

DOCUMENT RESUME

ED 082 892

88

RC 007 349

AUTHOR Burcham, Mildred, Ed.
TITLE New Approaches to Individualized Learning. Report of a Summer Institute (Willamette University, Salem, Oregon, June 11-15, 1973).
INSTITUTION Oregon State Board of Education, Salem. Oregon Small Schools Program.
SPONS AGENCY Newton Unified School District 373, Kans.
PUB DATE 15 Jun 73
NOTE 97p.; Related document is ED 072 895 (1972 Report)
AVAILABLE FROM Oregon Small Schools Program, 942 Lancaster Drive, N.E., Salem, Oregon 97310 (\$3.50)
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Educational Strategies; Evaluation; Individualized Instruction; *Instructional Innovation; *Learning Processes; Objectives; Performance Contracts; *Small Schools; *Summer Institutes
IDENTIFIERS *Oregon

ABSTRACT

Various approaches to individualized learning were presented at this 1973 summer institute, attended by 426 administrators and teachers. Major topics included individualized learning, steps of the learning process, open classrooms, contracting, learning centers, management systems, goals, and resource packets. It was noted that the idea of individualized learning shifts the emphasis from teaching to learning and that learning must be the important focus. An institute evaluation summary of the 366 evaluations returned was included. (PS)

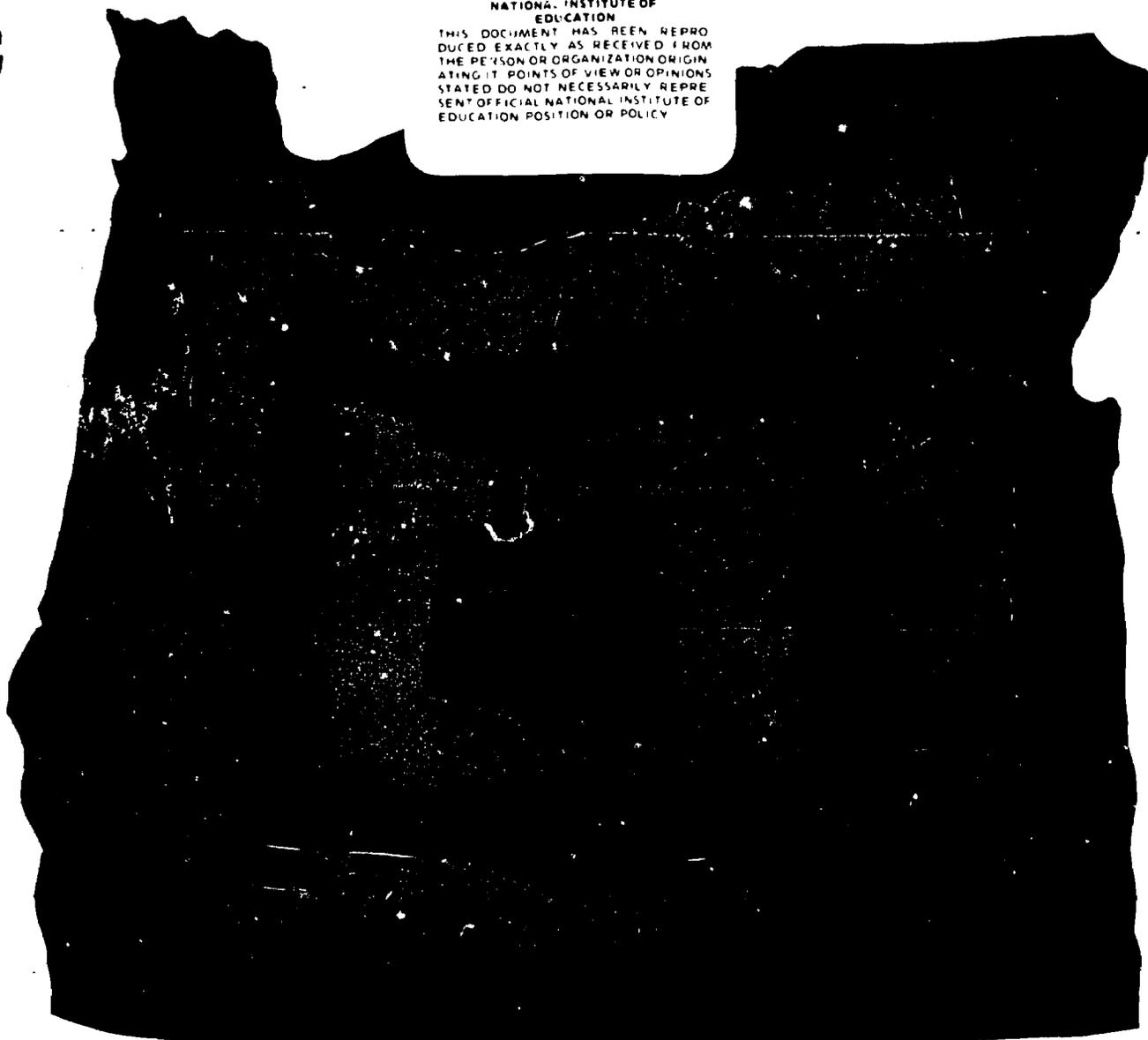
NEW APPROACHES TO INDIVIDUALIZED LEARNING



ED 082892

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REPORT OF A SUMMER INSTITUTE

June 11-15, 1973 Oregon Small Schools Program

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NEW APPROACHES TO INDIVIDUALIZED LEARNING

REPORT OF A SUMMER INSTITUTE
June 11 - 15, 1973
Willamette University
Salem, Oregon

EDITED BY MILDRED BURCHAM



PUBLISHED BY OREGON SMALL SCHOOLS PROGRAM, AN ESEA TITLE III PROJECT •
DONALD F. MILLER, DIRECTOR • IN COOPERATION WITH THE OREGON BOARD OF
EDUCATION • DALE PARNELL, SUPERINTENDENT OF PUBLIC INSTRUCTION •
942 Lancaster Drive N.E., Salem, Oregon 97310 1973



. . .the University has some fine old traditions. One of our newest traditions is to have the OSSP's summer institutes here. We hope they will continue, and we also hope your stay here this week will be very enjoyable.

--Dr. Wright Cowger

I know of no state where there is as much going on with small school districts, with such high quality, as what is going on in this state. This is a real tribute to Don and the organization for which he works and to all of you for your participation, for your sharing with one another. All of you should be very proud of this, and I know you are.

--Dr. Edward C. Pino

If you really want to individualize, you have to change more than just classroom strategies. Just as the teacher is going to have to reallocate her priorities to spend more time in things other than the teaching part of teaching, the administrator is going to have to reallocate time and money.

By delegating teaching functions to someone else, teachers have more time for diagnosing, prescribing, assessment, and contracting.

You have to have a plan, someone to be responsible for the plan, and it has to be an advanced plan. The components of a five-year plan are goals, objectives, time, facilities, personnel, staff, classroom strategies, funding, communication, evaluation.

--Dr. Edward C. Pino

We say that we are literally available to be with you, to talk with you, to rap with you, to counsel with you at any time, whether it be during the noon hour, whatever. We are here to help you.

It is very important to us that we have papers, contracts, IBM cards for you. These become your permanent records.

You should be constantly thinking about what is on your contract, what you set out to do, whether you are getting the helps that you need. These are the inputs that we need to help schedule and give you these things.

--Mrs. Marie Conlon

FOREWORD

This publication is the third in a series reporting week-long institutes held by the Oregon Small Schools Program at Willamette University in the summers of 1971, 1972, and 1973. Together they set forth for Oregon small school personnel a wealth of materials on individualizing.

In preparing *New Approaches to Individualized Learning*, we were mindful that it should be a useful reference tool for Oregon small school administrators and teachers interested in individualizing. *Its effectiveness in this regard depends on the extent to which it and its companion publications are circulated within individual schools.* Administrators and teachers are urged to keep this in mind. The publications will be useful even to those who did not attend the summer institutes.

The 1973 summer institute was attended by 426 administrators and teachers. It is significant that more than half these participants had their expenses paid entirely or in part by their districts. We, in the Oregon Small Schools Program, consider this indicative of the success of the program, particularly in the past three years.

The extent to which member schools have progressed with individualized instruction is documented in the *Independent Evaluation Report 1972-73* of Educational Coordinates Northwest. Their computerized comparison of findings in twenty-three areas shows a gain between the mean responses of the 1972 preassessments and the 1973 post-assessments. To us, this indicates that teachers believe there has been a positive gain in the degree to which individualized instruction has been accomplished and that the various activities of the Oregon Small Schools Program have assisted member schools in implementing various components essential to individualization. The two assessments were conducted as activities of Steps 2 and 4 of the Oregon long-range plan for greater individualizing.

The greatest gains were in administrative support, broadened learning experiences for students, and modification of grading systems. The area of least change was in school schedules; neither had there been much change in the use of teacher aides.

The only assessment question which did not show a positive gain was, Are you fully sold on the idea of individualizing your instruction? This seemingly reflects the frustrations encountered by teachers when they attempt major changes in instructional programs. Individualizing, as I am sure all those of you who have tried it agree, is a complex and difficult task.

In the future, the Oregon Small Schools Program will be operating somewhat differently than in the past. We have received permission to use all current carry-over Title III ESEA funds for the 1973-74 fiscal year. With these funds, local district support through membership contributions, and some assistance from the State Department of Education, we will continue as many regular activities as possible. We expect to hold regional and/or special interest meetings and a 1974 summer institute. We will continue our liaison

and clearinghouse activities for small schools, our quarterly newsletter for faculties, and as much in-service and consultative help as funds and time permit.

During the year, the program's steering committee and staff will be working with the State Department of Education in the preparation of a plan for absorbing functions of the program into the Department as a permanent program. This plan will emphasize making Department resources available to small schools and assistance in implementing the new graduation requirements and minimum standards.

This year will be a crucial year. We will need the complete support and cooperation of school districts, IEDs, and the State Department of Education if we are to carry out our indicated activities for 1973-74. We invite your continued membership in the program. Your support will be one way of indicating to the State Department of Education the need for the kinds of services available through the Oregon Small Schools Program.

Regardless of what the future has in store, many elementary and secondary small schools in Oregon are now moving forward with individualized learning and open classroom strategies as a result of the Oregon Small Schools Program and the hard work of dedicated educators. It is our sincere hope that this publication *New Approaches to Individualized Learning* will further this progress.



Donald F. Miller, Director
Oregon Small Schools Program

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ACKNOWLEDGMENTS

We extend to the following individuals our great appreciation for their generous assistance in making the 1973 summer institute an outstanding event:

Principals of schools in Salem who assisted in providing students for the open classroom demonstration: Steve Irving, Liberty School; David King, McKinley School; Robert Donovan, Leslie Junior High School, Sister Eileen Brown, Sacred Heart Academy, and Sister Wanda Marie Jordan, St. Joseph's. Students and their parents who cooperated fully in making the open classroom demonstration possible.

At Willamette University: Dave Lewis, who helped with the institute arrangements; Kevin Sell and Tom Sutroe, in charge of the food service; Wright Cowger and the excellent staff in the media center; and Pauline Smith, the charming, long-suffering house mother in Doney Hall...

Consultants who worked with school teams: Herb Nicholson, Hood River School District; Don Walton, Salem School District; and Del Aebischer and Jim Goddard, State Department of Education.

Dr. Carrol Hall of the ERIC Clearinghouse on Rural Education and Small Schools, New Mexico State University, Las Cruces, New Mexico, for sharing information about their services.

Commercial Exhibitors: Audio Visual Supply Company; Business Equipment Bureau; The Economy Company; Educational Systems; Ken Cook Transnational Corporation.

ATTENDANCE HONORS

These people have attended every OSSP summer institute, beginning in 1966:

George Fenton, Principal, Pine Eagle High School, Halfway
Bernice Payne, Business Teacher, Dayton Junior-Senior High School
Lyle Rilling, Superintendent, Jefferson
Lucy Susee, English Teacher, Harrisburg Union High School

WELCOME

Dr. Donald E. Egge, Deputy Superintendent

I am glad to be with you and to bring you greetings from Dale Parnell who is at this very moment with the Revenue Committee of the House. This has been an up-and-down legislative session, and Dale has been in the thick of it doing battle for schools, for children, and for teachers of this state. I bring greetings from Dale and the State Board of Education.

This conference has always been a highlight of the educational scene in Oregon. As a school superintendent, several of my schools participated fully in this program. We encourage members of our staff in the State Department of Education to attend, because we believe you are out on the cutting edge trying to get acquainted with ways to do a better job in the classroom. Members of our staff at the state schools for the deaf and blind are also here, and we are pleased about that. I even suspect that a few of the so-called "large" schools have representatives here because, in fact, you are pushing on the edge of new frontiers in the whole area of improved instruction.

This conference is a tribute to the necessary small school. It seems to me that we all have to work together as creatively as possible to learn new and better ways to deliver services to small schools and to encourage this very creative consortium that has been in existence for several years. As you know, Title III funding is perhaps coming to a close for the Small Schools Project. If it is, we have to find better ways to carry on these things. We appreciate the leadership of people like Don Miller, Chuck Haggerty, and the Steering Committee of the Small Schools Project, and this entire assembly. We look to them and to you for leadership in helping us find these new and better ways.

You have an exciting agenda this week. I have looked through it, and it seems to me that many agenda items are dealing with the current emphases in education: finance, efficiency, priorities, individualization, effectiveness. You could tie these into competency-based education. Competency-based education includes three basic elements: relevant goals, personalization, and performance. Your agenda deals with individuals, with staff, with institutions, schools, and school districts. Individualized learning, PPBES, the Tri-County Goals Project, graduation requirements, and minimum standards all relate to competency-based education. There are things happening in the Legislature which are going to allow you to have these things.

I know we are all pleased and impressed with the fact that the Senate last week passed the extension of the Appeals Board and the Fair Dismissal Act to all teachers in the state. This will help stabilize the profession.

I know you will have an exciting week. We are glad you are here in Salem. I hope that I can slip in occasionally and take advantage of what your program offers. Welcome to Salem.

1973 OSSP SUMMER INSTITUTE:

NEW APPROACHES TO INDIVIDUALIZED LEARNING

New approaches to individualized learning was the theme of the eighth summer institute offered by the Oregon Small Schools Program (OSSP) on June 11-15, 1973, at Willamette University, Salem. The institute followed logically the 1972 institute which provided insights into individualized instruction, as have other OSSP activities.

More than 400 elementary and secondary teachers and administrators from 70 of Oregon's smaller school districts attended. Four members of the OSSP Executive Committee and five members of the OSSP Program Steering Committee were in attendance also.

Dr. Edward C. Pino, president of the International Graduate School of Education (IGSE), Denver, Colorado, directed the institute. He brought with him the following staff, all of whom were experts in large and small group dynamics and experienced in educational learning techniques:

Dr. David H. Mathias, principal (on leave), Walnut Hills Community Elementary Schools, Denver, and vice president of IGSE

Dr. Walter "Wally" Armistead, assistant superintendent, Cherry Creek Schools, Englewood, Colorado (former high school principal)

Mrs. Marie Conlon, team leader (on leave), Cherry Creek Schools, Englewood, Colorado (experienced teacher from K through the graduate level, Colorado Teacher of the Year, 1971)

Mrs. Dorothy Butler, mathematics consultant, Brookings, South Dakota

Miss Virginia Roth, principal, Ryan High School, Omaha, Nebraska

David Kahl, director, Learning Center, Fargo Public Schools, Fargo, North Dakota

Also on the institute staff were the following consultants from Oregon:

Charles Barker, coordinator, Manzanita Elementary School, Grants Pass

Robert Sauter, principal, Lost River High School, Merrill

Paul McKillop, principal, Merrill Elementary School

James Ozburn, Lost River H.S. and Robert Freirich, Klamath County S.D.

John Fessant, industrial arts specialist, Career Education Section, State Department of Education, Salem

The institute program was an IGSE graduate course for teachers and adminis-

trators described in pre-institute publicity as--

. . .down to earth practical suggestions of what you can do next September when you return to your school. Special emphasis and in-depth coverage will be given to the organization of classroom interest centers, pupil-pupil learning activities, organizing instructional materials, grouping techniques and classroom records, management, evaluation and reporting.

Three quarter hours credit from the University of Oregon through the Division of Continuing Education, or two semester hours credit from the IGSE were available to participants. Dr. Arthur Hearn, professor of education, University of Oregon, was present throughout the week to advise those registering for credit from the University. Satisfactory completion of a learning contract developed by IGSE was required for credit from either institution.

Format of the institute was completely individualized. Participants were free to follow their interests. Some stayed with a chosen consultant, others listened to many. Everyone assessed his or her own needs, and contracted to complete work useful to his or her teaching or administrative assignment. Some contracts were of such length that the week of June 18-22, following the institute, was used for independent work on the contract. Some school staffs worked as teams on joint projects.

In speaking to the general input session on Monday morning, Dr. Pino outlined the activities for the week as follows:

Before we leave this morning, each of you will have gone through a diagnostic exercise. We will have placed a profile on your learning capability, needs, and interests, and will have drawn a learning contract consistent with what you would like to get out of this week. From then on we will provide a series of structured options.

There will be some basic presentations, but around them will be a wide area of options--different kinds of things that we hope will be of value to you.

First, there will be a very few, but some, large group presentations. There will be many medium and small group presentations, and opportunities for independent study through the learning packet which you have in your routing folder.





Beginning today, we will have small group and individual counseling sessions available. . . You have to sign up for the counseling sessions with the person who is doing the counseling. See the person who is doing the counseling after an option block on the day's schedule and make an appointment for counseling on an individual basis or for two or three of you. During the appointment time, the person doing the counseling will see only those who have been scheduled for counseling. If others would like to listen in, they may do so. All week long, all the faculty will be available to you by appointment.



Rap sessions are different than counseling sessions. When we announce a rap session, we mean that people can go to it, and there will be no announced topic. These are opportunities to work with the consultant, to ask him questions, and to pick his brains. These rap sessions are different than option blocks where there are announced topics.



We have brought several films with us. These are available during the evening sessions, but can also be viewed during the course of the day. There will be lots of show and tell sessions, particularly for those of you in this state who are doing some things that you are proud of--opportunities for you to show them to other people and to talk about them.



Wednesday we will have our classroom demonstration with 100 children. It will be done by a team of teachers headed by Dr. Dave Mathias. There will be "make and take" workshops. We want you to get your hands on stuff--many sessions will be heavily oriented that way.

For the rest of today, we will provide a smorgasbord of options with different people. If you want to go to an option block, pick out one you would like and be assured that particular topic will be covered in that time block. There will be time for questions and answers, but they will be on an announced topic as opposed to a rap session in which you pick the brains of the speaker with no topic announced.

There can be no schedule in individualized learning, except that one which is built every day. Therefore we will build a schedule every day. This afternoon we will go through each of your contracts, identify what you have listed that you want to do, and then we will every day, build the schedule exactly as we want you to build your schedule with your boys and girls in your classroom. (Daily schedules were distributed each morning at the large group input sessions.)

We will announce some case studies. If there is a faculty here with a particular problem that they would like us to focus on, we will put it on the schedule, and during that time we will talk about that particular case; those of you who might have similar problems can come and listen.

This is the way we are going to proceed--an option loaded environment, similar in kind to the way in which we would hope that you would be proceeding in your classrooms, again trying to practice what we preach.

Each participant received a routing folder. In it were a profile sheet, student diagnosis sheet, learning contract form, course evaluation form, a learning packet (course syllabus) and other information. Under Dr. Pino's direction on Monday morning, each participant immediately completed a learning contract based on his profile and diagnosis sheets. The faculty reviewed and approved the learning contracts on Monday evening after which they were made available to the participants. They reviewed and checked their contracts during the week to be sure they were meeting their contracts. On Friday the contracts were initialed by participants and faculty and returned to the participants.

Objectives of the institute as carried in the learning packet were stated as follows:

By completing this learning packet, the learner will:

1. better understand the level at which he is currently using good individualization practices and the next appropriate steps which he should be considering;
2. better understand several ways to increase his present individualization practices;
3. have identified at least one additional way to individualize his classroom instructional strategies "next Monday morning."

While the daytime activities were devoted to completion of the learning contracts, and to classroom strategies--large and small group input sessions,

counseling and rap sessions, the evening sessions were planned to present information on other topics of concern to participants, particularly to administrators. These topics presented by teams from the State Department of Education and local districts included new legislation pertaining to education, new graduation requirements, PPBES for small schools, and course goals. Bowling and golf, and a picnic, were enjoyed Wednesday afternoon.

Many materials were displayed during the week. The IGSE had a large exhibit, the Manzanita staff brought the display and presentation about their school which had been shown recently at the National Education Fair in Washington, D.C., and the Career Education Section of the State Department of Education made their learning packages available for examination. The OSSP professional library was accessible during the entire week.

Some "new dimensions" at the 1973 institute were the "Books on Exhibit," a sixteen-trunk display of new library books; displays on Tuesday, Wednesday, and Thursday of learning materials offered by ten commercial exhibitors; and a materials exchange at which participants offered their self-prepared materials to anyone interested in buying them. *The materials exchange was so popular that plans are being made to continue it on a larger scale at future institutes.*

A viewing center for films, slides, and filmstrips was set up and used extensively throughout the week. Many of the films pertained to individualized learning. The resources of the media center at Willamette University were made available, at a minimal charge, to participants desiring copies of materials.

Consultants made extensive use of overhead projectors and slides in their presentations arriving with trunks of materials from which they arranged extensive displays in their subject or topic areas. Several sessions were video and audio taped and will be made available throughout the state on request to the Oregon Small Schools Program, 942 Lancaster Drive NE, Salem 97310.

Before adjournment on Friday, 366 participants completed evaluations of the 1973 institute;



182 rated it outstanding; 11, very good, 152, good; 10, mediocre; 11 no rating. A summary of the evaluation findings appears at the end of this report.

Comments offered on the evaluations were on the whole favorable; some were critical, in some instances justifiably so; and some were suggestive for future OSSP activities. Typical comments were as follows:

I felt that I received more from the program this year than last. It was better in that we were given many practical ideas for use in the classroom that I have to work in and not the ideal situation. There are a lot of ideas that can and will be used.

I enjoyed the consultants and their presentations. I needed to get more information on how to begin and what not to do. In this I was helped so I can start in a small way.

I will be putting into effect some packages and contracts. I just regret that all teachers from my school were not here so more things could happen in more classrooms.

I would have liked to have been in groups according to subject area and to have written some objectives together, and then had you evaluate them.

The handout material I received was good, but I would have liked to have had some more.

More valuable for classroom improvement than any other course I have taken.

I picked up a wealth of ideas I can adapt for use in my class of nine students.



ERIC/CRESS is a possible source of information on small school topics. Write RURAL EDUCATION AND SMALL SCHOOLS, New Mexico State University, Box 3 AP, Las Cruces, New Mexico 88003.

Dr. Carroll Hall of ERIC/CRESS attended the summer institute. He said the ERIC Clearinghouse for Rural Education and Small Schools (ERIC/CRESS) is responsible for information on organization, administration, curriculum, instruction, innovative programs and other small school topics. Subscriptions to the ERIC/CRESS quarterly newsletter are free upon request. Various monographs are prepared and distributed. ERIC/CRESS is staffed to answer only brief requests.

PART 1

MAJOR PRESENTATIONS

<u>Overview of Individualized Learning, Dr. Edward C. Pino</u>	
International Graduate School of Education,	
Denver, Colorado	17
<u>Five Steps of the Learning Process, Dr. Edward C. Pino</u>	23
<u>Oper. Classroom Demonstration</u>	30

OVERVIEW OF INDIVIDUALIZED LEARNING

*Dr. Edward C. Pino, International Graduate School
of Education, Denver, Colorado*

FIRST OF ALL, WHAT WE ARE TALKING ABOUT IS NOT INDIVIDUALIZED INSTRUCTION. IT PUTS THE EMPHASIS ON THE DELIVERY--TEACHING: WHEREAS, IF YOU WOULD USE THE TERM INDIVIDUALIZED LEARNING, IT WOULD SHIFT THE EMPHASIS TO LEARNING, SINCE NO ONE EVER TEACHES ANYONE ANYTHING ANYWAY. SINCE ONLY CHILDREN LEARN WE SHOULD NOT BE CONCERNED WITH THE TEACHING PART OF TEACHING. LEARNING MUST BE THE IMPORTANT FOCUS.

I would like to have you focus on three things which are quite simple and easy but very important when we talk about individualized learning. First, I would like to have you focus on Sally. Sally is about twelve. Sally's world in 1973 is not quite as fixed, not quite as firm, not quite as rigid as the world in which you and I grew up. Sally knows pretty much what her boundaries are. She knows that there is a beginning and an end. She knows where her home is. She knows where her friends are. She knows what she might wish to be at some future time.

I would like to have you focus now on the world that Sally will live in when she is our age, about the year 2000. The world will be so different then that ever. to conjecture on what it might be like may be quite naive and even suicidal. We know that it is going to be a very uncertain place. When Sally is thirty-nine, teaching in this state, trying to decide what she should do for her children, the problems that she is going to have will be much greater than the problems of today. Can you imagine what Sally will think are the things that her children should have in 2027? What will be the problems her children face?

First, there will be a population problem. It took all the years up to 1837 for the first billion people to arrive; 100 years for the second billion; 25 years for the third billion. The fourth billion is being raised in the fifteen years from 1970-1985. The fifth and sixth billion will arrive before the end of the century, before Sally is thirty-nine. So she will be living in the greatest pollution of all, the pollution of people which creates all the other pollutions.

Second, there will be a knowledge problem. All the time since man began to multiply, knowledge has been multiplying also. The first doubling occurred by 1850; the second, one hundred years later; the third, fifteen years later; the fourth as of 1973. The fifth, sixth, seventh, and eighth doublings will occur between now and the time Sally is thirty-nine. This raises several questions. How can we keep our knowledge together, store it, let alone retrieve it when it is necessary to retrieve it? Even more important is what knowledge is the most worth.

When we were in the fourth grade, at about age nine or ten, we learned the capitals of the countries of Africa. Does anybody know any of them? A tough question, isn't it. Particularly, when half of them have changed, when there

are twice as many of them as when we were in the fourth grade. Maybe, because of this knowledge explosion, we will finally recognize that it is not really important what the capital of Uganda is anyway, but rather what the lessons of Uganda teach us.

Most of you probably use some form of standardized test. Item 39 on the Iowa Test of Basic Skills asks for the three rivers that cross in Pittsburgh, Pennsylvania. How many of you can name these rivers? You should know them by the fourth grade. Regardless of whether you know them or not, the important questions are why are they there, why do they cross there, and how dirty are they? Because of the problem of storing knowledge and retrieving it, we are probably going to have to face up to the question of what knowledge is the most worth.

The third problem is mobility. One out of three Americans is now moving every year. The average executive now moves twelve times before he retires. We have a shifting, disoriented, lonely group of people who know not who they are or why. They move not with tents and camels but with cameras and cars, but the result is the same. They are lonely people. People without boundaries, people who know not what the future will be.

Another problem is technology. It is estimated that the person now six years of age will have to be retrained at least three times before he or she retires. The United States Office of Education estimates that we will be spending as much on adult retraining for the Sallys of the next twenty-five years as we are now spending on elementary and secondary education because we don't really know what the three Rs will be. So, the Sallys of the next twenty-seven years are going to face a very unsure existence. We ought to be aware, therefore, that the Sallys should be educated around a group of three Rs that are closely related to how to learn, how to relate, how to choose.

Let us now consider what is success. The research on how people reach success indicates that about 60 percent of a child's eventual success is wrapped up in his own self-concept; maybe 30 percent in his questing, or his challenge, or his ambition; and maybe only 10 percent in basic aptitude. Why then do we spend all our time with aptitude, especially at the secondary level? The research at McGill University indicates that after age eight you can only affect about 10 percent of this 10 percent. If that is the case, what is the high school all about anyway? So, the second thing I would like to have you focus on is an education for success.

Lastly, I would like you to focus on what happens to what we do in school. As you know there is very little that you can tell from standardized tests. There are a couple of things, however, that you can find out. If you do a composite ranking of kids by their scores, you will notice that there are very few first graders who are first graders. The only other thing that you can say assuredly about the results of standardized tests on a composite basis is that there will be fewer sixth graders who are sixth graders. *Despite everything that we do to make kids all come out the same, despite all the standardized tests, despite grade level design-*

nations, despite textbooks, despite units of study, all the kids do is come out more different. And so the third thing that we should learn is that regardless of what we do with kids, it is inevitable that they will become, more and more, increasingly different. The only thing that we have ever been able to do with any degree of success is to slow down the degree to which they become increasingly more different.

This then raises the prior question, what is education for anyway? I would suggest that the fundamental goal of education is not to develop sameness. The fundamental goal of education should be to develop uniqueness or differences, to make everyone flower in his own image--to become increasingly more different.

So those are the three things that I would like to have you focus on: Sally, success, and our goal in education. The question is not how far we have come. The question is how far do we have to go. Our strategies have to match our goal. But what have they been? Largely, we have copied three social institutions that are inappropriate to our goal.

I was taught that there were some unique characteristics of the American school. First, our job was custodial; second, our job was to promote intellectual inquiry. Studies report that maybe we are not doing very much in intellectual inquiry but lots in custodianship. Maybe we ought to start bragging that we are the best babysitters that America has!

What has been the social institution that we have copied in fulfilling our custodial role? Basically, it has been the jail. Our notion has been that school is a place despite admonishments that school is a process not a place. The only basic difference that I can see between the American jail and the American school is that the American jail is changing. The concept of place is changing as it relates to the jail, but the concept of place as it relates to the school remains the same--a place on a fixed site on the back forty, in a box. There might have been a time when this was appropriate, but not now with current research saying it is inappropriate.

The second model that we have copied is the church. Let us consider one fact which renders this approach completely useless. Before a five-year-old comes to his first preacher (teacher), he has watched 4,000 hours of TV; by the time he graduates from high school, 16,000 as compared to 11,000 hours from ages five to eighteen in front of all his preachers (teachers). The church, in terms of its delivery system, is an inappropriate model.

In terms of results, we have followed the factory model. We have tried to take raw and different material in September and manipulate it so it will all come out the same in June. We have followed this idea, although we know that kids on the production line will all become increasingly different. Our raw material cannot be made into a standardized finished product. Kids will become increasingly unique despite everything we do between September and June.

Since these three models are inappropriate, I suggest four other models that we should follow. First, the model of the Volkswagen dealership. Page 40 of the Volkswagen manual reads as follows: "Lots of Volkswagen dealers say that they can repair Volkswagens and lots of them really can. But they cannot offer you the Volkswagen diagnosis and maintenance of our new service system. Instead of trying to treat every Volkswagen with the same basic maintenance, we are now going to treat each Volkswagen as an individual." This means that your Volkswagen is going to get a special maintenance program. It is going to be given a special test with special testing equipment. You are going to get a test report; you are going to know the exact condition of your car and what is needed; what is needed will be done. The notion is very simple. If we can do it with a Volkswagen, why is it not an appropriate model for the schools? I suggest that the Volkswagen dealership become our model in terms of our basic approach to the development of uniqueness.

The second model is that of the supermarket. They believe in an option loaded environment filled with all kinds of stuff. Notice the marketing techniques. If the supermarket manager wants to move the peas, he puts them very decoratively on the third shelf of aisle 11. But where does he put the peas if he really wants to move the peas? He has them not only on aisle 11, which we call the library, but he has them up and down every aisle, always at the end of each aisle, and at the checkout stands. He has people literally stumbling over peas. This should be the marketing dimension of our public schools--all kinds of stuff, messy, and all about. Not messy messy, but messy to the degree that the kid will literally have to stumble over the stuff. That is the way it should be marketed--as it is in any part of our American society.

The third model is the travel agent. Some of your lucky ones are going to be traveling this summer. Suppose that you have options of going to two travel agents. Travel Agent A would say, "I am glad to see you here, Mrs. Brown. I am glad to know you are going to Greece. I have selected Greece as the place that you want to go. I have decided you are going to go for fourteen days. I have decided that you should spend about \$483. Now, let's go, and make sure it is done by the 26th."

Travel Agent B would say, "Where do you want to go? How long would you like to be there? Who would you like to go with? What would you like to find out? When would you like to come back?"

If you are for Travel Agent B, you would still want some structure. You would still like to see some packages. He would turn to his shelf, and he would pull out all kinds of different tour packages for you, truly offering you an option loaded environment. But once that structure had been provided, you would like the option, would you not? The option of choosing from among the tours, not having one chosen for you. Travel Agent B is more appropriate to our purpose.

The home is our final model because it is far more congenial, far more appropriate to the learning process and the strategies that we talk about.

The home is based on parity, congeniality, dialogue at the supper table. The best learning model that we have is the best American home. It is about time the school began to copy it.

I suggest these four models: the Volkswagen dealership, the supermarket, the travel agent, and the home.

What are we talking about when we talk about individualized learning? We are talking about five elements, the five P's. First, a new concept of place. A place built around congeniality. Whether or not a place is open has nothing to do with brick and mortar. Whether or not we run an open school is whether or not it is open in attitude to you and to me, learner and guider. That is where it is open if it is at all. The issue of how big to build the open self-contained box is another issue. The most valid criterion of openness is not the space between the closed brick and mortar. The most valid criterion is congeniality, and openness is anywhere there is congeniality. That is where school is.

Second, school must be wherever there is trust. The University (IGSE) now has 35 demonstration schools across the country. One of our lab schools is in New York City in the middle of Manhattan. Three years ago when we started working with this school, there was a cop in the doorway, in every restroom, down the hallways, and there was a cop watching the cop in the library. Now, three years later, no cops. Why? How? The teachers recognized that just about everything in that school reeked of distrust, that the school was built on distrust. Since trust is an antecedent to all learning you have to start with trust; otherwise there can be no learning. And so, gradually over the three years the cops dropped off. You will be surprised how fast your school can move if you want to move it in a direction of trust.

How clever the other professions have been, and how stupid we have been to waste all our time on the teaching part of teaching. Ninety percent of our time now goes to this. Until we get off this kick, we will plead and cry for more time. There is only one way to find more time and that is to attack time where time is. If you can pass most of the teaching on to high school kids, to college undergraduates, to aides, to paid volunteers, to nonpaid volunteers, then there will be some time to devote to the professional aspects of the act. *So what we are talking about is a program of personalization built around a five-step process of diagnosis, prescription, contract, treatment, and assessment.*

Surely all of us have been individualizing. The issue is how can we do it better. We need to increase the degree to which we help children learn rather than the degree to which we make children, by our teaching, do something. Our role is that of a guide as we help children learn.

In personalization (people), two things have to happen. First, the scale of people to people has to be changed so we can return to the essence of self-containment. If we want to really have self-containment, the scale of 25 to 1 must go. The scale must be changed so that there is an interdisciplinary team of about twelve adults helping 150 kids. An interdisciplinary team is necessary so that your soul will not be sold to a schedule. Second, these

people must have different qualifications. Forget all about teaching certificates, college degrees, and eighteen hours of German. Ask whether the person is a good human being, does he have something to give, does he have a way of giving it, is he a loving and trusting person. These should be the qualifications for a teacher.

Fourth, is program. This week we will talk about program components, but also look for a balance between the cognitive and the affective. Instead of teaching the three rivers that cross in Pittsburgh, why not take the K-12 curriculum and divide it in half? Give each kid four affective value orientations: paid work, nonpaid service, exchange, and tutoring in the lower grades. This doing part should be 50 percent of the high school, junior high, and elementary school experiences. This does not mean that you do not teach the three rivers. You just put them in a different priority so that you pick up half the time, half the resources, to do something else. Does this require more money? Of course not, because we have substituted paid work for every kid, nonpaid service, exchange, and tutoring.

Program balance should be in the area of freedom and control. The greatest freedom we now give kids is at the kindergarten level. Then we slowly lock them in so, that by the time they graduate from high school, they cannot even go to the restroom without a pass. What we need is the opposite, a beginning with narrow degrees of freedom and then moving to enlarged degrees of freedom. The boundaries are still there, they are heavy, and they are consistent. Everybody craves boundaries. But, the direction of the boundaries has been changed. As the kids are able to handle more freedom, they are given more freedom. So you start with narrower degrees of freedom.

The learning style needs to be in groups, because we are talking about group activity, not individual activity. To do otherwise is to deny the kid opportunities to relate, to deny small group interaction. Most of our activity should be in groups of two, three, four and five kids. This means that most classrooms will have six or seven groups of three, four, and five kids, lasting for three, four, and five days. These groups will be based on the interests of the children the problems that they perceive, their achievement levels, and their learning styles.

Finally, what should the learning and teaching styles be? They should be based on parity. By parity, we mean that every kid will have at least 50 percent ownership in the structure of the classroom, in the building of materials, in the setting of the agenda. Truly, parity means equity, which in turn means 50-50 ownership. The kid should have half the say, the teacher should have half the say. If the teacher has something to pass on, she should have that right. If the kid has something to pass on, he should have that right. So a balance should be built around parity. Then the teacher's job is to guide, to float among the groups, to ask questions, to love, to trust, to reinforce, to rearrange, to fix the agenda, to refix the agenda, to listen, to observe.

These then are the five P's of individualization: place, personalization people, program, parity.

FIVE STEPS OF THE LEARNING PROCESS

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THIS COMPLETES THE LEARNING CYCLE: DIAGNOSIS, PRESCRIPTION, CONTRACT, TREATMENT, ASSESSMENT. ONCE THE ASSESSMENT IS DONE, THERE IS A NEW DIAGNOSIS, WHICH LEADS TO A NEW PRESCRIPTION, A NEW COMMITMENT, A NEW TREATMENT, A NEW ASSESSMENT. AROUND AND AROUND YOU GO. AN ENDLESS CYCLE. INDIVIDUALIZED LEARNING.

This morning we will go through each of the five steps in the learning process in some detail. But first let us talk about an umbrella for them, that is, objectives. First, you have to obtain the objectives. Let me give you a source for a good set of objectives. You can write to the Instructional Objectives Exchange (IOX), Center for the Study of Evaluation, U.C.L.A., Los Angeles, California. They will send you some 16,000 instructional objectives for every content field at every age level. I do not recommend that you do this on an individual basis because they are marketed in an encyclopedic form. Your district, or school, or maybe the Oregon Small School Program could order a set or two to rotate. A whole set costs several hundred dollars. These objectives are a good place to begin, to get ideas, to check against the list that you are developing.

When you get these objectives, you must recognize that some of them will meet your purposes and some will not. As you gain expertise and sophistication, you will begin to write your own, but instead of starting from scratch, use the objectives that other people have written, exchange here and there. Then rewrite the other people's objectives--learn to write your own through rewriting those of others. That is the way to ease into the whole matter of objectives. You will soon learn how to adjust to your needs the objectives that other people have written. Eventually, the kids will begin to write their own objectives.

As you move to a higher level of sophistication in objective writing, you should have the kids write almost all their objectives whether or not they do this from your list or from their list. This activity could begin at ages six and seven. Even four- and five-year-olds can specify in their own words what it is that they want. You can have them translate into their own words those things which you feel are important. It is important that the kids have a role in the development of objectives. First, they talk the other kid's language, and they will put objectives into terminology that is appropriate for kids to read and understand. Second, writing objectives is a good creative writing exercise, a good way of helping turn your language arts program into servicing all the other content areas.

After you have obtained the objectives, the next step is to arrange them into a working format. The format that we have chosen for this institute is the one that you are now using called the "profile sheet." We have given you an individualized learning profile sheet. You will need to develop profile sheets like ours in the area of math, or language arts, or whatever

your area may be. The format should be exactly like the yellow sheet that you have in your routing folder. Each child will have one of these profile sheets in his routing folder. He will have a profile sheet in math, in language arts, in science, in social studies, in all the content fields with which he is working.

So, when you have your list of math objectives, you pull out the objectives that you feel should be on the profile sheet. You list them indiscriminately because you have found that the whole notion of scope and sequence is poppy-cock. Kids learn when they learn. The minute that you allow each kid to learn in the order of his choice, you will find that one kid will want to work on the sixth objective, another will want to work on the eighth, and another will want to work on the tenth. You let them. What difference does it make how you arrange the objectives? So, do not spend a lot of time trying to find the proper sequential order of objectives.

After you have arranged the objectives, develop a coding system that will let you know who has covered each objective. The box on your profile sheet where you draw a slash through the box for objective one when it has been introduced and another slash to make an X when it has been mastered shows one coding system. If you want to bring up an objective for reinforcement later, you draw a circle around the box. If you want to bring it up for reinforcement still later, you can blank it out. You can form all kinds of coding systems to indicate different levels of sophistication, different lead times, different reinforcement cycles. The important thing is that you have a coding system.

Let me give you an alternative to profile sheets. Another popular way is to use 3 X 5 cards. You put one objective on the front side of the card and have a deck of such cards for a particular content field. Have the kids punch a hole in the corner of the card when a particular objective has been introduced. After it has been mastered, they can punch the hole through to the edge. Then you can put a needle through the holes, and the cards that fall to the floor form one skill group; the ones that stay on the needle form another skill group. Thus you have combined your grouping practice with your record keeping system.

There are lots of different ways of record keeping. The point is that you must have a record keeping system, because there is no way to keep track of the kids unless you do. Unless you have a record, you are going to be in deep trouble with the parents in a year or two. These types of record keeping, that I have just explained, are better than what you have now because any parent, any principal, any superintendent, any kid can go right to the routing folder at any time of any day, of any week, of any year, and know exactly where he is in any content field. They are far more exact, far more retrievable, far more comprehensive than C in a record book which means nothing. You have to have a coding system that will let the kids know where they are and let you know where each of them is.

Now, we are ready for the first learning step, diagnosis. We need to find out two things since the objective of the diagnostic step is to locate the

right objective. First, you try to move from a general condition, or set of objectives, on a profile sheet to a particular objective that seems to be the most appropriate for Sam at this time. Second, you try to isolate the right learning style for Sam--the best way in which he can learn this particular objective. The mode that you use is a deductive one. You move from the general to the specific, from a broad set of objectives to a particular objective on the profile sheet.

What are the tools of diagnosis? Let me give you six very quickly. The first is observation, and the second, listening. These are your two most powerful tools of diagnosis. They represent 50 percent of your diagnostic activity. You will not have time for them if you do all the teaching; you have to turn the teaching over to kids--have four or five groups of four or five kids each working at resource centers. Then your job is to float among these groups and to listen, to observe, to find exactly what you should be doing in terms of future objectives and learning styles for Sam. What are you listening for? What are you observing? You are trying to find out if the child is on task and what his level of sophistication is. Obviously, you have to listen very carefully and observe most acutely to make sure that the child is on the task and that he is on the task in the right way.

The tools of diagnosis are very difficult, very time consuming, very sophisticated. We are not familiar with them because we have never used them very much: we have spent all our time doing other things. The only way that you can really develop a high degree of proficiency with them is to really practice them--practice them with other teachers, do dry runs with other teachers, and see what they see so that next time you will see it for yourself.

The third diagnostic tool that you should use the next most frequently is what we call "oral questioning" because diagnosis is simply testing. The question then arises whether you do the testing orally or whether you do it in writing. Obviously, we have used written testing most often in the past, but it is a very inefficient form of questioning. Therefore, we recommend that about 25 percent of your diagnostic time be spent in oral questioning--the mode of the medical practitioner. He has learned that he cannot spend time with a lot of written reports. That does not mean that he does not do electrocardiograms and x-rays, but he has found that he has to ask some very quick questions. That is what you must do. How do you do it? You go to Sam's 3 X 5 card, turn it over, and on the back write the two or three most appropriate questions that should be asked about that particular objective. Where do you get those questions? There are several sources: you, your fellow teachers, the kids. You will find that kids can not only dream up the questions, but they will phrase them in kid terminology. A fourth way of getting questions is a combination of all these ways. Then use the cards as cue cards. If you cannot remember the right series of questions to ask, you refer to the appropriate cue card.

The fourth diagnostic tool is manipulative testing. Ask the kids to manipulate something meaningfully, and you will see if there is understanding or not. Every teacher should have a set of manipulative materials, all kinds of manipulative devices. These should be readily available for use as diagnostic tools as well as teaching aids.

The fifth diagnostic tool is written tests. They may be used about 5 percent of the time, not more than that. Do not worry about writing the test, because you have already written it. You wrote it on the back of your 3 X 5 cards. All you have to do is to hand out the 3 X 5 card and tell the kids that, instead of giving you oral answers, it would be more efficient today if they took the card over to a post-test desk, wrote out the answers and then handed them to you. You then hand the answer sheet to the answer man at the post-test desk and let the kid do the correcting. In other words, you do not think in terms of 100 items, multiple choice, true and false tests anymore.

The sixth diagnostic tool is to just do some teaching. There is no substitute for sitting down with a kid sometimes and trying to find such things as his appropriate learning style, his attention span, the way in which he works with manipulative materials. You will have to budget some time for this.

About 20 percent of the teaching that you do will be diagnostic teaching, and the rest will be the first presentation of new material. All other teaching will be turned over to kids.

In summarization of diagnosis, the objective of the diagnostic learning step is to isolate the right objective and to find the right learning style for the youngster. The mode is a deductive mode, moving from the general objective to the specific objective. The six tools are observation and listening, by far the most important; oral questioning, which should take up maybe about a quarter of the time; manipulative testing; written testing; and actually working with the child.

The second step of the learning process is prescription. We have now isolated the right objective and the appropriate learning style of the child. What is the prescriptive step? It is not a teaching step; it is not a work step; it is not a process step. It is a decision step. All you try to do is to make a decision about information that you now have at your disposal. You try to put together the objective that you have decided to work on with Sam, the appropriate learning style for Sam that you have decided upon, your style as a teacher, and all the resources that you have that will help. The prescriptive step is nothing more or less than making a match of these four things. The trick of proper prescription is to have a wide repertoire and rich, rich resources--lots of options, lots of styles. We would recommend no paper work because you already have the paper work completed on your profile sheets.

Now, we come to the singularly, most important, professional part of the entire learning process, the contract. What are its purposes? Its most important purpose is to serve as a joint commitment between learner and teacher. Everyone comes to school with commitments. There is no problem with commitments. The problem is to get a joint commitment. You may call it contracting, or whatever, but the important thing is this joint commitment. Motivation for such a commitment is a very sophisticated thing in education. Motivation and all the problems of the reluctant learner are

involved. If you are not able to develop this joint commitment, you are dead with everything else. This is what the contract step is all about, getting the joint commitment.

The contract serves as a road map. It tells the kid what he is to learn and how he is to learn it. It should serve as his report card. There is no need for any other kind of written report card system. There are great needs for other kinds of parent-teacher communications, but not for any other report card. When the contract goes home with the child the second time, it indicates to the parent very clearly, very precisely, whether or not the child has learned that which you set out to have him learn. Finally, it serves as a permanent file. The completed contract comes back to the school with the signature of the parent and is then placed in the kid's permanent file. You then have the complete cycle of the reporting and recording system. You have the profile sheet which is your record, you have the contract as the report card, and now you have the contract as the permanent record. All of the completed contracts are placed in the child's file at the end of the year, are summarized, and passed to the next teacher, thus forming a complete cycle, a very accurate record.

What does a contract look like? Just like the one you completed yesterday. It carries the student's name, the objective on which he is to work, how he is to do it, the constraints, and the sign off. The kid signs it, then it goes to the teacher who signs it. Then it goes home to the parents, who, if they believe it is reasonable, sign it. This is the way that you work on parent support. After completion of the contract, the kid signs it, the teacher signs it, and it goes home for the second time to the parents as a report card which says the child has completed the objective that all agreed he should. Then it comes back to the teacher who places it in the kid's permanent file.

Contracts, as in real life, can be oral or written. Obviously, you do not give a written contract to a three-year-old, but at about age four or five, you will begin to use some written symbols, pictorial, or whatever. By age seven, you have written contracts, but not always. Even at the high school level, maybe half your contracting will be oral, and some of it will be both.

Contracts can be short or long--long contract: by the end of the prescribed period, Johnny will know the multiplication tables 1-10; short contract: by the end of the prescribed period, Johnny will know the multiplication tables through the 1's, 2's, and 3's. What are the advantages of the short and long contract? Short contracts make the diagnostic and assessment steps easier. The more precise, the shorter your objective, the simpler the diagnostic and assessment steps are. The second big advantage of contracts is the PR advantage. Contracting is your PR vehicle for proving to parents that you are doing what you are doing, what you say you are going to do. If you skip this step, within a year your program will be in jeopardy.

Contracts can be amended at any time. If Johnny does not meet his contract, you have two choices: write failure across the face of the contract and send him home feeling unsuccessful, or put your arm around Johnny and say, "I never

realized that you could get to the 8's, how in the world did you do that? I'm so proud of you. I am sorry that I prescribed the wrong pill for you, and like any other professional person, I will be humble and admit my mistake, and I will change the pill." And you amend the contract.

In contracting you may be right about half the time. When you are wrong, do not blame it on the client. When you are wrong, change the pill. That is exactly what you have to do. This does not mean that the kid is always right, and you are always wrong. If you have done a good job and have amended the contract several times, and the kid is still in trouble, you sit the kid down and counsel with him just like you counsel with any kid, except for one important difference. Now, you have a written commitment, and you can say, "Look, you and I sat right here, and we both agreed that this was reasonable. Now what in the world happened?" This forms a good basis for counseling, but you do not do this until you have given at least two or three chances for contract amendment.

Treatment is what this whole course is about. Let me highlight three or four things about treatment. We are talking about group activity, five to seven groups in a classroom. We are talking about groups organized for about five instructional days, around five criteria. These five criteria are the interests of the children, the problems they think they have, their learning styles, broad curriculum themes, and their achievement levels. We are not talking about above average and below average grouping but the three children that are at a 150 words a minute reading speed. So, we organize a skill group around that very narrow achievement band. So, we are talking about four or five groups in the classroom at once, with four or five kids, for four or five days according to four or five criteria--a five by five by five by five relationship.

The teacher who groups for a five by five by five by five relationship becomes a guide as she floats among these groups, loving and trusting, reinforcing, asking questions, listening, observing, cudgeling, doing all the kinds of things that a compassionate, humanized educational program should provide. She is not an authoritarian, not a teller, not a giver of answers, but a person on the floor as you saw in the classroom demonstration this morning, equal to kids, working compassionately with them, arms around them, who has lots of questions, does lots of listening, and observing. This is the style of the teacher who groups kids.

The kids are given ever increasing freedoms as they are able to handle them, but the lines are still there. The lines are heavy; they are consistent; but the kids are moving in an ever increasing freedom direction as they, themselves, as individuals, are able to do so.

So we come to the last step in the learning process: assessment. Now you are trying to find out whether the process worked. How do you do that? Exactly the same as you did in the diagnostic step, because assessment is just the reverse of the diagnostic step. All you do is turn the objective around and put it in the form of a question. The objective may state that by the end of the prescribed period Johnny will know the multiplication tables 1-10. The statement of assessment is, Does Johnny know the multiplication tables 1-10?

All you do is take the statement of behavior given in the objective statement and turn it into a question. The tools for assessment are exactly the same: observation, listening, oral questioning, manipulative testing, written testing, teaching. This completes the learning cycle: diagnosis, prescription, contract, treatment, assessment. Once the assessment is done, there is a new diagnosis which leads to a new prescription, a new commitment, a new treatment, a new assessment. Around and around you go. An endless cycle. Individualized learning.

OPEN CLASSROOM DEMONSTRATION

An open classroom demonstration was conducted Wednesday morning in the gymnasium of Willamette University. A teaching team, made up of David Kahl, Dr. David Mathias, and Marie Conlon, worked with approximately one-hundred children, kindergarten through college freshman.



The younger children had been instructed to bring all kinds of books and workbooks, art materials, writing paper, pens and pencils--anything they wanted to use in a learning situation.

The children were immediately divided by age into two groups: those younger than eleven, and those eleven and older. Each of the older children then selected a younger child or two, in some instances three or four, and led them to the center of the gym floor. Here everyone sat down with his own little group, the older children instructing the younger.



The teaching team moved among the groups. Soon Dr. Mathias had the mike on a small group where the instruction was in mathematics; another group was talking about heredity; many children were reading aloud to their student teachers. Mrs. Conlon explained attribute blocks, a mirror box, and tangrams to some older boys who

tried them out. One boy began instructing preschool children using the attribute blocks. He discovered that he liked to work with young children. Many older children said they enjoyed being "teachers."

Mr. Kahl had two groups, mostly boys. He helped them make a plan of action, decide on ways of accomplishing their objectives, and carry out the plan. They worked steadily, engrossed in their dinosaur and baseball projects, and had almost completed their plan of action by the close of the session. Many groups had instruction in reading, spelling, mathematics, science and social studies.

Mrs. Conlon gave a quick diagnostic reading placement test (San Diego Quick Assessment Test) to a fifth-grade boy. Dr. Mathias used the overhead projector

to give a mathematics placement test. These tests illustrated techniques which a teacher could use for placing a student correctly in an individualized learning program or in a traditional classroom.

A warm, intimate relationship was maintained with the children, especially with the younger ones who were interested in the audio-visual equipment set up for the demonstration. The team encouraged their interest by hands-on experiences.

It was evident that the older children needed some preparation on how to operate in such a situation, although they did very well. Dr. Mathias said it was his experience that the older child needed one hour of instruction for every ten hours spent with a younger child in a pupil-pupil learning situation. Also, a real classroom offered more motivational opportunities to learning than did the gym. Although the behavior of the children was very good, he stressed that it is necessary to set up some controls so the child in an open classroom does not bother anyone else and that an open classroom is not an uncontrolled situation.

The team was able to present many teaming techniques, how to observe and manage children, diagnostic techniques, and pupil-pupil teams in an open classroom environment.

The demonstration offered many new approaches to individualized learning. The teacher observers were interested. Some were unimpressed, some were skeptical, some were enthusiastic. All were challenged.



The pictures and dialogue which follow, present parts of the demonstration as recorded on camera and audio tape. The demonstration was also video taped. (The tape is available on request from the OSSP office.)

Dr. Mathias. I'm a teacher in Denver. All of the people you see here are teachers and principals from all over your state.

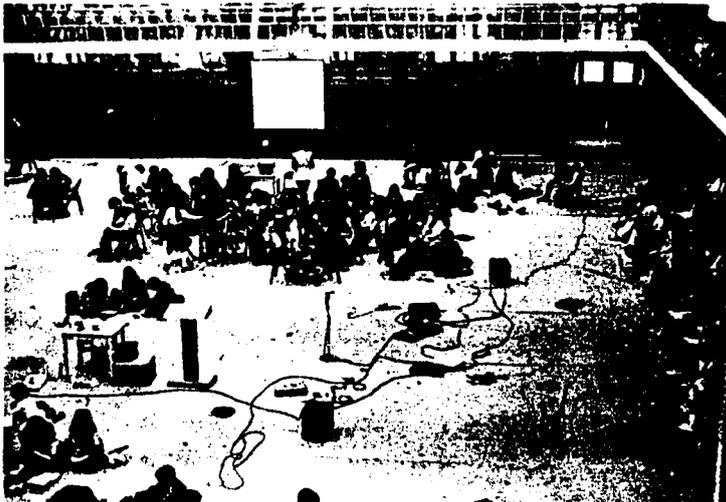
We are here to work this whole week to become better teachers, so we can work with you kids better in your classrooms. We are going to do some things with you, and you are going to be our helpers.



We think that everyone of you can be a teacher of something for somebody. Sure, you can be good teachers.

We want to show that older children can teach younger children many things as well or maybe even better than some teachers. So, we want to form you into groups.

Would everyone age eleven or older go right over here. All littler guys right over here.



Will you older kids go over and introduce yourselves to one or two of the little kids, then take them and be their teacher for awhile?

Go anywhere in the gym, sit down on the floor, take out the stuff your buddies want to work on, and help them with it.

Notice how kids are helping one another. There are all kinds of things going on, art over here, reading over here, math, social studies, spelling.



Now let's listen. (Doctor Mathias to student teacher,) "Let's try and find out where she is. Try letting her pick a spot where she can work."

He (a younger pupil) was telling her (student teacher) another way to try to teach Lisa the same concept. Here are four kids, and he says, "An alternative way to teaching this child. . ." It is working.



Dr. Mathias. If you have never tried multi-age grouping of children and pupil-pupil teams or triads, I hope you try it. You'll see that it works; kids enjoy it.

There is research that indicates that kids learn more from one another than they do from you or me. Kind of makes us wonder what the teacher is all about, at times.



Marie Conlon. I've been teaching these boys how to man manipulative interest centers. They have been learning how to use attribute blocks which basically is a math game but can be used from kindergarten through high school.

These boys are going to man a station for geo-rule activities, a station for mirror box, and one for tangrams. Eventually they are going to teach students how to use these centers.

David Kahl. We started projects with the group that I have down in this corner around the children's interests. We first developed plans of action, a plan of attack. I have a group working on dinosaurs, actually writing stories about them. Another group is working on baseball; they are identifying the locations of each of the major league teams and indicating the populations of the states they are located in. There are two eighth-grade boys working with a second grader on the same kind of activity.

We are a little handicapped today because we don't have any research books here, so we're using some ideas from memory. In addition to the group writing about dinosaurs, there is a group drawing a map of the United States and indicating where all the dinosaurs are located.

When we are through, the groups are going to share with each other just as they would in my regular classroom. I use this same kind of approach where older children are helping younger children. Remember; a plan of action is a teacher-child plan of action developed around the child's interest.



Doctor Mathias. . . somewhere between 60 and 80 percent of the kids on a grade level where textbook materials are used are mal-assigned. Let's see where Debbie is and where we could start her.

"Debbie, let's see how you do in math, darlin'. Can you get up here a little bit? Can you do this?" (Writes on acetate, then Debbie writes.)

"How did you make a 9? Can you make it this way?"

"Yes."

"Look what I'm doing sweetheart, look here."

"I can't see; your hand is in the way."

"She can't see, my hand is in the way. What a beautifully honest child."

It isn't too hard to find out where a kid is, and think of Steve and the way he worked, as opposed to the way little Debbie worked. Think of the age difference, think of the textbooks, think of the materials. Think of a process like this for diagnosing where kids are in math. It is awfully easy to do, and it is far more effective and time saving than to start with a big diagnostic test. Simply play numbers with children, one at a time. Then after you zero in on something work from there.

PART 2

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INDIVIDUALIZED LEARNING IN THE MANZANITA ELEMENTARY SCHOOL

Three years ago, educators in the Manzanita Elementary School, Josephine County, Grants Pass, Oregon, recognized and became concerned about a declining achievement of children in the basic skills--reading, mathematics, and written communications. It became their goal to reverse this downward trend. Over the state, and nationally, their efforts have become known as "The Manzanita Project." It was supported in part by a Title III ESEA grant.

The Manzanita Project has four basic elements as follows:

- Open-Area Building Concept - The design of the classroom buildings is hexagonal with two open triads. Each triad houses a single grade of 65 to 100 students. These open areas allow for a flexibility of student movement to various activity centers for individual, small group, and large group instruction.
- Differentiated Staff - The staff is grouped in teams of four members each. The instructional leader is on an eleven-month, terminating, one-year contract which holds her accountable for achieving the specific objectives outlined in her job description. The staff teacher is employed on a standard contract. She has a job description, but it differs from that of the instructional leader in time, function, and degree of responsibility. An instructional aide is responsible for working with students and for routine supervisory activities. A general aide also works with children and does much clerical work. Summer workshops and in-service activities have been conducted throughout the project.
- Individualized Curriculum - Individualized curriculums in reading, mathematics, and the mechanics of writing are being developed. These provide materials that enable students to learn the specific skills that they need while utilizing their unique learning styles and working paces.
- Systematic Instructional Sequences - To attain systematic sequences, hierarchies of skills, for reading, mathematics, and mechanics of writing were, and are being, developed. A specific instructional objective was then written for each skill, and pretests and post-tests were developed for each objective. The instructional procedure is as follows: each child is tested to determine if he has a specific skill. If he passes the pretest, he progresses to the next skill. If he fails, he is cycled into a learning package called a "Program Management Unit" (PMU) developed for each skill. Each PMU offers at least two alternate routes that will enable the child to learn a specific skill. When he completes a PMU, he takes a post-test. If he passes, he continues on and takes the next pretest. If he fails, he is recycled into other learning options until he can pass the post-test.

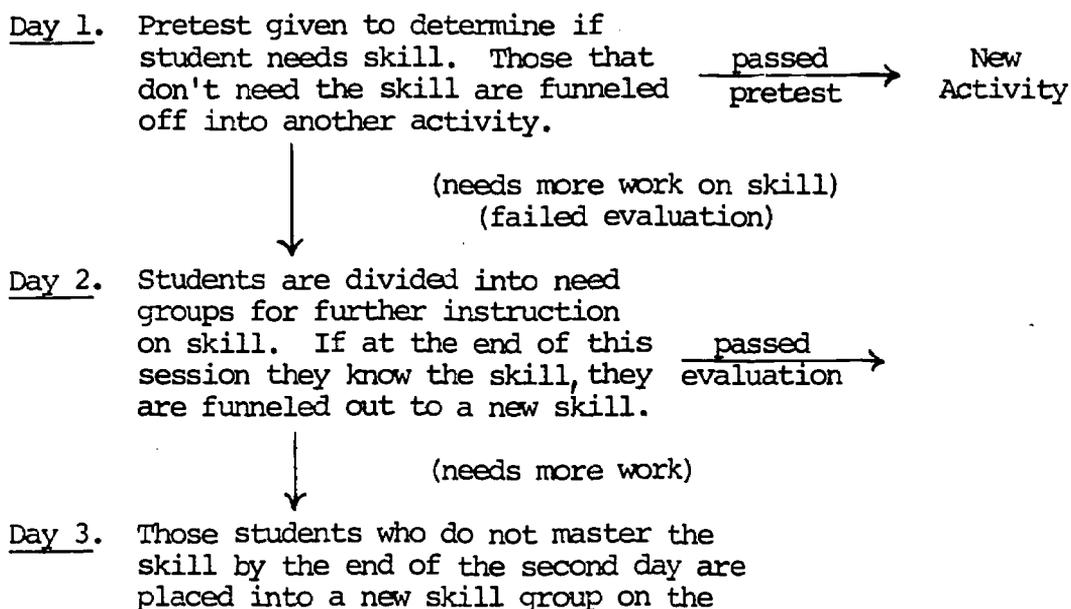
Other features of the Manzanita Project are--

- Students are grouped only according to need. There is no ability grouping for instruction.

- Desirable procedures, pretesting, post-testing, diagnosing, prescribing, and record keeping, are assured.
- The program does not depend upon utilization of basal texts.
- The program, now that it is in operation, costs no more to operate than the previous conventional instructional program at Manzanita.

The PMU's are used for teaching specific skills: word attack skills, mathematics skills, specific language mechanics skills. To teach reading comprehension, an eclectic reading program was developed based on the tenet that there is no one way to teach all students reading. The emphasis therefore is on prevention rather than remediation. The period is usually divided into teacher-pupil planning time, 5 minutes; silent reading time, 20-30 minutes; skill time, 15-20 minutes; and special time, 15 minutes. * Each part of the program is keyed to meet each student's individual needs.

Skill time is used by the educational staff to introduce, extend, and work for a mastery of a skill that the student needs. A funnel approach is used. A funnel covers one skill and establishes a group based on needs, not ability. A student stays in a funnel for no more than four days. As he attains the skill, he is phased out of the need group. The design of the funnel approach follows.



(continued on page 39)

* A detailed description of each part of the schedule and the rationale behind it is given in the report of the 1972 OSSP summer institute entitled *Steps Toward Greater Individualizing for Small Schools*, pp. 76-77. Available from principals of small schools and the OSSP office, 942 Lancaster Drive N.E., Salem, Oregon 97310

third day. During the third day, they are given more help on the skill.



(failed evaluation)

Day 4. All students who do not have the skills at the end of three days are referred to the teacher for a conference and further one-to-one work.

A recording of the children's progression through the funnel procedure is made on a class roll in the following manner:

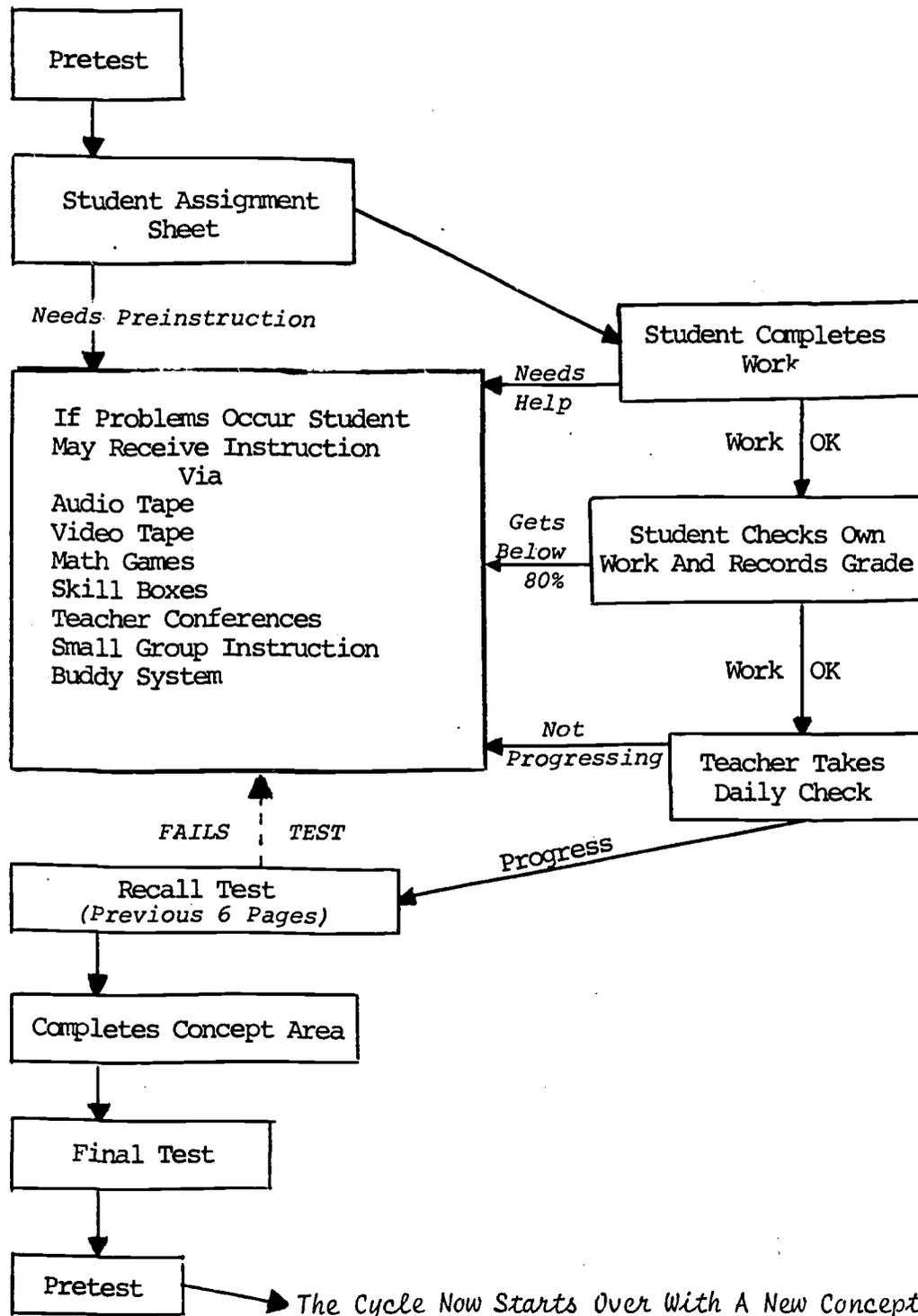
FUNNEL APPROACH

NAME	SCORE DAY 1	SCORE DAY 2	SCORE DAY 3	CONF.	NAME	SCORE DAY 1	SCORE DAY 2	SCORE DAY 3	CONF.
Anderson, Kevin	100	_____	_____	_____	Miller, Douglas	100	_____	_____	_____
Anderson, Michael	75	90	~~~~~	_____	Million, Coleen	95	_____	_____	_____
Avvere, Ann	80	95	~~~~~	_____	Million, Kim	65	75	_____	_____
Baker, Ronald	90	_____	_____	_____	Mills, Robert	70	85	_____	_____
Batton, Christy	0	50	60	Needs Help	Moore, Carol	80	90	~~~~~	_____
Baty, Michelle	25	70	100	OK	Mosch, Judy	90	_____	_____	_____
Beall, Charles	75	90	~~~~~	_____	Nieman, Shelene	100	_____	_____	_____
Beebe, Kenneth	80	85	100	OK	Noyes, Gwen	60	70	_____	_____
Biddle, Teena	95	_____	_____	_____	O'Bryant, Pam	60	85	_____	_____
Blenkle, Mary	92	_____	_____	_____	Oden, Rusty	90	_____	_____	_____
Bowman, Wayne	70	80	90	OK	Owen, Randy	70	90	~~~~~	_____
Brazille, Daniel	80	95	~~~~~	_____	Poole, Susan	100	_____	_____	_____
Brock, Kirk	90	_____	_____	_____	Putnam, Victor	50	_____	_____	_____
Brown, Carolyn	95	_____	_____	_____	Reynolds, Ryan	100	_____	_____	_____
Buckley, Kirk	55	70	80	Needs Help	Rice, Tammie Lea	50	70	_____	_____
Burkett, James	70	85	90	OK	Rourke, Deborah	60	75	_____	_____
Campbell, Terry	80	90	~~~~~	_____	Saramento, Mike	0	50	_____	_____
Carlile, Diana	85	95	~~~~~	_____	Saramento, Wilma	20	80	_____	_____
Coleman, Lonnie	95	_____	_____	_____	Scott, Neal	90	_____	_____	_____
Come, Jerry	100	_____	_____	_____	Shaff, Wade	70	85	_____	_____
Dunn, Sean	75	100	~~~~~	_____	Shepard, Jackie	90	_____	_____	_____
Fall, Sherry	90	_____	_____	_____	Shimeall, Mike	80	95	~~~~~	_____
Fletcher, Debra	80	100	~~~~~	_____	Shipman, Braide	60	90	~~~~~	_____
Forte, Michael	85	90	~~~~~	_____	Smith, Laruel	100	_____	_____	_____
Harden, Timothy	80	85	100	OK	Stott, Nora	20	80	_____	_____

KEY: _____ child passed pretest on Day 1.
 ~~~~~ child passed post-test on Day 2.  
 OK, child after 3 days had attained goal.  
 Needs Help, child redirected into other learning activity.

An interim step for mathematics, not however being used at Manzanita, which can be used by schools needing time to develop a more complete mathematics program is shown below and on the following pages.

CONTINUOUS PROGRESS IN MATH



### Explanation of Boxes on Preceding Chart

Pretest - The pretest determines where the child will be placed in the basal series that the teacher is using. More specifically, it is also used to prepare assignments to meet the needs of the child.

Student Assignment Sheet - The teacher should fill in the Student Assignment Sheet from the information results of the pretest. Assign only those problems that meet the child's need. Normally all problems need not be assigned. See page 42 for sample sheet.

Student Completes Work - Student can usually complete work by studying examples in books and following the progression of easy to hard used by most books. Teachers should be aware of difficult areas and channel to some means of teacher instruction.

Student Checks Own Work and Records Grade - The teacher must put her trust in the student. If he does cheat, it will show up on the recall test. Each page must be corrected after it is finished.

Teacher Takes Daily Check - Each day the teacher will check student progress by checking the square up to and including the last page the student has completed. When the recall test has been completed, the score is recorded. This daily check enables the teacher to be cognizant of what the child is doing and how fast he is progressing. This is one of the most important records that is kept. A sample record is shown on page 43.

Recall Test - The recall test is a check to determine if the child understands the concepts that had been presented in the previous six pages. If the child has made little mistakes, he may correct wrong problems for partial credit. If the concept is not understood, the student will be assigned more work and instruction until the concept is mastered. See sample test on page 44.

Completes Concept Area - If the child passes the recall test, he should continue with the assignments on the assignment sheet until he reaches the next recall test.

Final Test - The final test tests all of the concepts presented in that concept area, unit, or chapter. This test is the teacher's final indicator of mastery of content by the student.

**NOTE:** A notebook check depends on the child. When the program begins, the notebook check should be more frequent. Later, only once a week will be sufficient for most students. Some students will, however, need a daily assignment and a daily notebook check.

## Student Assignment Sheet

The Student Assignment Sheet enables the teacher to individualize the content that the student encounters. The teacher fills in the problem that the student is to do. If the child does not need the concept, the teacher writes, "skip." Note that the assignment sheet tells the student what media he may go to for extra help.

### SAMPLE STUDENT ASSIGNMENT SHEET

NAME \_\_\_\_\_

Unit 9

#### Assignments

| Date | Page Assigned | Problems        | Student Score | Teacher Score | Media - Teacher circles media the student must do |
|------|---------------|-----------------|---------------|---------------|---------------------------------------------------|
|      | 117           | a,c,d           | 90            |               | Film Strip - #98 - #99                            |
|      | 118           | #12 - 24        | 82/95         |               |                                                   |
|      | 119           | all             | 100           |               | Game - Lotto - come out, even                     |
|      | RT2           |                 |               | 96            |                                                   |
|      | 120           | all             | 92            |               | Film Strip 3, 6, 7                                |
|      | 121           | X, Y, Z         | 65/92         |               |                                                   |
|      | 122           | even            | 98            |               | Audio tape - 5                                    |
|      | 123           | Skip            |               |               | Note: Programmed "Sullivan #2"                    |
|      | 124           | #10, 15         | 93            |               | Games - Numero - #6 - 8                           |
|      | 125           |                 | 85/100        |               |                                                   |
|      | RT3           |                 |               | 100           |                                                   |
|      | Real          | Life Math Sheet |               | 95            |                                                   |
|      | 126           | Skip            |               |               | Film Strip - 101                                  |
|      | 127           | Skip            |               |               |                                                   |
|      | 128           | #13 - 17        | Hand in       | 100%          | Audio Tape - 4                                    |
|      | 129           | a-b-e-f-g-e-o   |               |               | Games - None                                      |
|      | 130           | all             |               |               | Flash Tape - #165                                 |
|      | RT4           |                 | 75/100        |               |                                                   |

Daily Check Sheet

Each day at the start of the period the teacher calls roll and marks with a hash mark (/) the page the student is on. If the student is on the page two (2) days in a row, she has an X and should conference with the student. This also helps the teacher to see if she has any students on the same page that she can group together.

SAMPLE DAILY CHECK SHEET  
(8 1/2" x 11" sheet with chart placed lengthwise of sheet)

CHAPTER 5

Page Number \_\_\_\_\_

| NAME           |     |     |     |       |     |     |     |     |     |     |     |       |     |     |     | RT  |     |     |       |     |     |     |   |   |     |    |     |
|----------------|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-------|-----|-----|-----|---|---|-----|----|-----|
|                | 117 | 118 | 119 | RT 13 | RLM | 120 | 121 | 122 | 123 | 124 | 125 | RT 14 | RLM | 126 | 127 | 128 | 129 | 130 | RT 15 | RLM | 131 | 132 |   |   |     |    |     |
| Adams, Tim     | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 96  |    |     |
| Bahr, Mike     | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 93  |    |     |
| Belnap, Todd   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 85  |    |     |
| Clark, Jack    | /   | /   | x   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 92  |    |     |
| Dall, Jane     | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / |     |    |     |
| David, Judy    | /   | x   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / |     |    |     |
| Evans, Lindon  | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 100 | 98 | 100 |
| Fackrel, Joe   | /   | /   | /   | /     | /   | /   | /   | /   | /   | x   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 90  |    | 100 |
| Fallan, Helen  | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 85  |    |     |
| Going, Joe     | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | x   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 92  |    |     |
| Hall, Ron      | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 100 |    |     |
| Hobbs, Candy   | /   | /   | /   | /     | /   | /   | x   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 100 |    |     |
| Irving, Luke   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 96  |    |     |
| Jackson, Tina  | /   | /   | /   | x     | x   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 96  |    |     |
| Kelly, Mike    | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 75  |    |     |
| Lamb, Zeke     | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / |     |    |     |
| Malzohn, Kathy | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 80  |    |     |
| Martin, Jim    | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 86  |    |     |
| Nelson, Keny   | /   | /   | /   | /     | /   | x   | x   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / | 86  |    |     |
| Overton, Oscar | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | /   | /   | /   | /     | /   | /   | /   | / | / |     |    |     |

### Recall Test

The recall test is designed to enable the teacher to evaluate the extent of the student's recall on specific items he has studied. The test is given about every six pages and the teacher or aide corrects the paper. If the student meets the required level of achievement, he goes on to the next concept. When the student fails to meet the required level of achievement, he is recycled to new learning experiences to help him learn the concept.

#### SAMPLE RECALL TEST

---

RECALL TEST 3                      BOOK 6                      CHAPTER 7                      (167-169)

DATE \_\_\_\_\_ SCORE \_\_\_\_\_ NAME \_\_\_\_\_

---

167 1. In each exercise, when you find the missing factor in equation A, you will have found the quotient in equation B. Write equation B with the correct quotient.

- |                             |                             |                              |
|-----------------------------|-----------------------------|------------------------------|
| 1. (A) $n \times 3/8 = 1$   | 2. (A) $n \times 7/5 = 1$   | 3. (A) $n \times 10 = 1$     |
| (B) $1 \div 3/8 = n$        | (B) $1 \div 7/5 = n$        | (B) $1 \div 10 = n$          |
| 4. (A) $n \times 1/3 = 1/6$ | 5. (A) $n \times 3/4 = 9/4$ | 6. (A) $n \times 1/9 = 5/18$ |
| (B) $1/6 \div 1/3 = n$      | (B) $9/4 \div 3/4 = n$      | (B) $5/18 \div 1/9 = n$      |
| 7. (A) $n \times 1 = 4/13$  |                             |                              |
| (B) $4/13 \div 1 = n$       |                             |                              |

168 2. Each quotient given is incorrect. The correct quotient is how many times as large as the quotient given?

- |                            |                             |                          |
|----------------------------|-----------------------------|--------------------------|
| (A) $3 \frac{2}{5} = 5/2$  | (B) $5 \div 1/4 = 4$        | (C) $8/4 \div 2/3 = 3/2$ |
| (D) $5/7 \div 3/4 = 4/3$   | (E) $7 \div 3/2 = 2/3$      | (F) $10 \div 5/6 = 6/5$  |
| (G) $5/4 \div 1/3 = 3$     | (H) $5/10 \div 3/10 = 10/3$ | (I) $9 \div 7/4 = 4/7$   |
| (J) $100 \div 10/3 = 3/10$ | (K) $5/8 \div 3/7 = 7/3$    | (L) $3/7 \div 5/4 = 4/5$ |

(Continue on in this manner on 8 1/2 x 11 sheet)

## TEN WAYS TO INDIVIDUALIZE

*Dr. Wally Armistead, Cherry Creek Schools, Englewood, Colorado*

MOST SCHOOLS ARE VERY HONEST ABOUT SAYING, "SOME KIDS WE NEVER GET TO. WE CAN'T GET TO THEM. PSYCHOLOGICALLY, THEY ARE SO STRONG AGAINST WHAT WE ARE AFTER THAT ALL WE CAN DO IS TRY." SO DO NOT THINK YOU ARE GOING TO GET THE WHOLE JOB DONE BY INDIVIDUALIZING, JUST BY CHANGING RATE. YOU ARE STILL GOING TO HAVE TO DO ALL THE MICKEY MOUSE THINGS THAT HAVE TO BE DONE WITH SOME KIDS.

Let me talk about ten things you can do in terms of starting individualizing. How fast you can do them or when you can do them is up to you. Most of the teachers I work with put them into effect within a week. I will also identify the ones you cannot put into effect.

The easiest thing to do is to change the rate at which you allow students to take your course. That is, how fast can they go through your material? I cannot emphasize strongly enough that you have to sit down with your fellow teachers, with your principal, and maybe with the members of your parent communities. You have to get teachers together and talk about whether they can agree as a faculty as to how they will teach and handle kids, and whether they will do it cooperatively.

When you start talking about allowing students to move ahead, you must be careful that they have a purpose in so moving. This suggests that you know when your class begins and when it ends. Most English teachers, when you ask them when their course is over, say, "June," because they have something they are going to give a kid. As soon as the kid thinks he has English conquered, they are going to give him more book reports. When the kid says that he thought he was done, they say, "It is May, so you've got time for four more." So the kid never knows when he is through.

When you talk about rate changing, there is a good chance that you are going to individualize rate. It is only honest and ethical to say, "Here's where you are going. That is why I'll let you go from here to there as fast as you want to go, but when you get here, you have then done it."

The first thing the kid asks is, What happens next?

If you smile and say, "Oh, you get to stay right here with me until June," not many kids will take advantage of that. The big question is, What are you going to do with the student when he has accomplished what you say he must?

As soon as you admit that you are going to individualize, you have to admit that kids are different, that some kids will, in fact, finish the assignment and ask to be relieved of your wonderful companionship. Other kids will finish and love you so much that they will be there twice as often as you want them to be. Every teacher has a group of students that they relate with well. The same teacher will have another group of kids that just hate him.

This happens in every school. So, when you give kids options, the kids that you end up with are the kids who like you and come back; they reinforce you no end.

In a small school, you might teach a required course or two and then some electives. The able kids will complete your required course and come back to sit in your elective courses, because they like you and the way you handle the material. On the other hand, you do not hear many teachers saying, "I have trouble with that whole bunch over there." When you give them an option to do something, a lot of them are highly motivated to get away from you. This is normal, typical, and the way it is with all of us.

Rate is the easiest thing to change next Monday morning, but do not ignore the problem of what to do with the kids who finish. That is problem one. Problem two is what about the kids who, when you give them the choice, do not move. What they want to know is, if given a choice, Can I choose to do nothing? My secondary experience has been that the teacher keeps on teaching the same standard program that she has always taught, and she brings all the kids along. The only option is that the kid goes faster. *You do not give a kid an option to do nothing. Some schools say they do, but they do not. In about two weeks, the teachers get together and come up with a plan to motivate the kid who is doing nothing. They admit they do not have a lot of the answers.*

Most schools are very honest about saying, "Some kids we never get to. We can't get to them. Psychologically, they are so strong against what we are after that all we can do is try." So do not think you are going to get the whole job done by individualizing, just by changing rate. You are still going to have to do all the mickey mouse things that have to be done with some kids. But, when you talk about what you can do right away, it is just an attitude on your part to say, "Here's my program. You're free to go as fast as you want."

At first you will think that you are going to get killed--they are going to jump on the band wagon and really zip. At first, they give you that impression. For about a week or two, it looks like half the kids in your class are going to buzz through the material. Then comes the school game, the dance, or the play. Pretty soon, the kids who are taking advantage of going as fast as they can begin to decrease. You will end up with about 5 to 15 percent of your kids who will actually be ahead in the course. You have to be a strong person. You will still teach your normal class, you will still keep the kids moving, and you do not let anybody fall behind.

Before you can say, "Here's my program, you're free to go as fast as you can," you must know when the course is over. You must have the course well enough organized so the kid knows what he has to do. and you have some place, or have worked out some arrangement, in your school for a student who finishes early.

The typical arrangement is to say, "You've got your grade, you've got your credit. I'd like you to stay here and enrich yourself in this subject matter." That is the first option you always offer a kid. You do not say that is what

he has to do. The second option is to send the kid to another teacher so he can do fun things for an hour under that teacher's supervision. A third option is to send him someplace off campus or away from the school to do fun things under somebody else's supervision, hopefully. The fourth option is to have him just leave. Just go; he is gone. He is not under anyone's supervision.

Probably the option that most kids take advantage of is to go to another subject matter field and work with that teacher on a special project. That means that you and the other teacher have worked out a plan that when the kid leaves English and goes to social studies that he is not going to have to start on page one of the social studies textbook. Rather, he is going to get involved with something that is pretty good, perhaps controversial. The way you get kids into your department is to give them stuff that is normally not open to other students. The racial problem, poverty problem, the Chicano problem, and the like are big important issues to young people. The kid will leave your course to study parent relationships, psychology, sociology courses that you cannot offer.

The third option, that he goes off campus and works with somebody, under supervision, in the community possesses great learning opportunities for youngsters. Most college prep kids do not know how to get a job and how to work. They get jobs and they work, but they do not know how. So kids who are college prep and finish early may work under supervision of the local bank, newspaper, attorney, or doctor. These people can give them a little work experience.

*The fourth option must be checked with your lawyer. In it you are saying, "OK, kid, you've finished English; it is February, you can do whatever you want to do this period for the rest of the semester." That is a waste. You know that is not really our job in American education. Our job is to give kids as much as we can that is relevant. To say, "You're free to go," is not appropriate. This is done during the first period, the lunch period, and last period in a lot of schools in this country, because it is convenient for the school to do it that way.*

A better idea is to have them do something meaningful with junior or seniors, a job or chores. It might just be baby-sitting. There are a lot of elementary schools that need high school kids to work with them. So, if the kid has time, offer the option of getting into an elementary school to help teachers, to work with young people, to tutor, to be a general assistant at the nearby elementary school. Kids really pick up on this one; they really enjoy it.

Let's talk about teaching style. What you try to do is match the student to the learning style. This suggests that you know the learning style which means that you have already diagnosed your kids. Simply giving the kids a chance to sit where they wish is a diagnostic technique which really works.

When we talk about learning style, I say to match your style to the learners. That means that in a fifty-five-minute period, or a forty-minute period, you

are going to keep in mind the attention span of all the kids. You are probably going to say, "Here are the activities for this bunch. Here are some activities for that bunch."

You start teaching using different kinds of teaching styles. What are they? Let's talk about a couple. You can use a teacher talking to the group--the teacher centered, teacher directed kind of lecture activity. You can use the recitation method where you ask the question, the kid responds. Or you can have the kid ask the question and have him respond. You can split the class into quads and say, "Here is the way you're going to review today. Here are the things you ought to review." You can use the inquiry method. You can probably do games and simulation. In some courses you do not do any of these, but they are teaching styles.

Generally, you ought to switch gears at least twice. You have to lecture, you have to talk, and you have to be teacher centered, teacher directive, but these probably should not last for more than twenty-five minutes. The rest of the period you ought to have a different kind of teaching style. *Just do not use all your options next Monday morning. The kids will say, "Fine go ahead and change. What's next?" If you do, the kids will vote for you to be the kind of teacher you have always been.*

The kids will not reinforce individualized education at first. The kids who get hurt the most are the real bright kids. All of a sudden, kids who are not the real bright kids find themselves getting a lot of success. The kids who need your time get it; the good kid does not get it. That is not very reinforcing so you are going to see some adjustment.

All that I am saying about teaching styles is that there are all sorts of things you can use: group discussion, learning packages, problem solving, independent study, and reading. You can even kick kids out of class and let them go out to their real lives. The real issue is that the teaching style fits what is real to the kids; that is, it is going to be different.

Now, we come to grouping. How do you group? The basic group is a group of one. That is very ineffective grouping. It keeps the kid in the class of one person working on one thing. Such grouping is very poor in terms of efficiency. One of the problems that I have with my compatriots is trying to convince them that a one-to-one situation is the most wasteful one in education. Secondary kids do not need one-to-one unless they are having a problem. It takes too much time, one teacher and one kid. They learn quite well in small groups or larger groups of 35 or 105.

Your job is to find out how to group. Grouping practices are very tough for secondary teachers, because they are not trained to take a group of thirty kids and split them into different kinds of groups. Why would you want to do that anyway? Because there are various things that need to be done.

Let us consider some criteria for grouping. When you talk about grouping, it is just a matter of saying why you group and how you group. The basic figure that I always use if I am working with less than thirty-six kids

and more than twelve is quads: four people, five people, somewhere in that area. I try to mix them up. I say, "You four right here have been sitting together for three weeks now so you know each other rather well." I would not use them as a quad. I would take that guy and that guy and say, "You two work over there; you seem to be on the same project. You two go over there and work with them." This maximizes the activities that go on in the class, depending on the kind of class. *When you group, what you are after is some kind of a situation where the learning can be maximized by putting kids together who need the same kind of thing. Shop, home economics, mathematics, and physical education teachers have been doing this routinely for years.*

Next is content. The toughest thing to change is course content. This is the toughest to change, because you are already doing what has been required for you to do. What I am saying, in terms of how you can individualize, is, "How many options can you offer kids?" Your first question to the kids is, "What do you think we could do to make the content of this class more interesting to you? They will have fun playing games with you on this one."

When content comes up, the question is, What can you change. Also, why would you decide next year to handle something you are not handling this year? So, it is not very easy to change content, but you are going to have to do it ultimately by using packets, contracts, special projects, a new teaching style. Changing content is tough, you can believe that. With individualized programs, students get different materials, and they are all graded or ungraded. One does not understand why he got different material, especially when he thinks another student's is easier. He says, "You know, I can do what you have given him to do. Why can't I do that?"

"Because you need this."

"But I can't do this."

"That is why you need it." We hope you offer that kind of challenge.

Probably the hardest things to change right away are your objectives. We have not been talking much about changing objectives because we have had our objectives either given to us or we have ignored changing them.

When it comes to objectives, the question is whether the objectives for your course are the same for all kids. In the elementary grades, the answer is definitely no. In the affective domain, in the area of attitudes, values, things like this, do you, are you willing to make some changes in your objectives? Would you change some things, would you relieve some kids of homework, would you give kids passing grades if you thought it would change their attitudes towards your subject?

Your objectives fall into perspective. What are you after? If you are after subject matter competency, then you cannot change your objectives, because you are after subject matter competency. If you are after students growing and developing as human beings, then you are willing to make some changes in your objectives. I think you are missing some real bets with

the whole area of affective domain because your objective is that the kid learn to follow orders--you are going to do things my way. That is a legitimate objective on the secondary level. You have to learn how to take orders in life, you have to be able to follow directions, and you have to realize who the boss is. If you want to keep that kind of atmosphere in the secondary program, you do not deviate from objectives; they have to stay the same, they are yours, not the kids'. On the other hand, the kid says, "I'd really like to work on one phase of what you teach, but I cannot handle all of the rest of the mickey mouse you're going to give me."

At that point, most teachers say, "That's too bad. You can take mickey mouse with the good stuff."

In some secondary schools, we are finding some teachers saying, "OK, just come in for this. We'll forget this."

How about changing materials? Actually, you probably do not have near the materials you need to individualize. Unless some of you are already deeply involved in individualized programs, you probably do not have the materials that you need. So, how do you get them? The first system I might mention is the scavenger hunt. A scavenger hunt has to be done very carefully so the kids understand that they represent the school. It has to be teacher controlled. It is a good technique, but probably a better technique is to go directly to your state university by letter or visit. Explain that you would like to set up a cooperative program with them. Ask if you could provide them with some students if they could provide some equipment and experiences. Ask them where you could cooperate. Let them tell you what they have available for high school kids to work with. You do not realize how much power, as an institution, you have by just asking. Just ask for what you can do. When it comes to materials, ask for what you need for what you want to do. I say, "The sky is the limit."

How do you change the environment? Who runs the school? Who makes the final arrangements about the learning environment? In 80 percent of the schools of the country, it is the custodian, so you have an inflexible environment. The environment has to be flexible. You cannot make it flexible if the tables are bolted to the floor.

The issue with the environment is how quickly can you change it. If you have things bolted to the floor, I would suggest that the learning environment ought to expand your concept out of the classroom so that you can say something like this, "Open the door and the four of you go right out there and handle that activity where I can see you." There is nothing wrong with putting four kids out in the hall as long as they are doing something quietly. But, if you put four kids in a hall and you only see two of them, you have a problem.

The best way to split your classroom is to get about three or four areas. First, you need an area where you can use teacher centered, teacher directed activities. In the other part of the environment, you can quickly set up classroom chairs in quads in corners. You can set up about eight, maybe twelve quads in one-half, maybe one-third, of what is left. In another area,

put a carpet on the floor and get some comfortable furniture. That will really shake the kids up. They will ask, "What in the world are you going to do there?"

In a science classroom, they need everything bolted, and they have to have lab tables. You can still form a little science resource area with two straight back chairs and some bookcases. You can modify the science classroom, but you can't modify the shop or business classroom. However, most classrooms lend themselves to at least three areas: the teacher centered, teacher directed area; the area where students work with each other; and an informal area. It is very easy to do and you will not spend money doing it.

*You can change the environment in a lot of ways, but the big thing is to get off campus if you possibly can. Over and over again, kids tell us that off-campus things are much more relevant than those within the four walls of schools. Teachers who take a good look at this idea find the kids are right. If they can get the kids into a sociological experience, it is better than talking sociology. If they can get them into a place where they can get a religious experience, it is better than talking about religion. If they can find themselves in a hospital rather than talking about what goes on there, it makes a difference.*

Let us talk very quickly about other ways to individualize. I have already mentioned helpers, and again I will tell you, get some more helpers or you are going to be in trouble. I would suggest students, because they are readily available.

Change your class schedule. This you can do fairly easily by just making up your mind that you are going to have appropriate activities planned. See if you can change the schedule within your class by just changing the activities. Put the schedule on the bulletin board. The next step is to change the schedule in your department, or the department next to you, by saying, "Since all these kids go from here to here, let's you and I get together as two teachers and see what we can combine." The hardest thing to change is the whole school schedule because that is a security blanket for teachers. So begin by changing what goes on within your class. Change teacher attitudes, change kids attitudes. Pretty soon the schedule will get in the way, and teachers will begin to suggest changing it.

I will not say much about contracts other than that you can have all kinds of contracts, and they are the easiest things to set up. You can vary your contract in terms of length, difficulty, and grade. You have been doing this for thirty years in this state, as near as I can tell, but some teachers do not even know about it.

Consultants at the 1973 Summer Institute made it a success. They brought not only their expertise but boxes of materials illustrative of many new approaches to individualized learning.

Mrs. Dorothy Butler, right, is speaking to participants while illustrating her remarks with overlays. Dr. Wally Armistead, below, discusses one of several administrative topics as he uses an overhead projector. At far left, Dr. David Mathias and Marie Conlon go separate ways at the open classroom demonstration. Chuck Barber, lower right, pauses in a hallway door as Don Miller distributes free Manzanita material to eager, enthusiastic participants.





In addition to the seven IGSE consultants and Mr. Barker from Manzanita district, shown at work on these two pages, there were five other Oregon consultants: Robert Sauter, Paul McKillop, James Ozburn, Robert Freirich, and John Fessant.

David Kahl, to the left, presents the classroom learning center. Virginia Roth, below, discusses

how academic transcripts are handled at Ryan High School. Below, Dr. Edward Pino turns to a blackboard to explain an administrative technique when a district decides to individualize district-wide. At the left, Dr. Mathias speaks to the point shown by an overlay.



## DIAGNOSIS

*Dr. Wally Armistead, Cherry Creek Schools, Englewood, Colorado*

BE VERY CAREFUL THAT YOU DO NOT FALL PREY TO HAVING THE KIDS DIAGNOSE YOU, PERHAPS, A LITTLE MORE SOPHISTICALLY THAN YOU DIAGNOSE THEM. PRETTY SOON, THEY WILL KNOW ALL ABOUT YOU, AND YOU WILL KNOW VERY LITTLE ABOUT THEM. THEY ALL DO A PRETTY GOOD JOB OF DIAGNOSING BECAUSE THEY ASK YOU ANYTHING.

How do you check student relationship. What is the relationship of this kid to himself? We play a couple of games here. At Cherry Creek, we use a very simple little exercise. We ask the kids, "If you could be any kind of an animal, what kind of animal would you be? Describe the kind of animal you would like to be." A simple little game. What we are after with this little game is to discover how they look upon themselves.

We also give them a little survival exercise. We say, "The ship you are on blows up, starts to sink; you find yourself in a life boat with four other people; you grind ashore on a desert island. How are you going to get along? What are you going to do?" We split the kids up and let them go and think about that for awhile. They will come up with their self-images. When you find that self-image, you find what you are looking for--how the kid looks at himself.

Most adolescents consider themselves to be failures in all areas. They indicate all sorts of weaknesses in their total development. Here is where you can use your counselors effectively, if you have them.

There are a lot of measures for self-image. How do you measure self-image? You need to know how the kid looks at himself because, if a kid is hungry for success, you have a winner in the individualized program in which you can reinforce his self-image all the time. Other kids don't need you. They are successful or they are not successful, but they don't need the teacher. Anything you say, they will take with a grain of salt; they will probably not trust you for a long, long time. They will play games to see if you really think you are a good person. Self-image is important because, if you can identify the kids with poor self-images, you can spend time with them pumping up their self-images. You may find when you diagnose their self-images that you are, at the same time, diagnosing their abilities in the class you teach. The reason they don't think they are very successful is because they are not. If you can start showing them some success, their self-images come up. Give me a kid with a good self-image, and no teacher in secondary school is going to hurt him.

Kids who experiment are risk takers. Kids who are pretty bright, pretty sharp, and very competent will try anything. They are the risk takers. Some kids live that way, and most teachers are that way.

Some kids grow up and have such a lot of fun growing up that they cannot be hurt by a school situation. If the teacher says, "You better not do that because you are going to be in trouble," the kid knows that if he can just live

through tomorrow it is not going to be a big deal. You are not going to get to that kid by using threats, but if the kid has a poor self-image, you are the most important person in his life. *Every kid with a poor self-image goes to school hoping that the teachers he gets will give him some happiness.* When you blast this kid, you really get to him. Sometimes you can blast him because he needs it. You can grab him by the shoulders, give him three good shakes, and say, "Look, you're important to me, and I'm important to you, and I'm going to make you a successful kid." I'm talking about using psychological not physical measures.

You have to know what is going on, you have to know what is happening to your kids, you have to know their self-images. Self-image is very important. You can diagnose it by using oral techniques.

If you are going to really individualize and use kids in groups, if you are after getting young people to interact well with other young people, especially in some of the liberal arts and some other activities, you want to form teams. You can do a lot of things by setting up certain kinds of teams. We normally say, "Put a shy person with a pretty good verbal person." We found, after a couple of years of doing this, that the verbal, outward person overwhelms the shy kid, and the shy kid becomes more shy. So we now say, "Put a couple of shy people together, but make the performance objective, of such a nature that they have to do something."

Occasionally, we put a D level student, some character who really does not care, with a couple of shy kids. He thinks it is all for the birds, and he is willing to say so. He says, "I'm not going to do a damn thing."

The shy one says, "You are going to have to."

Then the other shy one says, "Oh, my."

Pretty soon they are working. The D kid is not going to do anything, but he has the other two working.

Watch out for the kid that the students identify as being one of two kinds of people. The kids identify the stars right off the bat. The stars are the ones who always have the answers, always know everything; they are the brains. Watch out if the kids identify a star because they do not want to work with him. He has the answers, but who would want to work with him? You have a problem with that kid. You have to work out that problem because he is a sharp kid, but socially he has a problem. This is a real challenge to a teacher.

At the other end of the scale is fat Freddy or skinny Minnie. I've watched a teacher form teams. The teacher asks the question, "OK, is there anybody who is not on a team?"

A hand goes up. The kids turn around and say, "Oh, God, didn't anybody take him?"

They really say it exactly that way. It is just another knife in the kid's

back. He has just learned to be a little more anti-social. So, you have to watch how the kids do because they will identify those they do not like. They identify feminine boys, masculine girls, girls who are too smart for their own good, conceited boys. Occasionally, you can walk up to a kid later and say, "How come no one chose Harry?"

He may say, "Well, I don't know Harry. He is a new kid." Or he may say, "Harry is in two of my classes and he is a fink."

"Well, you know, he does this and he does that, so I don't want him on my team."

You can do this informally. Watch out for the two extremes.

There will be Mr. Popular Joe. He can get anything done. He is probably a C level student, but he is a nice kid, he is good looking, and everybody likes to work with him. There will also be a lot of kids who never would think of saying, "Who wants to be on my team?" But they do say, "If you don't have a person on your team, could I do it?"

You want to find out who the extremes are because your job is twofold. You need to spend your time with the kid who needs help, and you need to pick out the one or two personalities in your class who can make fat Freddy feel good. You are looking for opposites to book with Freddy. Take a kid who is in the middle range, who does not have all the good things going for him, and say, "We need some help to get Fred involved. Can you help him out?" Say this with Fred right there. Fred understands what you are doing; he wants you to do it. He might be a little embarrassed, but in about two weeks, he will not be embarrassed because he has found friends.

You also have to work with Fred. You have to say, "Fred, one of the reasons the kids do not like you is because of the language that you use. You embarrass them because you are kind of a hard-nosed kid and you say and do dumb things. You keep pulling that knife." You have to spend a little time with the Freds.

We advise teachers, after they get their groups formed, to find out who their kids are by using a verbal sociogram. With it, you can find stars and the least desirable. Get hold of those kids first and work hard with them. Usually you say, "OK, these three teams, get going; these two teams, you do that stuff over there; team X, I want to work with you for just a minute." You sit down with team X. Fred is on team X. You say, "OK, this is going to be my best team. This will be my best team because a lot of people don't think, Fred, you can do all the things I think you can do, so I am going to make you." Start working with team X. The other kids begin to catch on and get everybody involved. The third or fourth time that you form teams, make sure that you start moving these kids around to different teams. *Do not let any team sit that has either a star or a problem kid. Move them around because they are going to get confidence as long as they perform.*

You will have to provide Fred with a lot of the answers. If he is a slow

kid, you have to say, "Spend a couple of minutes after class with me, Fred." Dismiss the class and say, "Tomorrow we are going to be doing this kind of thing. Now the rest of the class does not know that, but I know, if you work hard, you'll probably be able to come up with some answers. You can share with your own team if you want to."

Fred, if he is smart, catches on very quickly that you are trying to help him, and so the next day in the team he has two things to say. The first one is not very good, but the second one is not bad. The team picks it up, and the other kids begin to realize that Fred has something to say. Before you expect it, Fred will come to you and ask, "What are we going to do next Tuesday, because I had a lot of fun in the team today?"

"Well, next Tuesday when we are in teams, we are going to do these kinds of things, Fred."

"OK."

Then you can say, "If you go to the library, Miss Jones has the materials you will need."

So, he walks into class next Tuesday thinking he has been doing what every other kid has done, gathered material, and he is the only one who has it. So all the kids ask to borrow his material. You can get Fred moving if you play a few of these kinds of games, but first you have to know who Fred is.

With other students, use other kinds of things. We use open-ended sentences: The reason I like this school is-----, I think athletics are over-emphasized in this school because-----. Have them turn to their neighbors and orally fill in the blank. First, one fills in the blank, then the other. You do not care what the answer is. What you just found out, though, is that two people are going to talk to each other. They are going to find some interesting people in the class.

If you want to get some good interaction in a class the first week of school, give them some open-ended questions, neutral questions. Then have them stand up and summarize what they heard. Some kid will stand up and say, "Most kids in this class feel successful when they get straight As." This starts a conversation about grades.

We ask kids to rate themselves on scales that they make up. Most of their ratings can be thrown away because most of the kids are going to be somewhere in the middle of the scale. You are looking for the kids at the extremes of the scale. So, orally, you can play games. You can do all sorts of things to find out about their self-images.

If you are going to diagnose, you are going to give paper and pencil tests, or you are going to give some kind of examination. We give a final examination sometime within the first week of school to find out on a scale how much power the kid in that class has, how much he knows already. So use paper and pencil tests, or distribute a paragraph and have them write their responses to it.

We also try to find out something about the neighborhood that the kids come from. When you begin work in a new system, it is very important to know the neighborhood. I was in San Francisco about three weeks working with an Oriental community. I did not realize that kids will act out what they actually know to be a true thing. We went into a role-playing experience. The kid who was playing papasan was making pronouncements, and everybody else was saying, "Yes, sir; yes, sir; yes, sir."

I kept asking, "Is this a typical family?" They assured me that it was.

Finally some kid said, "I want it this way," and papasan hit him.

In that neighborhood, if dad said something, that was it. If he made a law, that was the law. When you start any kind of role playing, you are going to get answers, true answers.

The paper and pencil work will probably be curriculum stuff. It also could be in the affective domain--attitudes, values, interests. We sometimes ask kids to give us a paragraph on the most important things in their lives. There are some kids who put down English class, or Spanish class, or French class because they think that is what you want to hear. You have to watch for these. Again, you never tell the kid what you are after.

The only problem with written diagnosis is that it makes what you read more interesting. If you are not qualified to read between the lines, you take it to the counselor. If he is no more qualified than you, he wants to take it to the school psychologist, if there is one. If there is none, you have to go elsewhere. Three or so weeks later, you have a diagnosis, but by that time, you know the kid is a problem.

A lot of things will come out of diagnosing in a written way that will not come out orally. Some kids are so up tight that they will wait about writing what you ask. They know it is not going to be graded and they know what you are after. The written diagnostic technique is pretty good.

I tell the kids, and so do most of the teachers that I work with, "We are just trying to find out about you. If you will level with us, we will level with you." Do not tell them to ask you any question they want to, because they will ask you a lot of questions. You can be open about your personal life if you use discretion.

Be very careful that you do not fall prey to having the kids diagnose you, perhaps, a little more sophisticatedly than you diagnose them. Pretty soon they will know all about you, and you will know very little about them. They all do a pretty good job of diagnosing because they ask anything. You have to be very careful because you are a professional and you are after certain kinds of things.

What are you doing with manipulative activities? Obviously, you can't use them in some classes. You can use the oral technique in almost any class, but in some classes written diagnostic activity is not pertinent. When you diagnose in a skill area, you must think in terms of what skills the kid

already has. You may have to offer some rewards. You also need to give an opportunity for kids to perform all the things they need to perform.

The last kind of diagnostic technique is called "teaching" and it is used in a limited fashion. You will know better what a kid can do if you put the kid in front of the class to teach other kids. That is the supreme test. If a kid knows something, he can teach it. Kids do a great job of reviewing, of teaching. If you find a kid who cannot handle himself in front of a group, do not keep him there very long. You may find a kid who has been faking it, who went through the course, but did not learn.

Let me stop at this point and give you three titles of three books. From the secondary point of view, they make good sense. They are SRA books. One is called, *Solving Classroom Problems*. It pertains to all subject matter areas and really speaks to organizing your self-contained classroom for individualization. The second one *Creating Classroom Learning Environment* is probably one of the best books around for explaining how to split up a self-contained classroom to get different things done. The last one *Values of Teaching* --I know most of you have read it--is worth a second look. It speaks on how to handle your classes.

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### CONTRACTING

Mrs. Marie Conlon, Cherry Creek Schools, Englewood, Colorado

CONTRACTING IS MERELY ANOTHER STYLE OF LEARNING, AND ANOTHER STYLE OF TEACHING. SOME TEACHERS ARE COMFORTABLE WITH IT, AND SOME ARE NOT. SO, I SAY THAT THE OPTION SHOULD BE THERE FOR THE TEACHERS TO USE CONTRACTING OR NOT USE IT. TEACHERS NEED OPTIONS: THEY ARE HUMAN BEINGS, TOO.

When we talk about contracts, we must be a bit careful of the term. It has and can have the connotation of being very rigid, very formal, very legal. However, contracting can be a way to make a program very personalized. It has to have a personal touch.

As teachers, we must have certain commitments that we fulfill. The first commitment is to really get to know our students. If that takes quite a bit of time, then we take the time. Knowing our students, we realize that some kids just cannot handle contracts. Contracts are good for some and not good for others. We will not know this if we really do not know our students.

Another of our commitments is to find materials and make them available on all levels of ability. Again, we cannot do this unless we know our students. If we are going to provide materials, then we must point out to the kids the

places where they can find them in the community, the library, the front office, or with special people, even the custodian. I am not saying spoon-feed them, but to help them organize and form resource lists. If they help develop projects and write some of their goals, they too should be having inputs into the materials they can use, where they find them, what materials are available. As a teacher I have to do some of this myself, but I do not have to do it alone. I need other teachers to pool their ideas with me and students to bring in their ideas and resource materials.

Another important commitment for the teacher is to make herself available as a resource, a guider, a prompter, and encourager, with students working independently.

If as teachers, we say, "This is important, that is important, this is essential," then we have a commitment to put it into the curriculum. There is nothing wrong with saying, "This is what you must do, now there are other ways in which you can do it." This is where the options for students can come in.

Let us look at the commitment on the part of the student. What do we want? Why do we even go into this style of teaching or learning? We do so because we want students to become independent thinkers, planners, doers. We want them to make inputs into their education. They will do things if they are interested, if they know why they are doing it, or why it is important. Students accept the fact that they have to do certain things because they also can have inputs into how it will be done, or can do something else they would like to do. We have to make things more relevant.

We want the kids to have input, we want them to develop some self-discipline, and do some self-evaluation, the most important thing. Self-evaluation is an on-going process where we get them to look at themselves realistically, set some goal, get after it, and get it done.

One of the reasons why contracting is valuable is that it does vary the academic levels. No longer is the studying by homogeneous groups. We can have group contracts or individual contracts. With contracting, there is a greater opportunity to have a variety of academic levels going on all the time. Contracting is a means of self-pacing for the students. It cuts down on the embarrassment for those kids who cannot live up to the class standard. It also lessens the boredom for those kids who are ready to be independent. It also does something for the teacher. It changes us and our style of teaching when we are not the focal point of the class, when we find ourselves doing less talking and more guiding and working in smaller groups with students.

Another thing about contracting is the accountability factor. *The more you get into individualized learning, the more decision-making authority for the curriculum and the program fall on the teacher. It makes you more selective about what kinds of decisions you make.*

The fringe benefits that come from contracting are the independence that

the student develops because he has to be personally responsible. He has a choice of media, activities, reporting techniques, and opportunities for acquiring ancillary knowledge through research, interviewing, project development, and cooperation with others. It reduces the frustration and anxiety for a student; it is based on the interests of the student.

We know a curriculum contract should include behavioral objectives, they should be written for the child, and they should explain exactly what it is that is going to be done, what must be learned, and how the student can demonstrate what he has learned, or the skill, or how he can apply it.

Developing some of these contracts can become frustrating to the teacher, if she is told to sit down and write behavioral objectives. I would rather use the back door approach and have the objectives being written while the activity is going on. I would suggest this procedure.

The contract must vary in the degree of proficiency required of each student. Not all kids can cover all the material and should not be expected to do so. We want them to be exposed, and we set up some minimums, perhaps, but we let them opt in or out. Some students just do not have the knack or the desire for certain things, so we have to make alternatives available--allow every kid in the group to earn that A, if we still have grades.

*Many times we talk about contracting for grades, particularly at the secondary level. That is fine if you have to give grades, but the more individualized you become the more stupid grades become. So, if we have to give grades, we begin in the contract to have the student write some of the criteria on which he wants to be judging himself. The objectives will spell out what he wants to do and the length of time in which he wants to do it, but you have to allow for every student to have the same right to get that grade.*

A simple way of writing objectives into your contracts is to first identify the topic or unit. It can be broad or narrow, but a main topic should be rather broad. Then break it down into subtopics. These depend on the subject matter, on you, and how in-depth the students want to go. In other words, outline the unit (course), project, and how you are going to do it. With each subtopic, become more specific as to essentials, but only the bare essentials. If you can put them in an order of importance, it is fine, but not necessary. Then combine all the essentials of all the subtopics into one big major list of objectives.

The options come from the students. The kids who really want to find out about everything will take the essentials from all the subtopics and go right through the project. Some will say, "I want to find out about this and that, but to heck with the others. I will get that in the sharing." We then have two lists, minimum essentials and all the essentials. We have found that by translating the kid's performance or behavior--his demonstration of what he knows--that we have written the behavioral objectives.

There are different types of contracts: written and verbal. Some kids, even older students, cannot handle written contracting so verbal commitments

should be set up with them. (I prefer, with older students, to call them "commitments" or "agreements" rather than "contracts.") Verbal contracting is important and good for behavior modification, and for constant encouragement.

Any contract can be a long term contract or a short term contract. How do we define long? Again, that gets back to how well you know your kids. Who can work independently for a long period of time? Always allow for the availability of the teacher for conferences with the students to talk about contracts and the work.

Contracts are an excellent way to cut down on some record keeping. They are a good way to report to parents of upper-elementary kids. At the upper-elementary level, contracts are motivators because the parents sign the contract as part of the commitment. They are great in a community where you know your parents want to be signing contracts, want to be involved. But a word of caution is necessary respecting contracting with junior-high and senior-high kids. I can hear them say, "Are you kiddin'? Take my contract home, and have my pop sign it?" If you are teaching in a bilingual school, do not send a contract home to a parent who cannot read or write English. Also, there will always be a few students whose parents can care less about contracting. Think in terms of having a witness sign contracts for these students--a favorite buddy, the principal, favorite teachers, someone to witness the agreement or the commitment.

For this kind of formal contracting, we, as teachers, have responsibilities for inputs. The forms can be written up in advance, and we can fill in the blanks needed. We cannot take the time to sit down and personally draw up a contract in long hand with a student. We cannot get around to every student every day, so have some contracts prepared in advance. Here is what the teacher says, "We have pretested in fractions and what you need is more about addition in fractions. You may get packet MFA 8-11 on your level. I also want you to find some different textbooks. Select two of them, find the sections on the addition of fractions, work some problems, and come back when you feel you are ready."

I would also give some instruction. *As a teacher I still give instruction and I have discussion groups. If it is a large group and if everybody needs it, it is individualized instruction. It is tailoring instruction to the needs of students. If fifty kids need it at once, that is tailored instruction; if one needs it, great.*

What happened to us in upper-elementary grades was that kids all of a sudden started talking about textbooks in a different way. They would thumb through a textbook and say, for instance, "You know I really like the way Singer says it, I can understand him. Old Holt and Mifflin just turn me off." So we have helped them to be a little critical, to be a little selective, to use some research skills. They have to use the index and go to the section on fractions, subtopic, addition of; find it; work some problems. They came to realize that one textbook was not a guide; they had options, and they could be a little more selective.

I need to talk about developing profile cards and records. I have mentioned already that you can keep the contracts in a folder, but you cannot keep every paper on every student for the whole year. So we had them develop a profile card on which they translated what they had completed on their contract. The students thus did the recording. With a class-record book, you could have your class listed then the skill or the project. The class list could be checked off as to who had accomplished what, or who had not accomplished what.

We have found that you have to go back and check for retention, too. You need to develop a short review test which can be coded and recorded on the profile card. You must dream up your own ways of doing it, but use the simplest way possible. You cannot tie yourself down to the record book. By alleviating competition for grades, by letting students keep their profiles, by having evaluation become assessment, we have simplified record keeping.

The term "evaluation" has a connotation that the work is either good, better, or best, or it is either good, or it is bad. Assessment says, "Where are we? What did we start to do? What did we get done? What did we not get done?" I would rather use such terms.

Contracts can be changed and amended anytime that good common sense dictates that you make some changes. In talking with the student, it is important to talk about why he is changing his mind about a topic. Is he finding it tough? Is it not interesting? Or what? Then make some changes or modifications. This is not babying kids. I want to know why; maybe it is partly my fault. I want to get them to make wiser choices in the future.

The reasons why contracts may not be fulfilled are usually three: the student has reached out for more than he can handle; the materials were not available; and kids just do not know how to budget their time. Sometimes, it is good to let the student take more than he can handle since it helps him to look at himself more realistically.

When they do not complete their contracts, it is usually for these three basic reasons. Then you talk about it. There are times that you say, "Boy, that is some kind of a habit that you are in!" Also, I never hesitate to use common sense and say, "John, your contract is going to be finished by tomorrow at four, and I will be here to help you. Now let's get the job done."

At that point, couldn't you also get into the spirit of rewriting the plan so it is feasible? Yes, indeed, and that is where the amendments and the adjustments come in. With a kid who is consistently not completing his contracts, I would look at some things very seriously. Should he be on contract? Have I fulfilled my role of really making, getting, the materials available on his level? Is this someone who just should not be working in this style?

Contracting is merely another style of learning, and another style of teaching. Some teachers are comfortable with it, and some are not. If they are not comfortable with contract teaching, then they should not be using it. Any time that the teacher is uncomfortable, the students are going to be

uncomfortable. If the teacher is confused, they are confused. So, I say that the contracting option should be there for the teachers to use or not use. Certainly, no administrator or department head should say, "You are going to have everybody on contract by October 15," because it is impossible, it is not right. Teachers need options; they are human beings, too.

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### MODEL FOR AN ALTERNATE HIGH SCHOOL

*Virginia Roth, Former Principal, Ryan High School, Omaha, Nebraska  
(Currently Project Director for Educational Development, Westside  
Community Schools, District 66, Omaha, Nebraska)*

Ryan High School is unlike any school in the country. The staff thinks that persons should influence events and not wait to be moved by circumstances. So, the school does not try to follow educational trends; it tries to establish them.

The school operates on some very basic and simple premises: that the school is a large educational resource center as well staffed and equipped as possible with professionally prepared researchers/resource people (formerly called "teachers"), supportive educational devices (hardware), and other learning tools (books, learning activities packages, tests); that the job of the professionally prepared staff is to create a climate in which students can learn.

Since the primary purpose at Ryan is to get the student to learn, all other things are secondary. There are no class schedules for the staff or the students because the most significant learning takes place when students are able to go to the area in which they need to learn, when they can select their friends with whom they feel compatibility to help them learn, and when they can consult with the professional staff of their choice to have their learning evaluated.

Because Ryan endorses the concept that the easiest way to learn is to teach, it involves the students in the teaching procedure. This again means that the students must be unscheduled in order to teach one another. Knowledge is not an end in itself. People learn in order to make the human condition better. This requires sharing knowledge now in the school community so that students can practice sharing knowledge in the larger civic and world communities.

Ryan students must be surrounded by numerous options for learning: options about learning partners, options about staff selection, options about a 5-day school week and a 36-week school year, options about learning activities,

options about course requirements within departments, options about study places. The school provides all these.

The calendar has very little to do with determining when a student has learned enough to get a credit for a course, so the staff encourages content and process mastery rather than weeks endured in education. Each Ryan student can determine when he or she wants to graduate by learning content and process and earning credits to that purpose. A student can receive a diploma any time he has completed his work to the satisfaction of each department's performance criteria. The school encourages students to be independent and individualized, learning at their own rate of speed, faster or slower, rather than by clock hour and calendar rate.

Learning is a hard job and students should be tired at the end of a school day. The school likes it best when they can do all of their learning at school and not take work home. This is still another reason why schedules would hinder rather than help the learning process.

What Ryan is doing is right. Maybe the trends it is establishing can be carried into other schools. Self-paced learning tends to develop understanding and compassion in students. We will know how successful Ryan has been when the present students move into society and influence learning there. We would like to think that Ryan's greatest contribution is that it releases, to the world, community educated young men and women with a sense of direction, commitment to persons, and a compassion that will energize them to work to lift oppression, in whatever form, from the human condition.

#### Observations Based on the Ryan High School Experience

- Kids group on compatibility, not talent. If they maintain the same grouping, consultants (teachers) must counsel regrouping.
- Develop low-success hurdles, IAPs. A IAP is a segment of a course representing six to eight of all the objectives of a course. Prerequisites ease talented kids out of easier courses and less talented kids out of more difficult ones. Objectives and performance criteria are established by the staff with student input. Objectives are the same for all students taking the same course. Courses are multiplied to meet the talents, interests, future expectations of the learners.
- The time factor changes with the student taking the course, but the performance factor does not change.
- Objectives are consistent, but courses change. Teachers or students vary the activities, but not the objectives of a course. The objectives remain the same.
- Courses must be created to meet the level that kids can meet. Kids register for courses according to their abilities, their agreement with course descriptions and prerequisite statements, and their consultations with teachers.

- At the end of a course, the teacher counsels the kid for the next course.
- A monthly, parent in-service mailing is good for public relations. This precedes each monthly, parent in-service evening. Parents should also be contacted in writing and by telephone. The public relations time available on local radio and television stations should be used regularly to give information to the schools, not just for sports broadcasts. Parent in-service should be carried on.
- The student does not contract; he enrolls for credit which is, in a sense, a commitment to a course. The connotation of the word "contract" is that the student is somehow legally accountable, so it is avoided. In fact, the student does not sign anything when he begins a course. He merely trades learning for credit.
- On the transcript of Ryan High School, every course the student completes is listed. At the top of the academic transcript are the following categories for an academic rating: educational promise, consistency of performance, quality of communication, correctness of written English, correctness of spoken English. Students give cards with this rating to four teachers of their choice who evaluate 1 to 5 on these items. These ratings are shown at the top of the transcript. Credit is tied to content and process, not to time.
- In a period of years, grades can be discontinued completely. Parents and students must be educated that this will be the case, and the alternate method explained. A demand for the plan must be created before it is undertaken.

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## INDIVIDUALIZED APPROACHES TO TEACHING

*Mrs. Dorothy Butler, Consultant, Brookings, South Dakota*

### Individualizing Reading

- The language experience begins with key vocabulary.
- The language approach to reading is a teaching method that brings reading and other communication skills together in the instructional program. It uses the language and thinking of individual children as the basis for skills development.
- The sequential development of the approach is as follows:

What a child thinks about, he can talk about.  
What he can talk about, he can illustrate.  
What he can illustrate, he can dictate in story form to the teacher, or write about.  
What he can dictate in story form to the teacher, or write about, he can read.  
A child can read what he writes and what other people write for him to read.

- The scope of the program is--

Using the learning experience approach with individuals and groups.  
Getting key words.  
Developing the story.  
Practicing the mechanics of writing.  
Doing creative writing.

- Activities may include--

The group-experience story  
Shapes, colors, and parts of speech  
Buttermilk painting (no art experience needed)  
Creative writing to mood music  
Interest centers

- The process--it's the real thing

. . .they can recognize little sounds; discriminate visually and auditorily among words; analyze words phonetically and structurally; divide them into syllables. . .but can they--do they Read?

Relating all the various components to each other and to the total process is what reading is all about.

It is the application of skills that get at the meaning and deep into the feeling of reading.

The process of reading is stimulated and becomes a vehicle to higher skills and processes as pupils are given more and more opportunities to just read.

The desire to read develops when good literature, selected by the learner, is used as a basis for reading instruction; when there is the need to read; and when there is a wide variety of available reading materials and sources.

At the earliest level, as much oral language as we can possibly get from beginning pupils should be written down so that it becomes apparent to them that the printed symbols are representations of their spoken language.

- The language experience chart, the news board, instructions for the day, the schedule of daily activities, special announcements, poems, secret codes, calendars should all be posted and changed so that there is something new to read daily and at all times during the day.

- The individual pupil mailbox is an excellent way to begin sending and receiving written messages to be read and to which one would respond in writing (with absolute confidence in the teacher's acceptance of creative or phonetically pure spelling, of course!) This is the stuff from which the best spelling lesson plans are made.
- Interest and appreciation are extended through the sharing of student-selected stories, poems, riddles, jokes, dramatizations, puppetry, choral readings, newspaper and magazine articles, music (with lyrics), art in all its forms, creative writing, political (and other) cartoons, trade books, games (both verbal and non-verbal), as well as the basal series and good, teacher-selected literature. (Exposing but not imposing are the key words here.)
- A quiet time (no matter how short) for the enjoyment of self-selected materials should be set aside and adhered to on a daily basis so that skills application can take place. No demand for a written book report of each selection need be made. Reporting can be done in many ways.
- If a student's reading program is based upon assessment of his skills needs as he progresses along a spelled-out continuum, with grouping consideration or individual activities, then the processes we employ may yield a much greater verifiable product than can be measured by our performance criteria.

### Individualizing Creative Writing

Creative writing starts with the communication skills: listening, speaking, reading, and writing. Begin by talking with children about their experiences and teach language skills according to the level of the children. Some suggested materials and approaches follow.

- Talk about favorite places, asking for descriptive words only.
- Write and send letters. Use a letter template for teaching the parts of a letter. (Using an 8" x 11" sheet, draw boxes for the various parts of a letter, and cut them out. This constitutes the template.)
- Use the Montessori sentence cards to show parts of speech.
- Do buttermilk painting; from the pictures develop spelling word lists.
- Make a "My Hearts Book" showing a cold heart, warm heart, broken heart, bleeding heart, heart of gold, heart in mouth, black-hearted deeds.
- Remember to teach from the concept that spelling is for writing.
- Have the children write poetry using various poetry styles. Compile a book of their poetry so they can see their published writing and that of other class members. For instance, cinquain poetry instructions can be given as follows:

"Take five steps and be a poet!"

1. Write down a noun, person, place, or thing.
2. On the next line, write two adjectives that describe the noun.
3. On the third line, write three verbs that tell what the noun or the first line does.
4. On the fourth line, write a thought about the noun (feelings).
5. For the fifth line, repeat the first line or a synonym.

Examples:

Recess  
Noisy, happy  
Running, yelling, swinging  
Wonderful freedom  
Release!

Daisies  
Yellow, soft  
Dancing, moving, blowing  
Lovely and free  
Flowers.

Duck  
Quacky, squawky  
Waddling, strutting back and forth  
Quiet please, you hurt my ears  
Noisy fellow!

Horse  
Sleek, fast  
Runs, stretches, wins  
Lots of money  
Secretariat.

Individualizing Mathematics

- A positive attitude on the part of the teacher is the greatest single factor in the effectiveness of mathematics instruction.
- Given an enthusiastic teacher, all students can learn some mathematics and some can learn almost all about mathematics.
- Acceptance, affection (for both subject and pupil), and achievement are the appropriate order of approaches to mathematics content.
- If you would individualize instruction:
  1. The learner must know the objective to be reached.
  2. The learner must have access to materials with which he can learn independently.
  3. There must be provision for the learner to check his progress so that he can tell when the objective has been met.
  4. There should preferably be alternative means to reach the objective, so that the learner can choose among these.
- Specific behavioral objectives are the means by which teachers and pupils might begin to record progress in terms of specific skills acquired so as to enhance the entire teaching-learning process, and as a means of indicating steady progress toward the next steps in a continually developing and expanding program of mathematics.
- Design a 5" x 8" card for each behavioral objective. Use for pre- and

post-assessment. The cards may be used as seatwork over a period of a few days. They are informal, non-threatening, and self correcting. The answer key is on the back of the card.

- Materials for non-pencil, non-paper, mathematics learning-activities are especially useful in mathematics labs or learning centers. There are also materials for group interaction and many pencil and paper non-book activities. Samples of these are--

Individual Chalk Boards - 8" x 10" rectangle of masonite, painted with one sealer coat followed by two coats of chalkboard paint. Or, an 8" x 10" rectangle of formica, painted with one coat latex paint. Terry-cloth mitts make excellent erasers.

Individual Math Box - Lightweight, wooden, cigar box covered with decorative adhesive covering, such as Contact, is designed to provide free or inexpensive manipulative devices for each pupil. Some suggestions for contents might be: counting sticks (three bundles of ten, in three colors for regrouping); clock faces (lid from one-pound coffee can) with brightly colored hands cut from a bleach or detergent dispenser and held on with metal brads; basic geometric figures for use in creating interesting designs; individual drawstring bags containing coins of various denominations; containers of corn kernels, beans, washers, etc., for counting or laying the groundwork for multiplication. Inside top may be covered with felt for child-sized flannel board.

- With the exception of Cuisenaire Rods and the Walker Geo-Board, all non-book materials are fail-safe and simple to make. All can be easily constructed by teacher-aides, parent volunteers, or cross-age peer helpers.
- Teaching tips are--

You may count by 2's, 5's, or any other interval beginning at any point on the number line---"5-7-9-11-13, etc." or "7 12-17-22." Good addition practice, too.

- Help children understand the meaning of multiplication. Three approaches are Pairing: two skirts (brown, black) and three blouses (pink, yellow, green), how many different outfits? (6) Intersection: make two lines one direction, intersect with 3 lines made in another direction, how many points of intersection? (6) Row-Column Array: 2 rows, 3 desks in each row, how many desks? Multiplication is the pairing of the members of one set in every combination with the numbers of another set. Introduce division idea early by dramatization: 24 paper circles (cookies), give 2 to each child, record as you give:  $24-2=22$ ;  $22-2=20$ , etc. How many times did you subtract 2? (12) How many children got 2 cookies each? (12) Pupils need to think of division as the inverse operation for multiplication (search for missing factor when product and one factor are known); also as a series of subtractions.
- You can teach some principles of Roman notation along with ideas of addition and subtraction. Addition goes right on number line; subtraction

goes left. This is also the principle of Roman notation. IV, for example, means five less one; whereas VI means V plus one. Careful! Like all rules, the application has its exceptions, but it's a good beginning.

- Use addition and subtraction to build toward division. Children find how many successive additions of 25 it takes to make 125--or how many times they can subtract 25 from 125 before they arrive at zero.

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### LEARNING CENTERS IN THE OPEN CLASSROOM

*David H. Kahl, Fargo Public Schools, Fargo, North Dakota*

LEARNING CENTERS CAN BE INITIATED BY ANY TEACHER IN ALMOST EVERY TYPE OF PROGRAM. WHETHER LEARNING CENTERS ARE USED AS THE TOTAL PROGRAM FOR LEARNING OR IN DESIGNATED PORTIONS OF THE SCHOOL DAY, THE CREATIVE TEACHER WILL FIND THEIR USE REWARDING AND STIMULATING TO BOTH THE CHILD AND HIMSELF.

Learning centers in the elementary classroom serve a vital role with the teacher striving to individualize a learning program and meet the needs of students in his classroom. Learning centers, as used in my classroom, are designated areas within the regular classroom. They are equally important in self-contained classrooms or in larger more open-space classrooms where the learning plan utilizes teams of teachers.

Whether individual teachers or teams of teachers are initiating learning centers, some thought must be given to certain basic topics before a total learning-center approach can be implemented. These basic topics include the following:

- Number of classroom centers
- Scheduling children into centers
- Record keeping at centers
- Individual conferences concerning learning center work
- Materials for learning centers

It would take considerable space to go into detail on each individual topic in the preceding five points, but some basic information can be given for each one.

### Number of Classroom Centers

Although the size of each individual classroom must be considered, the teacher must realize that it is classroom furniture that often takes up the necessary space that could be used for individual learning centers. I am not suggesting that some desks are not necessary, but their arrangement and anticipated usage should be given considerable thought before deciding on the typical one desk per child pattern. By eliminating a number of desks and substituting tables or individual lap boards or tote boards, children can still have a smooth surface to work on, and more of the classroom can be used for learning centers. A classroom with learning centers could resemble the design on page 73.

Each individual teacher, or team of teachers, will usually design centers that serve specific needs in their classrooms. Learning centers within a classroom will vary according to the level of their anticipated usage. Some centers supplement specific units or themes, especially in the areas of social studies and science, while others are diagnostically oriented, game oriented, or centered around group interests.

There is no one magic number of centers that can be used in a classroom. Each teacher must decide on the needs and interests of his individual class. Learning centers will, however, compliment either a self-contained classroom or team-approach program.

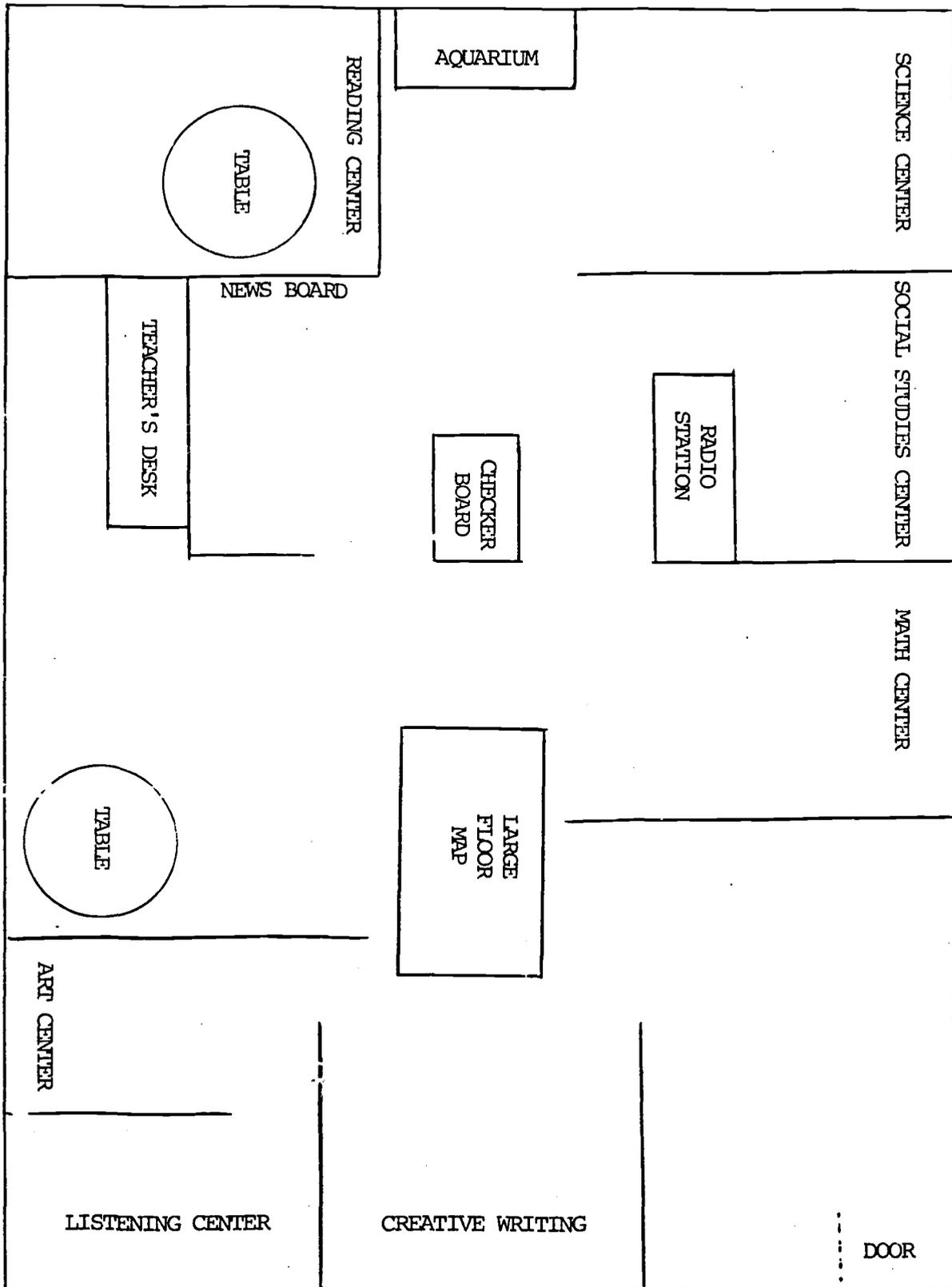
### Scheduling

Centers in a classroom can be utilized in a number of ways depending upon the readiness of children and teachers for their partial or total use in the learning program. Some teachers begin by using centers during a portion of the school day, either in the morning, the afternoon, or both. This allows the teacher to assess the value of centers and may result in their use on a half-day or entire day basis.

A typical schedule for learning centers could be, for the beginning teacher, the period from 9:30 to 10:00 A.M. and 1:30 to 2:00 P.M. each day. Children could be scheduled into centers, or a choice board could be created for them to use in selecting the centers they wish to work in each day. The next step could be longer periods of time for center utilization with children in rotating teams or actually involved in planning their morning, afternoon, or daily center schedules.

### Record Keeping

As the teacher moves toward individualizing instruction in the elementary school, it is vital that evaluation and record keeping also be directed in that direction. Traditional methods of evaluation and record keeping cannot be used, because individualized instruction means individualized evaluation. In creating an adequate record keeping system, the first step should be the setting up of a large loose-leaf notebook with dividers indicating academic



subject areas. Within each category, there should be a section for each child in which the classroom teacher can enter individual evaluations, skills accomplishments, conferences, and assignments.

Record keeping can easily become very detailed. It is important, therefore, that it be developed so individual teachers will find it adequate, but not too detailed. In other words, records should be *short, crisp, and to the point.*

### Individual Conferences

The key to any learning-center-oriented program of individualized instruction is frequent one-to-one or small group conferences between the teacher and children. These allow the child and teacher to diagnose, assess, prescribe, plan, and evaluate on a continual basis. Conferences with individual students can include:

- Learning center work conferences
- Individual reading conferences
- Conferences on reporting or report cards
- Conferences on general topics

These conferences should be considered carefully by the classroom teacher who is encouraged to create an atmosphere which promotes and encourages continuous communication between the teacher and child. Awareness on the part of the child as to his progress and success motivates learning. Conferences allow this to happen.

### Selected Readings on Learning Centers

Kahl, David H. and Gast, Barbara. *Learning Centers in the Open Classroom*. ICED Publications, 16161 Ventura Boulevard, Encino, California 91316

Franklin, Dr. Marian. *Classroom Centers and Stations in America and Britain*. MSS Educational Publishing Company, 655 Madison Avenue, New York, New York 10021

*Nooks, Crannies, and Corners*. Acoustiphone Corporation, 8964 Comanche Avenue, Chatsworth, California 91311

*Invitation to Learning--The Learning Center Handbook*. Acropolis Books, Limited, 2400 Seventeenth Street, Washington, D.C. 20009

For additional information contact David H. Kahl, 424 11th Street North, Moorhead, Minnesota 56560

## Materials for Learning Centers

### Reading Station

A wide variety of supplementary books on many levels  
Newspapers and Weekly Readers (on many levels)  
Dictionaries on many levels  
Sear's and Penney's catalogs  
Telephone directory  
Book jackets showing Caldecott and Newberry Award winners  
A bulletin board nearby to show favorite authors, books, stories, poems, etc.  
A box containing comic books labeled "Enjoy a Classic"  
A rocking chair  
Chairs of different heights  
Many types of magazines -- Look, Life, etc.  
Atlas  
Pilot Library  
Developing Reading Skills  
Paper backs  
Almanacs  
Stamp books -- Cook books  
Mystery stories, fairy tales  
Manuals for operating equipment in classroom

### Listening and Viewing Station

Tape recorder and tapes from all curriculum areas  
Record player and records from all curriculum areas (headphones, too)  
Filmstrip machine and filmstrips  
Viewlex  
Graphlex  
Dukane  
Mini-loop  
Overhead Projector and transparencies  
Ealing Film Loops

### Math Station

A variety of supplementary texts  
Tapes and Records (Sometimes they are at station 2 and other times at station 3)  
Games -- The Winning Touch, Math Quizmo  
Crossword kits - whole numbers, fractions, and problem solving  
Cuisenaire rods  
Geoboards  
Fraction kits, charts, graphs  
Measuring devices -- yard stick, ruler, cups, spoons  
Geometric blocks  
Play money  
Compass  
Protractor  
Different sizes of cylinders, squares, rectangles, graph paper, etc.

### Writing Station

Handwriting books  
Paper, pencils, pens, paper clips  
Scratch and scribble box containing ideas for creative writing  
Picture box  
Dictionaries on all levels  
Thesaurus  
Area to publish finished work  
Typewriter  
Poetry Box

### Social Studies Station

A variety box containing pictures, articles, brochures, maps, travel posters about the state  
A map box containing road maps, land forms, population  
Biography box listing famous people who have contributed to our culture  
A variety of materials such as magazine articles, pictures, books  
Map and globe skill lab  
Assortment of charts and graphs  
Globe  
Atlas  
Variety of maps (cover a box with a map to house these)  
Historical study prints  
Games

### Science Station

Supplementary books on different levels  
Microscope  
Wide variety of slides  
Box containing many scientific pictures and leaflets  
Experience sheets on various scientific findings  
Weather instruments, charts, worksheets  
Pictures of planets, oceans  
Collection of shells, rocks, seeds, leaves  
Samples of soil  
Preserved specimen  
Magnifying glass  
Hand lens  
Aquarium  
Test tubes  
Bunsen burners  
Collection of bones of different sizes  
Thermometer  
Terrarium  
Tweezers  
Telescopes  
Paper, pencils for recording findings  
Sorting cards for -- fish, plants, animals, mammals, birds, anything to encourage classification

Prism  
Color wheel

### Exploring Station

Button box (*What Shall I Do With This?* by Margaret Hutchings)  
Various textured materials to appeal to the senses  
Potpourri box filled with scraps of materials  
Thread, plastic needles  
Crossword puzzles  
Riddles and jokes  
Different types of educational games  
Color charts from a paint store  
Puzzles  
Assortment of any materials that might excite curiosity  
"Junk Box" (Search the junk box for unusual things)

### Personal Attention Station

Mirror  
Soap and Towels  
Large assortment of different colors of paper (Student stands in front of mirror, holds paper in front of his body to discover which color complements him best. Two or three children share this experience at one time.)

### Checking Station

Answer keys  
Teachers manuals  
Ball point pens in rack  
Staplers  
Identification tags

### Current Events Station

Newspapers  
Weekly Readers -- many levels  
Magazines  
Space for clippings  
Weather study (Daily reports may be a part of this)  
News items on local, state, national, and world level

### State Box

Map showing landforms, counties, major crops, industry  
Travel posters  
Brochures and pamphlets  
State magazines  
Free state materials  
Pictures  
Tapes Records

## Art Station

Easel

Different kinds, sizes, shapes, textures, and colors of paper

Finger paints

Tempera

Colored chalk

Crayons, marking pens, colored pencils

Materials for weaving, stitchery

Box of materials for collages

Tissue paper

Glue, paste, starch

Bags, socks, papier-mache for making puppets

Art prints and art objects

Books of crafts, artists, pictures of paintings

Box of paper scraps and material scraps

Magazines and catalogs

Wallpaper samples

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## CONTRACT LEARNING

*Robert J. Sauter, Lost River High School, Merrill, Oregon*

Contract learning permits the teacher to individualize without large financial outlays. However, its implementation will require additional resource materials. Real individualization in learning occurs when mastery of curriculum content can be approached through the use of various resources. Flexibility in resource materials enables the learner to approach learning in a manner consistent with his unique learning styles. If all students are restricted to a single resource, individualization has not occurred.

When all students learn the same thing, in the same way, and at the same time, individualization has not occurred. Individualized learning takes place when the learner learns the appropriate thing, at the appropriate time, in a style consistent with his learning peculiarities and abilities. Student learning styles will, in turn, determine the resources which need to be made available. True individualization also permits the learner to proceed as rapidly as he wishes or as slowly as he must in order to learn.

Contract learning is a means through which individualization may be reached. A learning contract simply states what the student will be expected to do when he has explored a definite area of learning by passing through a series of learning experiences consistent with his unique learning abilities and styles. In essence, the learning contract becomes the learning package that

outlines the definite and limited area of learning to be mastered. Its format may be quite simple, or it may be quite sophisticated. Briefly, a contract consists of three main components: behavioral objectives; learning activities or experiences; and evaluation instruments.

Prepackaged contract materials will normally be more complex in content than those produced locally. The use of prepackaged materials demands close attention to their learning experiences, since these are the key to individualizing learning. Unless the teacher properly diagnoses his students' learning styles and prescribes accordingly, the use of prepackaged contract materials will result in individualized pacing, not necessarily, learning. Again, the key to individualization lies in the teacher's ability to respond to learner styles, however simple or complex, and to reflect them when prescribing learning activities or experiences.

The teacher who uses an individualized approach to learning must become skilled in recognizing learning similarities among learners. This prevents development of an impersonalized learning environment. Small groups, learning circles, brainstorming sessions, and other interaction techniques must be teacher structured if the ultimate in student response to individual differences is to be attained. The sight of learners helping learners must be commonplace in the individualized classroom.

Teachers must expect their roles to change when contract learning, or any individualized approach, is implemented. The successful teacher must learn to diagnose student learning styles, become a prescriber and guide in the learning process, and tactfully interpret student individual differences to parents and community when student progress and achievement are specifically identified.

Student progress and achievement must be monitored and specific records kept when using an individualized approach. Therefore, teachers should anticipate an increase of paper work. If teacher aides are provided, many of these duties can be carried out by the aides.

In an individualized learning environment, the learner assumes much of the responsibility for his own learning which is as it should be. Teachers must be prepared to permit freedom in the approach to learning. A questing atmosphere will inevitably develop among students. It is within this framework that the skilled teacher will apply conditioning elements necessary to successful learning. Within this arena, the learner tends to become independent of, rather than dependent upon, the teacher for his learning.

Contract learning is a kind of individualization; it does not represent a panacea for all learning difficulties. Its strengths lie in the many areas already mentioned, as well as in its open-access curriculum in which a student may pursue levels of interest or difficulty.

Prior to implementation of contract learning, teachers and administrators must judge whether required resources are or can be made available. They must also determine whether or not a climate for change exists in the building or educational unit. Contract learning will not succeed unless a strong

educational leadership exists. A change in the learning program does not simply happen; it ought to represent a response to a needs assessment and an acute awareness of student individual differences. Identification of needs should be followed by in-service training of teachers and administrators, if needed.

The greatest difficulties in the implementation of contract learning will be experienced in procurement of adequate resource materials and interpretation and reporting of student individual differences. Reporting progress as well as achievement will assist in resolving the latter difficulty. The establishment of minimum standards relative to the number of contracts to be completed for credit will also be helpful. However, parents will continue to insist that Mary and Johnny keep up with their class. The nongrading which contract learning introduces can be traumatic for the status-conscious parent. A simple pass/fail or credit/no credit deserves consideration as an appropriate grading system.

Initially some students will resist contract learning since students are reluctant to assume responsibility for their own learning. For the secondary student, who is removed from the protection of the group or class, this too can be a shattering experience.

Counseling time for students must be provided. This can be accomplished through establishment of an advisor-advisee system. Supervision of teachers must also be increased, at least initially. Removing the principal from the role of general storekeeper to supervisor of teachers and curriculum will require adjustment on the part of principals and their immediate superiors. Securing sufficient time for the principal to supervise teachers and curriculum can present a serious obstacle to effective program change. Also, the need to provide in-service training for administrators must receive attention.

The implementation of contract learning demands time and patience as well as financial increases in the area of instructional improvement. Above all, it requires a commitment from teachers and administrators. The excitement about learning that it generates among students is its greatest asset. The learning process, by its very nature, demands a degree of self-discipline and places restrictions upon human inclinations; therefore, the fact that some students and parents do not like contract learning does not necessarily destroy its validity. Like the man who continues to enjoy bad health, many students will continue to enjoy learning. However, an intelligent response to student individual differences ought to bring about true learning enjoyment.

## PPBES FOR SMALL SCHOOLS

*Dr. Donald E. Ege, Deputy Superintendent*

When we talk about PPBES, we are talking about a way of managing, not a way of budgeting. Budgeting is only one small part of PPBES. Budgeting is just a tool to help you in planning, a tool to help you make certain that you have the money to do the things you want to do.

I would like to give an overview of the PPBES concept which has been called by some the "Educational Resource Management System." Even if you are a classroom teacher, you are a manager, and you talk about managing resources. You have resources like materials, equipment, time, and space. These are all resources that you use to try to help youngsters achieve the goals that have been set for them. So we are all managers, and our consideration here of PPBES is appropriate and applicable.

The words for which PPBES stand are planning, programming, budgeting, and evaluation. They are key words. Planning is strictly finding out what is to be done. Programming, how are you going to do it? Budgeting, what kind of resources are necessary and how much do they cost? Evaluation is simply did you do it and how well? These are all things that you do everyday in your job somehow or another.

Planning, what is to be done? If you have set some goals, you have set some targets or objectives. At some point, you measure how well you are doing as an institution, or how well youngsters are doing against a certain set of goals that you set for them. Then you find the difference between what you want to be doing and what you are doing. The difference is a need. It might be a need for a youngster; it might be a need for an institution, a school, a district. So, you begin to make plans based upon the resolution of that need. If you have a youngster two grades below his level, between where you think he is and where you think he ought to be, you say, "How can I give him a program, a plan of instruction, a set of experiences, a curriculum that will help him move from where he is to where he ought to be in a certain time?"

Planning is merely saying what has to get done. Those of you who have written objectives or have talked about goal-setting and needs-identification know that planning can be either a very complicated process or it can be a fairly simple process. At least at some point, you can say, "These are the needs we've identified; these are the priorities; these are the most important needs that we want to resolve; those are the ones to which we're going to make some kind of commitment."

Programming, from the PPBE point of view, is how shall we do it? What are the activities and experiences that we want the youngster to have? That is curriculum, isn't it? What kind of sequence of activities and experiences? That is scheduling. We ask questions such as, What kinds of materials do we need? kinds of media? kinds of methods? You try to take the resources available to you and translate them into some learning achievement on the

part of the youngsters. So programming is saying, "If we have a certain job to do, this is the way we're going to do it--the processes, procedures, materials, people." You could say, "That is a reading program." You identify a number of goals for a youngster and sort them out into programs. You build programs for reading, language arts, social studies, math and science. You can then say, "Here is how we're going to carry out that goal for a year, for six months, for today's lesson."

Budgeting, what are our resources? We need to have certain kinds of personnel, classified and certificated. We need certain kinds of secretarial assistance. We need certain kinds of materials, books, projectors, space, and facilities. Someway, we have to translate those that are necessary to carry on the program into dollars and cents. How much does it cost? Do we have enough money? If we do not have enough money, what do we do? We look to see whether we set the right priority needs and whether we can meet as many of the needs as we set out to meet.

As you begin PPBE, planning, programming, budgeting, and evaluation, you set priorities because dollars are getting scarcer. We do not have as much money as we think we need. We do not have as much time. We have too large classes. All these things can be sorted out in answering the question of money. Do we have sufficient money? That is budgeting, a tool to help us do the job.

Evaluation, did you do it and how well? You evaluate not only as to whether you did what you said you were going to do, but you use the information to tell you whether your goals were right. Were they the right needs? How well did your processes help do the job? If you had used alternative programs or methods, could you have gotten greater achievement? Evaluation helps you know how well you did. You do evaluation everyday.

There are a lot of suggestions lately that the classroom, the school, the district, and the state be more systematic, be more careful, about the way they do evaluation. What you do in a schoolroom has an impact on the kind of information, the kinds of requests, that we take to the legislature. We need to take the best information we can get so we can show where the educational needs are for our youngsters.

Our patrons, our boards, and legislators, have been asking, "What are we trying to do as educators? What are we doing, and are we making any progress?" These are the questions being asked of us. They are the questions that we are asking of ourselves. What are the priorities to be met within the resources available?

People have expectations of teachers and the classroom; teachers have expectations of themselves, the public, the state. Different ones have different expectations. We have got into the trap over the years of assuming more and more responsibilities without additional resources. As a result, the pressures upon the classrooms of this state and other states have brought the questions, "What is it we're primarily responsible for? What is our primary area of accountability? responsibility? What are some of the things that the community has to take some responsibility for?" Then we ask the questions,

What are the most effective ways of accomplishing priorities? How do we know when we've met the priorities?

There are a number of concerns being expressed by students, teachers, administrators, patrons, legislators, the State Board of Education, and the State Department of Education. There are requirements that are coming about in some cases because of federal action, state action, or local action. In some cases, these concerns are being expressed because of frustration, because of a desire to do a better job.

When we talk about *w.ay*, we are in the age of accountability. It is not only a question of educators being accountable to the public, legislators, and others. Many people picture accountability as a one-way street. Rather it is a question of having good information about the needs of youngsters. The public and the legislature need to be accountable, in turn, to educators. Here we see the PPBE concept.\* It has three important components: planning, programming, and evaluation. In the center of the diagram is program plans. If you are an elementary reading teacher, you have a set of plans for the year. You modify them monthly, weekly, daily depending on the youngsters' needs. In the beginning, your program was developed because of the goals and needs that you had determined. So you have program plans for reading in grade four. But you say, "How do I revise my plan? How do I find new alternatives? How do I know whether I am on target or not?"

If you look at these three components, you see you use a planning and evaluation cycle; it is a process. You use all these elements to identify what should be going on, whether it is going on, what are the needs and priorities. You go through this process in implementing changes in your program and in seeing whether your plans are on target. You can draw a circle around the operating program and planning/evaluation cycles on the ERMS Components diagram. You as manager are involved in both of them. You operate a program; you use processes to refine and improve your program.

There is information that comes out of your program and goes into an information system which may be your file cabinet in the principal's office or a computer downtown. After information is collected, it is processed and it is fed back to teachers, principals, and superintendents or to the state for some meaningful purpose. It is used in the planning cycle to help keep things on target--you, the state legislature, the State Board of Education, or whoever.

Let us take a look at the planning/evaluation cycle, because it is the thing that we have to know more about. It is not an easy thing to deal with, but it gives us direction for finding out what exists and seeing how we can resolve the difference between what is and what we hoped for. It is always focused upon needs, primarily the needs of learners, but also the needs of

\* Dr. Egge was referring to material distributed to participants entitled ERMS/EPMS. Copies are available from Dr. Don E. Egge, Deputy Superintendent, State Department of Education, 942 Lancaster Drive N.E., Salem, Oregon 97310. The reference is to page 2.

institutions, teachers, administrators, and others.

Look at these questions:\* Have we identified the relevant needs to be resolved? the problems to be solved? Have we set some goals? some objectives? If you look at each of these questions as you plan a new program or look at an old program, you will find that they lead you to solving problems. So, essentially it is a sliding evaluation process. It is a problem solving process.

There are a lot of solutions in the field of education. We have solutions, but we are not sure that we have problems that can be solved by the solutions. You have heard about differentiated staffing, team teaching, individualized instruction. These are solutions to selected problems. They may be excellent solutions if matched with the right problems. What is the process that you use to identify the problems, and then match and select the solution that is going to be most helpful to you?

Read the eighteen questions, then consider them as a broad planning/evaluation cycle.\*\* Again, we have the identification of needs resulting from finding the difference between what should be and what is, prioritizing these needs by making a statement about them. This is a generic cycle. There are some modifications to these questions that one could apply in developing an instructional program; but the basic concept is there.

As you look at the ERMS Components diagram,\*\*\* you can see the manager following these eighteen questions. He begins to identify ways to revise the program, ways to look at new programs. Data comes at the operating/program plans cycle. It may be achievement data or other behavioral data--things related to the classroom. Data is translated so it will give information useful to the manager. It may be in the form of test scores, tallies of youngsters' behavior, positive and negative. It may be data on how teachers are performing in the classroom. The data becomes meaningful information to help him, in the planning cycle, to go back and modify his program.

This then is our view of the ERMS (education, resource, management system) or PPBES (planning, programming, budgeting, evaluation system) concept.

The topic tonight is "PPBES for the Small School." I think you sense that we are saying this kind of cycle, this kind of system, is applicable no matter what the size of the school. It would be just as applicable for a very small school as for a very large school, as well as for the state. The basic focus of any system of this type is on the individual school.

The system will give faculties of small schools some additional responsibilities, perhaps, in terms of making good judgments about what programs ought to be, how money is to be spent, the kind of tools needed to manage resources without having them mandated by some higher authority.

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\* *Ibid*, p 11

\*\* *Ibid*, p 9

\*\*\* *Ibid*, p 2

As I said earlier, I think you are doing PPBES now. Again the focus of this system is upon the needs of students, on the requirements necessary to meet these needs.

The interest of the State Board of Education and the State Department of Education in this system is in enabling all educators, all institutions in the state, to improve their management skills. We are struggling to do that, too. Our job is to develop models, guidelines, and other helps that will assist schools in taking advantage of and using this kind of a system. We realize it will be maybe ten or fifteen years before PPBES is implemented in a sophisticated way. Again, you are doing it now, but there are ways that you can improve your planning, programming, budgeting, and evaluation.

\* \* \* \* \*

Following Dr. Egge's remarks, Ed Sanford, Director, Business Systems, State Department of Education, introduced a slide presentation prepared by the Department on a new accounting system for school districts based on the PPBES concept. The new accounting system is to be implemented by July 1, 1975, for the FY 1976 school budgets.

Since the summer institute, slide-tape packages using the slides shown by Mr. Sanford have been prepared. The tape explains or narrates the slides. The packages will be placed in IED offices around the state, probably in late August or early September, for use by local school districts.

A training package is also being printed describing the entire new system. These will be given to districts when they see the slide presentation (slide-tape package). A twenty-two-page handout, a series of black and white reproductions of the slides and tape narrative, is also being printed for distribution to school districts.

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## NEW GRADUATION REQUIREMENTS

Tuesday evening, a five-member panel chaired by Dave Curry, State Department of Education, discussed the new requirements for graduation from Oregon secondary schools and the steps districts need to take in a long-range approach to their implementation. Other panel members were Don Bunyard, Marshfield Senior High School; Eldon Blanford, McKenzie River High School, Lane county; Earl Anderson, Multnomah county IED, and Dennis Crow, Sandy High School.

Mr. Curry stated that the new requirements would apply to 1978 graduates,

the class starting in 1974. Local district plans for implementing the new regulations must be filed with and approved by the State Board of Education by July 1, 1974. He emphasized that the new requirements had greater flexibility than the present ones based on the Carnegie unit.

Panel members described some recent efforts by local groups to determine performance indicators which, under the new regulations, must be determined by local school boards; to examine curriculum and philosophical implications of the new requirements; and to write definitions of competencies using a team approach. These activities were undertaken, largely, at the request of the State Department of Education for the purpose of suggesting ways of implementation which it could publish.

They advised institute participants that school districts should start now to briefly set up their district performance indicators and goals. Administrators should outline a time line for activities to implement the regulations. A district or multi-district planning group was recommended.

Mr. Curry indicated that under the new regulations a variety of subjects (courses) can be used to satisfy required areas of study. Fractional units of study are permitted.

It was announced that this fall (1973) the State Department of Education expects to have a guidebook ready for distribution to districts suggesting ways of implementing the new regulations.

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## COURSE GOALS

*Sandra J. Scofield, Northwest Regional Educational Laboratory*

The Tri-County Goal Development Project has as its initial objective the production of collections of educational goals (learning outcomes) appropriate for use in management and planning at all school levels. It provides a non-prescriptive system of alternatives for those seeking answers to the questions What is to be learned? has it been learned? The project's long-range purpose is to help school districts develop goal structures for instructional planning and evaluation.

Goal collections now exist in art, music, science, health education, mathematics, physical education, language arts, and social sciences. During the summer of 1973, collections in home economics and vocational education will be produced.

To understand and use the goal collections, it is necessary to understand

their place in the hierarchy of goal and objective planning. The four levels of goals usually discussed are system, program, course, and instructional goals. Program goals provide canopies for the course goals. They are broad statements of behaviors and knowledge students will exhibit after achieving the course goals. Course goals make up the bulk of the collections and are useful primarily at the curriculum planning level.

A course goal is a statement of a student outcome, something that is considered worthwhile for a student to know or be able to do. Course goals avoid verbs such as "understand" and "appreciate" and statements of demonstrable activity, such as "draw a chart" or "show his understanding of" since these are instructional level statements.

The collection is a resource. It might be thought of as a bank from which appropriate monies can be taken for various uses. It is a resource not a dictate. It is not the intention of the project to say, "Here are goals which all students should achieve." On the contrary, it is the intention of the project to provide many alternatives in a useful, retrievable, well-organized, indexed and coded manner. This would then permit a teacher, department, building, or district to select, according to their own criteria and needs, the goals which are appropriate for their students. The person or committee selecting goals must decide on instructional level goals, activities, methods, and measurements of the goals.

For the individual teacher, the goal collections might be particularly helpful in planning cross-area goal structures. For example, in teaching a short story unit, the teacher might select goals relating to reading comprehension, narrative writing, history of literature, and specifically, short story learning outcomes. With this broader perspective, all teaching units might broaden and be enriched and, incidentally, be more closely related to learnings in other disciplines.

For more information or copies of the collections, teachers or schools should contact the Multnomah County IED (Mr. Jack Alien or Mr. Peter Wolmut) P.O. Box 16657, Portland, Oregon 97216.

## HOW TO PREPARE RESOURCE PACKETS

At the request of many institute participants, Dr. Pino conducted an evening session on the preparation of resource packets. He made the following points.

- A resource packet is not a learning packet. It is a catalog of all materials relating to an objective, topic, or subject on which a student or class is working.
- Resource packets may be made by kids. Written packets may be made by age seven; picture resource packets may be made by still younger children.
- The items may be arranged in two columns: what and where found. The pages may be stapled together. On the cover indicate the packet's assigned number, the objective, and the name of the child who prepared it.
- Begin development of a resource packet by having the children brainstorm the materials which relate to a given objective. They should include known quantities in the school and materials they would like to have. Put cost restraints on the materials that they would like to have.
- After the brainstorming, appoint a child to classify the items, weed out duplicates, check on where the items are located, and make an interim packet. One page for each classification is suggested. Encourage the child to increase the listing all the time by searching the library and asking other children for suggestions.
- Several children can work on the same packet. Other students can make duplicate packets.
- The purposes in building resource material packets are to (1) have kids do part of the teacher's work; (2) make the work part of the language arts program; (3) teach classification, arrangements, and research skills; (4) motivate; (5) provide a vehicle for teaching trust.
- Start with a teacher list on the objective. This gives the kids the idea of what is wanted. Then brainstorm with the students. Cut down on the list by having them list their preferences, then make the suggestions into a resource packet.
- Trust is taught by placing the child in charge of all the stuff listed in the packet--he is custodian of the items--and by teaching children to protect the materials in the packet.
- The non-reader can help build packets which will teach reading at his level.

APPENDIX

Institute Participants By District

ALSEA

Mary Bray  
Linda Carper  
Beverly Evensen  
Ben Goodling  
Crystal Kabler  
Kathleen Koskella  
Leslie Rau

AMITY

Cecille Dashney  
Barbara Hoover  
Jefferey Howard  
Georgia Meier  
Dave Moore  
Carol Ottaway  
Sally Utterstrom  
Myrna Wiltse  
Sally Wyffels

ARLINGTON

Lewis McDonald

ATHENA

Della Mae Alleman  
Kay Bills  
Eileen Kennedy  
June McCorkell  
Maxine Scott  
Joan VanOcker  
Jennie Winkler

BANDON

Peggie Briggs  
Linda Milne  
Careen Pierce  
Sally Russell  
Emma Sorenson

CASCADE LOCKS

Carol Atherly  
Marien Burger  
Sandra Hann  
Grace Hansen  
Carol Irving  
Mary McCulley  
Tom Nash  
Herb Nicholson  
Eugene Van Beveren  
Rogers Wheatley  
Ken Wittenberg

CENTRAL LINN

Kathleen Boase  
Dorothy Grossnicklaus  
Eloise Irwin

COLTON

Robert Anderson  
Barbara Axmaker  
Steven Beecroft  
Janet Binkley  
Amy Castle  
Larry Castle  
Jody Darling  
Erwin Ellis  
Marie Ellis  
JoAnn Haines  
John Hathaway  
Gary Hedeon  
Susan Hergert  
Fred Hermann  
Robert Johnson  
Wayne Kee  
Rod Mansker  
Dick Meehan  
James Putman  
Lois Putman  
James Randall  
Robert Rice  
Mike Smith  
Susan Spain  
Renee Stockam

CONDON

Shirley Alford  
Jeanette Bisek  
Chester Boyle  
Neila Carter  
Arnim Freeman  
Ione Furniss  
Wayne Furniss  
Arthur Masters  
Jack McIntosh  
Martie McQuain  
Walter Miller  
Jeanette Pedersen  
Juanita Shearer  
Mable Vaughn  
Ferman Warnock

CRANE

Maurice Thorne

CROW APPELGATE

Mildred Blackwell  
Martha Loewen  
Allen Morris

CULVER

Nels Thompson

DAYS CREEK

Duane Cummings  
Gem Moore  
Karen Nelson  
Chris O'Harra  
Cathy Sindelar

DAYTON

Alice Campbell  
Bob Collins  
Robert Dittmer  
Francis Dummer  
Frank Ellis  
Carolyn Irving  
Dick Loy  
Bernice Payne  
Sybil Seward  
Arlene Valdez

DETROIT

Eunice Garrett

DUFUR

Evan Ellis  
LaVerna Harmier  
Linda Noble  
Barbara Paist  
Carol Vergeer  
Robin Wagenblast

ELGIN

Sharon Anderson  
Ray Blaylock  
Lee Ellen Coe  
Joe Estes  
Kathleen Koehn  
Tom McDowell  
Barbara Plass  
Bertron Sarff  
Thordis Whitemore

ELKTON

Carol Beckley

FOSSIL

Milt Boring  
Roberta Greiner

GASTON

Farland Johnson  
Ina Marie Withycombe

HARRISBURG

Dick Bowers  
Christina Brown  
Merlin Crabb  
Marcia Crownover  
Wallena Egge  
Neva Huff  
Melvin Larkin  
Claribel McDermott  
Pat McDole  
Louise Morse  
Mildred Olson  
Donna Pluth  
Thomas Pluth  
Gary Scott  
Lucy Susee

HELIX

Stan Flerchinger  
Douglas Harper  
Nora Lee Holdman

HEPPNER

Karen Dubuque  
Pat Edmundson  
Carol Sue Jones

HUNTINGTON

Donald Armstrong  
James Kodama  
Frank Nipper  
Bert Stevens

IONE

John Edmundson

JEFFERSON

Deloris Hovelsrud  
Beverly Jellison  
Gail Johnston  
Lois Killinger  
Lulu Magdefrau  
Linda Poole  
Lyle Rilling  
Sherry Thurman  
Mas Watanabe

LOST RIVER

James Ozburn  
Richard Reiling

LOWELL

Donna Erickson  
Patricia Sheppard

MacLAREN

Art Keating/Barbara Pope  
Bud Logan  
Sandie Palnick

MAPLETON

Jetty Callen  
Margaret Campbell  
Trich Crombie  
Cheryl Derry  
John Dunn  
Irvin Eason  
Denny Ellis  
Pauline Fox  
Mary Green  
Johnny Hale  
Gary Hertzog  
Martin Johnson  
Nina Johnson  
Jan Klein  
Larry Klein  
Marjorie Landis  
Nick Mause  
Rodney Mebius  
Sky Pennel  
Dan Scarberry  
Diane Sydow

MARCOLA

John Haller  
Barbara Locke  
Harold Locke  
Myrtle Sagen  
Elizabeth Seaton

McKENZIE

Margaret Estenson  
Patricia Gardner  
Jean Hosey  
Susan Peterson  
Pat Steele  
Patricia Steinmetz

MERRILL

Peggy Griffin  
Ruth Groeneveld  
Janis Kafton  
Paul McKillop  
Georgia Moore  
Eleanor Nelson  
Beulah Reddington  
Myrtle Rippey  
Lucille West

MILL CITY

Kay Bell  
Al Glover  
Sigrun Grimstad  
Jepson Lonngquist  
Otho Sanders  
Alice Smith  
Bob Twede  
Carole Twede  
Mary Wright

MITCHELL

Raydonna Beachy  
Virginia Humphreys  
Kevin O'Neill

MONROE UNION HIGH SCHOOL

Dave Haggerty  
Ken Leach  
Pat McNulty  
Jeanne Pfister  
Ray Taylor  
Helen Wagner

MONUMENT

Suzanne Carroll  
William Leininger

MT. ANGEL SCHOOL DISTRICT

Norris Ganstrom  
Marveen McCready

MT. ANGEL SEMINARY HIGH SCHOOL

Sister Regina Kust  
Elmer Valkenaar

NORTH DOUGLAS

Sharon Berube  
Frankie Mae Cole

OREGON STATE CORRECTIONAL INSTITUTION

Ron Anderson  
Tom Ashton  
Charles Beiser  
Kenneth Craig  
David Fetter  
Jake Hulbert  
Elinor Metsker  
Jim Robison  
John Tarr

OREGON STATE SCHOOL FOR THE BLIND

Mary Breckenridge  
Genevieve Bridges  
Beppie Hello  
Mary Rigby

OREGON STATE SCHOOL FOR THE DEAF

Nellie Alvarez  
Loretta Diarmit  
William Erickson  
Naomi Goforth  
Paula Guiles  
Lorraine Jenkins  
Joan LaChapelle  
Judith Lorenzen  
Mary Ann Matujec  
Ethel McKeon  
Bonita Nelson  
Naomi Pfnister  
Cathy Rathbun  
Phyllis Rattray  
Shermalee Roake  
Betty Lou Saabye  
Charlotte Shepard  
Marceil Spitznogle  
Beverly Jean Teets  
Osie Van Santen  
Donna Williams  
Sue Wisser  
Toni Wolf

PAISLEY

Doris Aikins  
Gary Dale Bamburg  
David Gaines  
Sam Gordon  
Beverly Hills

PINE EAGLE

Linda Bippes  
Deborah Bradbury  
George Fenton  
Nancy Gover  
Mary Graven  
Phyllis Humphrey  
Donna Maeda  
Noble Morinaka  
Daryl Robertson  
Judy Sanders  
Randall Sanders  
Sue Stein  
Velma Weir

PRAIRIE CITY

Wilma Nicholis  
Bob Periman  
Frances Wilson

RIDDLE

Blanche Chapman  
Priscilla Gaedecke  
Donald Mustoe

ROQUE RIVER

Helen Jentzsch

RUFUS

Elisabeth Dallmann  
Sharon Lee  
Edythe Moreau

SACRED HEART ACADEMY

Sr. Agatha Aicher  
Sr. Stella Boyle  
Sr. Eileen Brown  
Sr. Arlene Cummings  
Sr. Marilyn Guldan  
Michael Kelly  
Sr. Kathleen Kircher  
Sr. Barbara Land  
Rebecca Kay McAllister  
Sr. Beverly Miles  
Sr. Ignatia Ann Moore  
Sr. Maureen Niedermeyer  
(Continued on next column)

SACRED HEART ACADEMY (Cont'd.)

Sr. Margaret Pillette  
Sr. Sheron Sullivan  
Sr. Lorraine Ward

ST. JOSEPH'S, SALEM

Jean Pavelek  
Hilda Ritchie  
Suzanne Rutter  
Veronica Stiles  
Sr. Anne Toback

ST. PAUL

Florence Saalfeld

SHERIDAN

Lester DeHart  
Rosalinda Kirby  
Grace Leith  
Margaret Melonuk  
Bill Monroe  
Chris Morris  
Patricia Potter  
Patricia Scott  
Patricia Shockey  
Alta Spooner  
Olivia Stout  
Etienne Tschanz

SILETZ

Steven Fujihara  
Doris Hazel  
William McIntyre  
Larry Niemi  
Randy Swenson

STANFIELD

Christina Kreick  
Ken Manns  
Sylvia Smith  
Latrell Smoot  
Mildred Vehrs

TILLAMOOK CATHOLIC

Rev. Benedict Suing

TYGH VALLEY

Judy Bickford  
Cecelia Cushing  
Audrey Hanna

UKIAH

David Obert

UNION

George Cooper  
Joanne Espinola  
Ruth Kaye  
Mary Jo Lemon  
Margaret Maria  
Ervyl Schroeder

VERNONIA

Nona Callister  
Sandra Carmiencke  
Gary Curtis  
Edward Forbes  
Sunny Huntman  
Ginger Johns  
James Johns  
Michael Taylor  
Rosemar Weidman  
Douglas Wilson

WALDPORT

Florence Boydston  
Helen Crowley  
Jerry Eisenbarth  
Carol Fisher  
Thomas Kuehlwein  
John Lewis  
George Russell  
Boyd Swent  
Marva Wickre

WARRENTON

Frankie Bergerson  
Judy Bigby  
Merilyn Dunn  
John Gustafson  
Georgana Harrison  
Rodney Hardin  
Carol Hathaway  
Fern Lee Johnson  
Betty Mosar  
Shirley Rupp  
Carlotta Strandberg  
Paul York

WASCO

Ruby Godwin  
Elisabeth Hill  
Kathleen Marx  
Carolyn Poetsch

WILLAMINA

Beverly Geil

Non-Member Schools' Institute Participants By District

CENTRAL POINT

Bill Brewster

MORO

Shirley House

CENTRAL VALLEY JR. ACADEMY, MONROE

Prince Baker

NESTUCCA

Richard Ricketts

CHENOWITH

Jean Davis  
Leona Magill  
Faye Whitesel

OROFINO, IDAHO

Susan Fish

COTTAGE GROVE

Elizabeth Kurtz

PASADENA, CALIFORNIA

Sr. Virginia Tillman

GILLIAM IED

Gordon Ruff

PAYETTE, IDAHO

Darryl Dixon  
Hugh Fulton  
Robin Green  
Marilyn Nelson  
Kathleen O'Bar

HOLY REDEEMER, PORTLAND

Sr. Magdalen Basick  
Sr. Barbara Collier  
Peggy Farrell  
Leslie Gilsdorf  
Larry Schuster

PORTLAND STATE UNIVERSITY

Paula Wade

KLAMATH COUNTY

Mary Barry  
Dea Jean Wright

ST. MARY'S ACADEMY, PORTLAND

Sr. Shawn Marie Barry  
Sr. Mary Jane Harold  
Sr. Rosemary Anne Parker  
Sr. Mollie Reavis  
Sr. Clare Roy  
Kathleen Weaver

KLAMATH FALLS

David Davis  
Neoma Wamer

THE LEARNING TREE, PORTLAND

Karen Costner

SILVERTON

Tish Antonson  
Nancy Ferris  
Eleanor Hento  
Judy Lowery

McMINNVILLE

Lorna Greehling  
Evelyn Johnson  
Peter Miller

Oregon Small Schools Program Steering Committee

Sister Eileen Brown, Principal  
Sacred Heart Academy  
3750 Lancaster Drive NE  
Salem, Oregon

Otis Murray\*, Superintendent  
Bandon School District 54  
Box 217  
Bandon, Oregon

Maurice Burchfield  
Director of General Education  
State Department of Education  
Salem, Oregon

Thomas A. Nash, Principal  
Cascade Locks Schools  
Cascade Locks, Oregon

Mrs. Lucille Dickey, Supt.-Prin.  
Marcola School District 79  
Marcola, Oregon

Bob L. Periman\*, Supt.-Prin.  
Prairie City School District 4  
Prairie City, Oregon

Robert O. Eddy, Superintendent  
Baker County IED  
2030 Auburn Avenue  
Baker, Oregon

Lyle Rilling\*, Superintendent  
Jefferson School District 14J  
P.O. Box 210  
Jefferson, Oregon

Evan Ellis, Principal  
Dufur Elementary School  
Dufur, Oregon

Dr. Bill Sampson\*  
Dean of Education  
Southern Oregon College  
Ashland, Oregon

Dr. Arthur Hearn  
Dept Educational Administration  
University of Oregon  
Eugene, Oregon

Charles Steber, Administrative Ass't.  
Klamath School District  
Courthouse Annex  
Klamath Falls, Oregon

Dr. James Kearns  
Director of Education  
Eastern Oregon College  
LaGrande, Oregon

Ferman A. Warnock\*, Supt.-Prin.  
Condon School District 25  
Condon, Oregon

\* Executive Committee Member

Institute Evaluation Summary

426 Participants. 366 Evaluations Returned.

1. I am 33 an Administrator; 3 Administrative/Secondary Teacher; 2 Administrative/Elementary Teacher. 181 an Elementary Teacher, grade \_\_\_\_\_; 123 a Secondary Teacher, subject area \_\_\_\_\_; 24 Other; please specify \_\_\_\_\_.

2. To what degree was pre-conference information adequate?  
63 Superior; 250 Adequate; 40 Needs Improvement; 13 No Rating  
 Comments:

3. Please check the appropriate rating column for each part of the workshop, indicating its value to you.

|                                    | Much | Some | Little | None |
|------------------------------------|------|------|--------|------|
| Keynote Session                    | 173  | 135  | 34     | 14   |
| Needs Assessment                   | 117  | 181  | 23     | 5    |
| Daily Input Sessions               | 149  | 71   | 18     | 1    |
| Demonstration Teaching             | 82   | 112  | 104    | 36   |
| Evening Sessions:                  |      |      |        |      |
| Legislative Action                 | 11   | 57   | 41     | 34   |
| Graduation Requirements            | 17   | 48   | 31     | 78   |
| Course Goals                       | 38   | 48   | 18     | 20   |
| PPBES in Small Schools             | 22   | 53   | 30     | 29   |
| Film Festival                      | 37   | 134  | 69     | 25   |
| Materials Library, IGSE (Lausanne) | 34   | 131  | 85     | 42   |
| Commercial Exhibits (Doney)        | 38   | 89   | 112    | 39   |
| Materials Exchange                 | 49   | 64   | 67     | 77   |
| Work with Consultants:             | 41   | 21   | 4      | 2    |
| Armistead                          | 59   | 3    | 1      |      |
| Barker                             | 78   |      |        |      |
| Butler                             | 41   |      |        |      |
| Conlon                             | 54   |      |        |      |
| Fessant                            | 4    | 1    |        |      |
| Freirich                           | 2    |      |        |      |
| Kahl                               | 45   |      |        |      |
| Mathias                            | 33   | 5    | 1      |      |
| McKillop                           | 7    |      |        | 1    |
| Ozburn                             | 1    |      |        |      |
| Pino                               | 21   | 8    |        | 1    |
| Roth                               | 33   | 4    | 1      |      |
| Sauter                             | 11   | 1    |        |      |
| Art                                | 1    |      |        |      |
| Music                              | 2    |      |        |      |
| PE                                 | 2    |      |        |      |

|                           | Much       | Some       | Little    | None      |
|---------------------------|------------|------------|-----------|-----------|
| Sharing ideas with others | <u>195</u> | <u>103</u> | <u>14</u> | <u>4</u>  |
| Social Arrangements       | <u>99</u>  | <u>102</u> | <u>30</u> | <u>16</u> |

4. To what extent has this workshop provided ideas for implementing individualized learning in your classroom/school?  
270 Much; 84 Some; 1 Little; 2 None; 9 No Rating
5. As a result of attending the workshop, do you feel more confident to write objectives and design programs to meet the special needs of your students?  
185 Much; 160 Some; 5 Little; 2 None; 14 No Rating
6. Do you feel you received resources and information necessary to carry out techniques in individualizing learning?  
207 Much; 141 Some; 7 Little; 1 None; 10 No Rating
7. In what areas do you need more assistance for individualizing learning?
- |                                |                                                                              |
|--------------------------------|------------------------------------------------------------------------------|
| PR with community              | Grouping                                                                     |
| Resources                      | Plan for implementation                                                      |
| Help in specific subject areas | Time                                                                         |
| Materials                      | Money                                                                        |
| Record keeping and reporting   | Inservice                                                                    |
| Objectives                     | Keeping kids motivated                                                       |
| Hierarchy of skills            | Support and understanding of administrators, board, and fellow staff members |
| Diagnosis                      |                                                                              |
| Aides                          |                                                                              |
| Courage/Confidence             | Contract making                                                              |
| Equipment                      | Building facilities                                                          |
|                                | Experience                                                                   |
8. How do you rate this summer institute, in general?  
182 Outstanding; 11 Very Good; 152 Good; 10 Mediocre; 11 No Rating
9. In order to make the OSSP a permanent operation, the State Department of Education is working with the OSSP Steering Committee to explore ways to assume some of the OSSP functions. Workshops and conferences will probably have to be at least partially financed by the participants. In that event, would you be willing to pay a higher rate for future summer institutes?
- 106 Yes, I would be willing to pay regular DCE rate, \$87, plus room & board.
- 71 Yes, I would be willing to pay more than this year, but do not necessarily want to take it for credit.
- 55 No, I would not want to pay more than this year's rate.
- 220 My district pays all or part of my summer institute costs.  
(98 said all of the costs, 102 said part of the costs, 20 did not specify)