

Teaching machines that are reasonable and available seem to be a particularly good device for students who thrive on a step-by-step approach. They are particularly good for accomplishing simple goals such as learning letter sounds. Of course, the tape recorder has allowed for more complex learnings such as learning a foreign language, which the language laboratories do so beautifully. A teaching machine can certainly add a delightful new dimension to a school.

Some programmed materials are as exciting as innovative, and as involving as any teaching machine -- particularly in the hands of a teacher who can become involved with the students. An example of such a program is "Making It Strange;" order all four parts of the program (\$.99 each) from Harper and Row, School Department, Keystone Park, Scranton, Pennsylvania, 18512. The ultimate in integrated learning is called, "Making It Whole," (\$15) from Syntectics Education Systems, 121 Brattle Street, Cambridge, Massachusetts.

One of the heights of programming is happening with Westinghouse Learning Corporation's PLAN (Program for Learning in Accordance with Needs). They sell their system with accompanying programmed materials and equipment to schools at the rate of over twenty million dollars per year.

They charge about one hundred dollars per year per pupil (compared with \$400 to \$1,000 per pupil charged by other companies with "computer-assisted instruction").

With a computer center in Iowa, they are able to have a computer assign a unit to a student, who works on it at his own pace. Then the computer grades the tests and assigns the next unit.

The TLU (Teaching-Learning Units) are the heart of the system. Teacher and student look over a TLU that sounds compatible: it may emphasize listening, such as tapes, or filmstrips with accompanying record. It may include games or even research in the library.

This kind of program is directly relevant to the non-coercive approach in that the teacher needs to allow each student to go at his own pace. The system tends to make for students clustering together for discussion, others working alone -- games, films, tapes, tests all going on at once in the room, with the teacher being used as a consultant. The Corporation uses hundreds of programmed materials available in the field including many of the ones I have recommended in this chapter plus a fascinating array of well-selected books and records. For more information, write Westinghouse

Learning Corporation, 2680 Hanover Street, Palo Alto, California, 94304.

For other possible computer-assisted instructional devices, contact your state university system or local private college. Many of these schools have been experimenting for years with teaching machines and would be glad to share their findings.

Some of My Favorite Catalogs Offering Materials that Teach and for Making or Finding your own Materials:

"Big Rock Candy Mountain" (\$4) is a marvelous collection of innovative material, summaries, ideas, book reviews, equipment sources, etc. from 1115 Merrill Street, Menlo Park, California, 94205.

"The Whole Earth Catalog" (\$8 per year) is an amazing collection of equipment and publications for all kinds of involvement with our environment, from Portola Institute 558 Santa Cruz Avenue, Menlo Park, California, 94205.

American Education Publications, Education Center, Columbus, Ohio, 43216, has paperback book services and other material for less than fifty cents per item.

Beautiful recording and earphone equipment is the specialty of Acoustifone Corporation, 8954 Comanche Avenue, Chatsworth, California, 91311. They sell their "Speech Mirror," (about \$7) which enables one to hear his own voice accurately, and a complete "Listening Acoustic-center" (about \$60) for eight persons.

Scott's Education Division, Holyoke, Massachusetts, 01040 publishes a beautiful catalog of filmstrip, filmloop and overhead projector programs.

Some companies offer kits which contain items that make for innovative learning environments. Although very expensive, the brochures showing and listing materials can help you to find or make those same items: A well programmed kit called, "The Humanities," (\$100) with ten filmstrips, records, and a text is available from Holt-Rinehart and Winston in New York. A 1970 edition, it begins with the question, "What is the good life?" and songs from "West Side Story."

Even more elaborate programs are sold by American Science and Engineering Company, 20 Overland Street, Boston, 02215. In a brochure describing their "match units," they list items including:

"Cities" has	aerial photographs reading materials a model city
"Japanese Family" has	clothing tableware calligraphy brushes
"Ancient Greece" has	poetry reproductions of statues coins

Each kit (\$315 to \$576) contains many more items.

Lyons and Carnahan, Meredith Corporation, 407 East 25th Street, Chicago, 60616 has:

1. Excellent spelling games (\$10 to \$40)
2. B.F. Skinner's amazing self-teaching handwriting books (\$.75 each) which when used with a special pen (\$.30) tells you where you're not writing perfectly through not showing a line in those places.
3. Good math books (\$2 to \$3 each) for grades one through eight and a text for communication skills written for high school students.

Milton Bradley Company, Springfield, Massachusetts, 01101 has a large assortment of inexpensive games and teaching materials for reading, spelling, communication, and math skills.

Beckley-Cardi, 1900 N. Narragansett Avenue, Chicago, Illinois, 60639 has a four hundred page catalog which has everything from shelves and space dividers to paper

and pencils and games.

School Service Company, 647 S. La Brea Avenue, Los Angeles, 90036 has some useful inexpensive games and teaching aids.

Cambosco Scientific Company, Botson, Massachusetts, 02135 is an old, reliable company, with a thick catalog of all sorts of sophisticated equipment and supplies.

Science Research Associates, 259 Erie Street, Chicago, Illinois, 60611 has some interesting, sensitive programmed materials, films, etc. SRA is widely known for their guidance materials and their Reading Laboratory (about \$65 to \$100 per grade level) for individualized reading practice for speed and comprehension. I have found that the Reading Labs work best in groups who are committed to them for a few weeks, such as in a "mini-course."

Charles E. Merrill Publishing Company, 1300 Alum Creek Drive, Columbus, Ohio 43216 has a 150 page catalogue which may be of interest. It includes 20 pages of articles by educators and books, tapes, kits, etc. for all ages in math, language. They also sell Bell and Howell's Casette Programmer (impulse recorder) for \$69.95, a cassette tape player/recorder for \$49.95, and

a listening center for eight students for \$99.75.

Bantam Books, Incorporated, School and College Division, 666 Fifth Avenue, New York, 10019 has a wide selection of excellent paperbacks at teen-age reading level for under one dollar. Their catalogs are beautifully illustrated -- ideal for showing to students to allow them to choose which books you order. College catalog is over 70 pages long - junior-senior high school catalog (the most ingeniously illustrated) is over 60 pages.

Don't Forget Your Local Resource People: Actually there are hundreds of catalogs such as these. Be sure to visit the person in charge of purchasing in your nearby public schools who can usually offer all sorts of pointers and catalogs. Don't overlook contacting their local dealer who could be an invaluable trusted resource person. A source of such dealers and list of equipment, supplies, and services across the nation is listed in

two, seven hundred page catalogs -- one for general materials and the other for audio-visual materials: Educators Purchasing Master, Fisher Publishing, 3 W. Princeton Avenue, Englewood, Colorado, 80110.

Establish a Good Relationship with your Local Public Schools

If there are any persons on public school staff with whom you can have a compatible relationship, a liason between yourself and them could be mutually beneficial. Supplies could be ordered together, facilities and staff could be shared. Your drama teacher might direct one of their plays. You might use their guidance counselor for college entrance information.

You may even influence each other! Too idealistic? I think not, given the right people and circumstances. At least visit with the public school people in your area with the idea of sharing something you may have in common, like caring about kids!

The Metropolitan Learning Center has a liason with several public schools, a college, and a technical institute where students may go for courses and to use their facilities.

Get Free Materials

1. Catalogued sources of free materials such as: Catalog of Free Teaching Materials (\$2.75) Box 1075, Ventura, California, 93001 or Elementary Teachers Guide to Free Curriculum Materials (\$9.75) from Educators Progress Service, Incorporated, Randolph, Wisconsin, 53936 or Educator Guide to Free Films (\$10.75) from Educator Progress Service in Randolph again. This company also has a guide to free tapes including a list of schools that wish to exchange tapes with others.

2. Magazine services: simply by subscribing to some magazines, you may use their "free order" reader service. The following four have unusually good pull-out cards where you simply check what you want and can easily have hundreds of catalogs, posters, booklets, and all sorts of goodies:

Media and Methods (\$5) emphasize audio-visual materials from 405 Lexington Avenue, New York, 10017.

Instructor (\$8) offers all sorts of beautiful materials, both free and inexpensive samples from Instructor Park, Dansville, New York, 13347.

School Product News (free to any school or administrator; \$12 per year if you aren't) from Box 5746-U, Cleveland, Ohio, 44101. It's filled with

previews of new and old products that are on the market. Occasionally issues are heavy on large, expensive plant equipment, but there are issues with descriptions and sources of innovative and inexpensive items, too. Highly sophisticated teaching machines, mobile units, useful electronic equipment, and "you name it" is liable to be in an issue. It's a beautiful resource!

Grade Teacher (\$6.50) is similar to The Instructor but less "flashy" (has over one hundred items on its check-list) from 23 Leroy Avenue, Darien, Connecticut, 06820.

3. Free materials are often available from:

Lumberyards

Sympathetic merchants

Parents and Students

Local or nearby industry

City, county and state libraries

Chamber of Commerce

Your local phone companies (they usually have materials to loan such as switchboard and telephones for telephoning practice, and have loaned their CARDIAC which is used to develop computer games.

Embassies and Consulates

Local public or private schools (for example, arrangements to share films)

Colleges

Any human contact.

Glean Ideas from Publications

Magazines can be an excellent source of ideas workable in a free setting, even though many are aimed toward conventional settings. For example, if you order Instructor (mentioned above), even though it is geared primarily for conventional schools, there are ideas and materials usable with slight modifications in non-coercive situations. For examples, in a recent issue of the magazine that I picked up at random, there were articles about:

1. How to Start a Parent Resource File
2. An Exercise on Decision Making
3. Two Games from Mexico
4. Crayon Techniques (such as covering the paper with wax, oil, black ink, or tempera, in connection with crayon use)
5. A Self-correcting Spelling Program.

Simply by going to the library and browsing through magazines such as this, you are bound to find ideas that strike your fancy. The Instructor has ideas presented by staff of all kinds in schools from every state in the nation. A magazine such as this one also has much reading material that students enjoy reading.

Another magazine that does the same sort of thing is Arts and Activities (\$7) from 8150 North Central Park Avenue, Skokie, Illinois. It has simple but effective suggestions accompanied by excellent photographs. For example, one issue gave a step-by-step outline for making paper mache heads using balloons as a base. Beautiful photographs revealed the many varieties of heads that one class produced.

Don't overlook the curriculum libraries of nearby universities, and curriculum publications of school systems: most city systems have many useful publications with helpful ideas. Although some of them date back decades, they can be as innovative as Rousseau.

Initiate Some Group Activities

To help some students lose their feelings of alienation, group activities provide a workable means. Even at Summerhill, students enjoyed competitive group games such as baseball and running contests. Other group activities that have meant much to Metropolitan Learning Center students include:

Folk-dancing -- all ages and both sexes have flocked to daily sessions when the teacher was an inspiring expert.

Innovative Band -- standard and home-made instruments were played together for hours at times! At one point we had guitars, trumpet, kazoos, saw, flute, paper cutter, spoons, broom, shower hose, and a dozen other "instruments."

Recorder Group -- six to ten students played together for years, gave performances at other institutions regularly.

Field-hockey Group -- ten to twelve-year-old students spent hours practicing with the idea of challenging other schools. Then they played competitively and much of the rest of the school became involved.

Other group activities that have helped establish esprit de corps have included drama, modern dance, newspaper, ecology, and mountaineering.

RECORD KEEPING

I talked with John Holt at a time when the Metropolitan Learning Center was in the middle of a struggle for effective evaluative tools. I asked him what he thought about evaluation of a free program and he answered, "It's impossible to find any formal measures. Teacher judgment is probably best." I am sure that John is right, generally speaking. Nevertheless there are ways of finding out how students are doing and

whether or not they are changing or growing.

One of the simplest and most effective techniques is to establish a folder for each student and request staff and students to place weekly information into that folder: information they would like others to know. The others can include teacher, the student, himself, parents, employers, colleges, or another school in case the student transfers. A form sheet, or certain size of paper with a place for at least the date is helpful so that papers can be organized later. All kinds of things can go into this folder, from favorite papers to achievement test results. Incidentally, I have found that standardized tests on a voluntary basis can be a marvelous free school learning experience. Many kids love to take tests in a relaxed way in order to find out about themselves. When students are allowed to study their test results and discover where they are right and wrong, they can learn much about the subject, the test, and even themselves.

One item that may be useful for a student's folder is a form. Free school people usually reject forms. I can understand that. Forms tend to label people and to measure quantity rather than quality. However, the larger schools (with say over seventy-five students) have usually

learned to use at least some forms more or less successfully. Therefore I will present to you some forms that have been used in various innovative schools and classrooms.

Forms at the Metropolitan Learning Center

At first, the Metropolitan Learning Center did not use forms for records or evaluations. The student was to keep a daily log, diary, or journal. However, very few students agreed to do this. Later, students were to hand in a list of what they did on a file card. This worked better, and the base station teacher could use the information. Still later, formal forms were developed and used by most students to plan their program and for teachers to report students who were attending their groups. In addition, pooling information about students at staff meetings has been effective. However, with two hundred ten students to discuss, this proved to be an impossibly time-consuming process, as valuable as it was. In the end, basic responsibility for each student tended to be in the hands of the student's base station teacher or learning coordinator, and forms proved to be a useful starting point for student-teacher conferences.

DAILY ACTIVITY SELF-REPORT

Student's Name: Douglas Corl Date: February 1, 1969

Activity	Evaluation of Experience
Drama group	I learned how to be a mother.
Artistic welding	Exciting -- the masterpiece almost finished.
Reading	Read Shakespeare and Poetry -- enjoyed it. Never thought about how
History	today is like the old days.

This form, a version of the daily log, didn't work. It was too cumbersome -- few took the time to fill it out.

GROUP EXPERIENCE RECORD

Inventor's Workshop Emil Brain-storming and original projects
Name of Interest Group or Activity Advisor Description of Activity

Beginning Date May 1, 1969 Ending Date June 1, 1969

Participants	Attendance	Comments -- Evaluation of Student
1. Fred Roedel	Perfect	More and more involved; many contributions creative. Read three books and shared information.
2. Caryll Spencer	Perfect	Involved; helpful in facilitating group interaction; shared many original thoughts.
3. Jessie Lancaster	Missed half of sessions	Many contributions; spent hours on original project. Wrote an excellent report on Eli Whitney.
4. Frank Miller	Attended most sessions	Invented an electric nail filer; quietly attentive. Contributions to group increased one hundred per cent.

This has been a continuously successful form. Each staff member or volunteer is requested to fill out the form for any group of two or more students. It's use is enhanced when the information is transcribed to the students' folders.

INDIVIDUAL LEARNING PLANName Bruno Bellanfanti Room 6 Date Planned May 10, 1971

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:30 a.m.	Storytime	Swimming	Storytime		
10:30 a.m.	Math for Fun	Swimming		Beginning Norwegian	
1:00 p.m.	Wishes, Lies and Dreams	Calligraphy	Inventor's Workshop		
2:00 p.m.	Shop	Problem-Solving		Beginning Chinese	
After School	Swim				
Evening	Reading				

This form was particularly useful when mini-courses by the dozens could be recorded by students. Older students have helped younger ones to plan, particularly during first half-hour of the day during their base station time.

TRIP RECORD

Staff Name	Dorothy
Date	June 1, 1971
Time Out	9:00 A.M.
Destination	Washington Park
Estimated Time of Return	12 Noon
Students Taken	Donald Swan
	Achilles Nickles

This sheet not only locates staff and students, but records all trips, which can be reviewed at the end of any time period.

STUDENT SIGN-OUT

The same as Trip Record, but cumulative on one sheet placed on the main office counter. Useful for keeping some track of students, particularly if parents or others need to find a student!

ROOM USE SCHEDULE

Outside each room, post an accordian folded paper with tabs for each half-hour of the day -- class name can be inserted and changed readily. This was useful, but needed a "coordinator" for each room so that its use could be cleared. Otherwise there still tended to be conflict in room use.

FIELDSHIP (Mini-Apprenticeship) EVALUATIONName Dildar Treadway Age 16Learning Station Cuckoo's Nest ShopMaster Rick NielsonApproximate number of hours involved 25Dates March 10, 1971 - June 5, 1971

Evaluations should include such areas as:

- | | |
|---------------------------------|------------------------|
| 1. Tasks performed. | 5. How this experience |
| 2. Tasks observed. | might prove helpful |
| 3. Specific accomplishments. | later on in the |
| 4. In what ways student related | student's life. |
| with others at work. | 6. New things student |
| | thought up to do - his |
| | initiative and creati- |
| | vity. |

Evaluation of Experience by "Master" (continue on other side)

Quickly picked up skills -- made a belt, wallet and began to learn cutting and sewing techniques.

Dildar was a great help as saleslady, having sold over one hundred dollars worth of merchandise. She was dependable, and took over the shop for us by herself several times for periods as long as two hours.

Evaluation of Experience by Student (continue on other side)

I loved it -- learned much about people, selling, and working with leather. It made me think about opening my own shop someday.

We found this useful for introducing the "master" to some of the possibilities for giving the student a varied experience, and for a good record for the student's folder.

Individual Project Certificate

Project: Building An Airplane That Flies

Dates: 12/71 to 12/72

Student's Name: Jack Finegan

Objectives: To build an airplane that I could actually fly in.

Evaluation:

It never flew, but I learned a lot about building a plane. The wings were too short.

Teacher Bibbi Hansen *SIC* Sally

MINI COURSE CERTIFICATES

Samples of subjective and more concrete handling of objectives and evaluation are given. Many variations of this approach are possible. One certificate could be given simply stating "Course Certificate." A student essay along with the teacher's essay could be placed on the back of the certificate or with an adjoining sheet. This provides a record in the student's folder that should be useful for future reference.

SUGGESTED PARENT-STUDENT CONTRACT

The minimum requirements for students are:

1. Regular attendance at base meetings, unless with another approved project.
2. Making a learning plan and carrying it, or alternatives out.
3. Having regular communication with one or more of the staff.
4. Helping others, the school, or the community.

I have read and agree with these requirements.

Signed: _____ Date: _____

The minimum requirements for parents is:

Commitment of one full day of work with the school per month by at least one parent. This could be in the line of giving courses, office work, attending meetings, fund raising, providing transportation, etc.

At the present time I feel that I might best fulfill this obligation by:_____.

Signed:_____ Date:_____

A contract such as this, incorporating your own expectations of students and parents should be helpful in luring more parents into more involvement - particularly parents who still think of school as separate from themselves.

SAMPLE CHECK LISTS FROM RIVERDALE SCHOOL'S UNGRADED FIRST - THIRD GRADES

MATH CHECK LIST

		NAME Frank Billings	
		<u>Date</u>	<u>Comments</u>
I. <u>Sorting and classifying things into sets</u>			
Determine number in a set		8/70	Comfortable with this
Determine when sets are equal or not		8/70	Yes, expertly
II. <u>Comparisons</u>			
Twice as tall as, four times as heavy as		9/70	Yes
Use letters, symbols to name lines, angles, points of intersections			
Recognizes shapes: circle, triangle, rectangle, polygons			
III. <u>Counting</u>			
Up to 20		8/70	Yes
By 2's, 5's, 10's, 25's, to 100		9/70	All but 25's
By 100's to 1,000		9/70	Yes

IV. Number line.

Can make up to 100	9/70	Yes
Place value		
Regroup numbers in preparation for carrying and borrowing	9/70	Not sure of himself
Use zero as place holder for ones, tens, hundreds	10/70	Almost has it

(Other areas covered were: Measurement, capacity, weight, time, fractions)

COMMUNICATION SKILLS CHECK LIST

NAME Kathy Grafos

Date Comments

I. Auditory-Visual Discrimination

Gross sounds

Looks left to right on page

Looks top to bottom

Distinguish letters by shape and sound

8/70

Yes

II. Phonetic Analysis

Identify consonants

2/71

Yes

Identify vowels

III. Dictionary Skills

Alphabetize words

Use of simple glossaries and dictionaries

3/71

Looking up words on own initiative, daily

(Other areas covered were reading comprehension and expression in oral reading; study skills)

 BEHAVIORS TO BE ENCOURAGED CHECK LIST

NAME John Stuart

Date	Comments
1/71	His model building project after fifteen hours of work was destroyed by another student. He talked the student into rebuilding it with him.
1/71	Researched prehistoric creatures in library and at home for hours - wrote notes from seven books.
8/70	Helped other student with reading for a half-hour or so most days throughout month.

I. Personal Adjustment

Adjusted well to difficult situation

II. Creativity and Initiative

Worked out satisfactory solution when faced by unfamiliar or unexpected situation

Carried out original or creative project

1/71

III. Sensitivity to Others

Cheered up, complimented, or encouraged others

Helped other children with school-work or other situation

8/70

Similar to the credit system in my eighth grade, these somehow remind me of "Job Sheets" that I have seen used successfully with teen-agers in vocational schools where they are evaluated on the basis of programmed jobs, going from simple to allegedly more complex tasks. In free schools the check-list has been useful for reassuring the parents, teachers, and students that something is happening.

When tailored to your program check lists can be valuable. For example, I would like to know if students in my school could recognize all the letters of the alphabet, and if they could write them when given by another person (since this, to me, is the most significant first step in being able to grasp reading).

The danger of the check list is the tendency for them to become report cards: useless for parent, teacher, and student. The more the student is involved in filling them out (evaluating himself) the more valuable they should be.

SUGGESTIONS SHEETS FROM PETER FROTHINGHAM'S SIXTH AND SEVENTH GRADE

TAKE TWO OF THE FOLLOWING SUGGESTIONS THIS AFTERNOON:

Math

1. Make a math bingo game and play it with others.
2. Do the math sheets on the table by the desk.
3. Choose a partner and quiz each other on times tables or fractions in Chapter II.
4. Study the geometric figures on pages 120 - 130. Do odd numbers in the exercises. See if you can make "geometric pictures."

Reading

1. Listen to tape of readings from Death at an Early Age with others and discuss it afterwards.
2. Read something new to you, and list words that are new to you as you go along. Use a few of them in a sentence or story.
3. Read a story in the reading book with someone and make up questions to challenge each others' understanding of the story.

In a basically conventional classroom, sheets like this (similar to Leicestershire suggestion cards) can be helpful.

FORMS THAT HAVE BEEN USEFUL TO ME IN THE GRADES AND HIGH SCHOOL

SIGN-OUT SHEET

<u>Name</u>	<u>Destination</u>	<u>Time Out</u>	<u>Estimated Time of Return</u>	<u>Time In</u>
John	Public Library	9:00 a.m.	10:00 a.m.	12:00 Noon
Fred	Undertakers	10:00 a.m.	2:00 p.m.	

A SHEET OF NAMES

<u>Date</u>	<u>Names</u>	<u>Oral</u>	<u>Comp.</u>	<u>Speed</u>	<u>Eval.</u>	<u>Comments</u>
4/23	Abare, John					
4/23	Atkins, Berlin	-	+	300	X	Stutters when reading aloud.
4/24	Bedore, June	+	0			
4/25	Alexander, Arthur	+	+	400	X	

I have found this simple sheet of mimeographed names as personally useful as any other form. I have kept track of dozens of things in this way, from whether or not I had managed to spend fifteen minutes or more getting to know a particular student, to attendance. In the sample above I recorded my evaluation of the student's oral reading ability (column 1) where plus (+) indicated above average and minus (-) indicated I felt he needed much help; comprehension (from an informal Durrell reading test); speed (words per minute with material that was fairly easy for him to read); and a check if the student and I had had a conference for the purpose of evaluating his progress during the past month or so.

COMMITMENT AND HAPPENINGS SHEETS

Name	Plans	Date	Est. Time	Actual Happenings	Time
Virginia Sailor					
1/28	Math	1/28	1 hr.	Math	½ hr.
	Writing		1 hr.	Baseball	4 hrs.
	Baseball		1 hr.		
1/29	Science -- glider making	1/29	1 hr.	Spelling	½ hr.
	Write science report		½ hr.	Public Library	3 hrs.
	Spelling		½ hr.	Park	1½ hrs.
	Park		1 hr.		
	Public Library -- browsing		2 hr.		

Although I have had limited success with the sheets above, some classrooms and schools have used them successfully.

NAME _____

Credit Scale for Six Week Period

A = 30 or above

B = 20 - 29

C = 15 - 19

D = 14 or below

Grand Total _____

Grade _____

SOCIAL STUDIES	CREDITS					TOTAL
1. Research from three or more books (and, or) magazines about Oregon, the United States, a country of interest or social problem = 3 credits.						
If 75% or more in own words = 2 credits.						
If the three articles are related by you, particularly if the articles disagree = 2 - 4 more credits.						
If you relate four books = 5 credits.						
With complete bibliography (including title, author, date, and pages) that tell clearly where you got which information = 2 more credits.						
If over 600 words = 1 credit.						
If over 1000 words = 2 credits.						
If over 3000 words = 3 credits.						
Unusually fine quality = 2-3 more credits.						
If you use four books = 1 credit.						
If you use six books = 2 more credits.						
If you use eight books = 3 more credits						
If you use ten books = 4 more credits						
2. Taking part in oral discussion group about problems having to do with people for $\frac{1}{2}$ hour or more = 1 credit.						
3. Enjoyment of study:						
If you sort of enjoyed it = 1						
If you enjoyed it much = 2						
If you really enjoyed it very much and were very involved = 3 credits.						

NAME _____ Credit Scale for Six Week Period
 A = 30 or above
 B = 20 - 29 Grand Total _____
 C = 15 - 19 Grade _____
 D = 14 or below

PHYSICAL EDUCATION	CREDITS					TOTAL	
1. Improve your swimming ability: Double the number of times you can swim across the pool = 5 credits.							
2. Learn to catch a ball = 50% better = 5 credits 100% better = 10 credits.							
3. Improve your running speed in a 100 yard dash: 50% improvement = 10 credits 100% improvement = 20 credits.							
4. Learn a new sport (baseball, football, four-square, basketball) = 5 for each new sport learned.							
5. Play a sport you already know for ½ hour = 2 credits (each time).							
6. Learn a sporty trick (standing on your head, climbing a rope or tree, bouncing a basketball behind your back) = 5 for each new trick.							
7. Take two bicycle trips: 10 miles = 5 credits for each trip 20 miles = 10 credits for each trip 30 miles = 20 credits for each trip.							
8. Climb up two mountains (over 1,000 feet) 3 to 10 (depending upon the size of the mountains).							
9. Jogging or running (anywhere) 2 points per half-hour.							
10. Make up 5 of your own exercises and do them daily = 5 credits for each week.							

These forms are particularly helpful if parents or
students desire marks.

CONTRACTS

I, E.M. Bernstein, will meet Jack and Bob at 8:00 A.M. and take them to Harold Oliver in return for:

1. Jeff thinking hard with self-evaluation, doing a self-evaluation today.
2. Both pick out two activities in a subject area and doing at least one each day for the next month.
3. Both write a good report comparing the two eighth grades on Thursday, the day of the visit to the other school.

Signed: E.M. Bernstein

Jeff Robeson

Jack Hobo

This worked for Jeff and Jack. For some, it is useful. Some schools, such as Newton, Massachusetts Junior High School, have used the contract system for every subject.

ENDING NOTES

About Forms

The forms presented have not been systematically proven to be valid, objective, or reliable except through use of student and teacher subjective judgment. I have found that most forms have only a few uses:

1. For the school to keep track of itself (which takes hours of research through the forms);
2. For the student to review his progress (again taking research unless all forms are in a folder that is readily available to him); and
3. For use in telling others about the student, such as for transfer to another school; college or job applications. In any case, the student and staff working as a team, putting information in the folder from the student's as well as staff's point of view is crucial for a folder's optimum use and accuracy.

About This Chapter

In this chapter I have tried to share with you some techniques and resources which I have used to live more comfortably and productively with freedom. Take with you only that which rings true, for that's what freedom is all about.

RECOMMENDED READINGS ABOUT TECHNIQUES,
GUIDELINES, AND RESOURCES FOR LIVING WITH FREEDOM

Barton, Terry. Reach, Touch, Teach, New York: McGraw-Hill, 1970.

Good tips for teaching self-awareness.

Biggs, Maclean. Freedom to Learn, Menlo Park, California: Addison Wesley, 1969.

Excellent suggestions for facilitating self-discovery, particularly with math.

Dennison, George. The Lives of Children, New York: Random House, 1969.

Techniques and resources may be picked up from the great detail in which the author describes the ghetto children and their responses to basically non-coercive adults, the learning environment, and the world around them.

Fader, Daniel and Elton McNeil. Hooked On Books, New York: Berkeley Publishing Corporation, 1968.

The basic idea of the book is to arrange for children to own high interest books and have an opportunity to trade them. A large portion of the book is a listing of all sorts of great material for children that can be purchased for under fifty cents per book. This book, itself, is a pocket book selling for seventy-five cents.

Glasser, William. Schools Without Failure, New York, Evanston, and London: Harper and Row, 1969.

Packed with practical suggestions and techniques.

Holt, John. What Do I Do Monday?, New York: E.P. Dutton and Company, 1970.

Excellent suggestions for Monday and even Tuesday. The author describes well how he worked innovatively in semi-conventional classrooms.

Kohl, Herbert. The Open Classroom, New York: Viking Press, 1969.

A step-by-step handbook, telling teachers how to be innovative within the walls of a public school.

Laliberte, Norman, and others. One Hundred Ways To Have Fun With An Alligator and One Hundred Other Involving Art Projects, New York: Art Education, Incorporated, 1969.

Creatively intriguing.

Lee, Dorris M., and R.V. Allen. Learning to Read Through Experience, New York: Appleton-Century Crofts, 1963.

Concrete suggestions, many of which are particularly applicable to a more or less conventional classroom as well as an innovative room.

Moustakas, Clark. The Authentic Teacher, Cambridge, Massachusetts: Howard A. Doyle Publishing Company, 1966.

Some crisp and useful ideas.

Opie, Peter and Iona. Children's Games in Street and Playground, New York: Oxford Clarendon Press, 1969.
Very complete -- costs \$9.50 but worth it.

Rogers, Vincent R., Ed. Teaching in the British Primary Schools, New York: The MacMillan Company, 1970.

Thirteen noted British educators summarize the British open classrooms for five to eight-year-olds. It is, by far, the best resource for practical application by teachers. List price is \$3.95.

Von Hilsheimer, George. How To Live With Your Special Child, A Handbook For Behavior Change, Washington: Acropolis Books, 1970.

Packed with useful ideas, resources and approaches for use with "normal" as well as "disturbed" children.

Wilson, Forest. Architecture: A Book of Projects For Young Adults, New York: Van Nostrand-Reinhold 1968.

Teen-agers can read it and follow enough to start projects on their own.

Recommended Magazines Not Mentioned In The Chapter

Mother Earth News, Box 38, Madison, Ohio 44057.

Offers all sorts of exciting ideas and projects related to building, nature, farming, etc. Costs \$5.

New Schools Exchange, 301 E. Canon Perdido, Santa Barbara, California, 93101.

This is the central clearing house for those involved with innovative education. The year's subscription costs \$10 but includes an unusually complete catalogue of innovative schools in United States and Canada.

The Teacher Paper, 280 North Pacific Avenue, Monmouth,
Oregon, 97361.

Has timely articles about innovative education.
Costs \$2 for the four issues per year.

This Magazine Is About Schools, 56 Esplanade Street East,
Suite 301, Toronto 215, Ontario, Canada.

It's well worth the \$3.50 for four thick issues
per year, well-printed and well-selected articles.

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