed to break the learned helplessness habit by constantly making the student aware of his passive style, and helping him develop concrete tasks to substitute in its place. Some facets of our Active Learning environment are studies in metacognition, a feedback point system, a list of independence activities that are constantly used in all classes, hierarchies of strategies for important tasks such as paper writing, and a self-monitoring disciplinary system.

NOTES

(1) An earlier draft of this paper was presented at the Association for Children and Adults with Learning Disabilities (ACLD) National Convention, Miami Beach, FL., in 1989.

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