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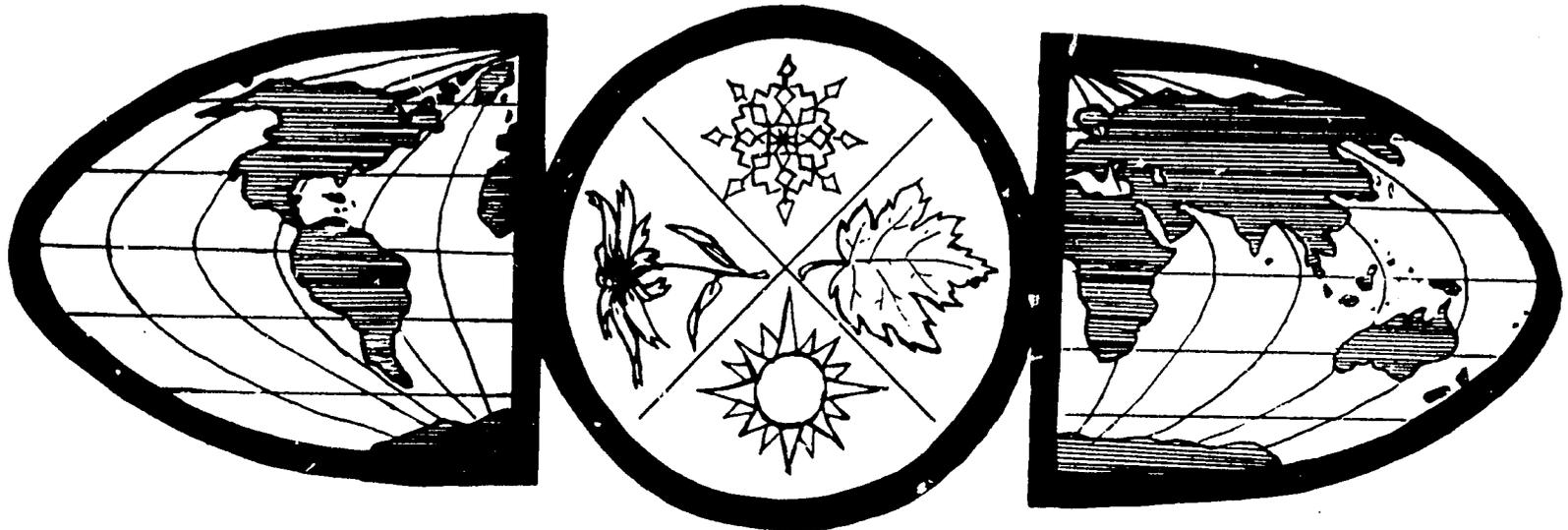
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Structures for Flexibility in the Management of Learning Systems

The 9th National Seminar on Year-Round Education



An International Seminar Conducted in English and Spanish

Presented by

National Council on Year-Round Education

and

U.S. Agency for International Development

in cooperation with

Office of Assistant Secretary for Planning and Evaluation
U.S. Department of Health, Education, and Welfare

Organization of American States

Clarion State College (PA)

Virginia Polytechnic Institute and State University

October 9-13, 1977

Washington, D.C.

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OVERVIEW OF CONFERENCE

James Singletary

The Latin American Bureau of the Agency for International Development is pleased to express its appreciation to the speakers, panel members, presenters, moderators: the educational planners, teachers, and administrators at local, regional, and national levels in the United States and nine countries (Bolivia, Brazil, Canada, Chad, Chile, Jamaica, Peru, and Venezuela) who are participating in the seminar as well as the office of Assistant Secretary for Planning and Evaluation, U.S. Department of Health, Education, and Welfare, Organization of American States, Clarion State College, and Virginia Polytechnic Institute and State University for cooperating with the National Council on Year-Round education and the Seminar Planning Committee to make the International Seminar possible.

Our major goals during the next four days are to consider various ways to manage educational delivery systems so as to optimize economic efficiency, quality of education, and the adaptability of the program to the life styles of the people and to develop criteria for the selection, adaptation, and implementation of such systems to one's own community or society.

Dwight Allen will start us off in the right direction with his stimulating analysis of *The Schools We Need - Today and Tomorrow*.

Our keynote speakers will examine the issues of how to attain flexibility needed to adapt programs in ways that assure quality education, economic efficiency, and compatibility with the life styles and living patterns of the people served in the United States, Egypt, The Caribbean, and Latin American Countries.

The four areas for in-depth consideration are:

1. Utilization of community by the school and school resources by the community.
2. Organizing learning resource centers to facilitate learning.
3. Individualizing and personalizing instruction.
4. Current and future development in year-round education.

In each case, the general session that will be in this room will be followed by concurrent sessions.

On Thursday morning, we will meet in the North Catillion Room for a culminating session to consider "Developing Criteria to Determine Feasibility of and Procedures for Adapting and Implementing Special Programs".

Here the focus will be criteria for the selection and implementation of structures for flexibility in the management of learning systems; analysis of the synergistic impact of combining sub-systems; the implications in terms of building needs and the design of an educational facility for such a learning system and highlights of the year-round education movement.

The tours are scheduled to provide effective demonstrations of many of the concepts and recommendations of the seminar.

Your active participation is encouraged throughout the next four days. We are looking to you for insight as to how the concepts of this International Seminar and its final report will be able to introduce the idea of the Year-Round School and other changes which could produce economies and flexibilities in school programs for a much broader part of the world.

THE SCHOOLS WE NEED - TODAY AND TOMORROW

Dwight W. Allen
School of Education
University of Massachusetts

Unfortunately, as Will Rogers said, "Things ain't the way they used to be and prob'ly never was." As we go one more round back to the basics, many people, I think, have forgotten that. The reason we left the basics is we didn't like where we were. We then moved off into a variety of different fads, if you will. We didn't like that either, so we always went back home to the basics. It seems to me that one of the things that must characterize the schools of tomorrow is a realization that we've been fighting not only the wrong battle, but the wrong war. It isn't the war between basics and something else. It's really how to get on with the basics in a better way; that's what it's always been about. The reason we have chosen to go in different directions in education is because the basics, as they have been defined, have become increasingly inappropriate to deal with. The basic basics in international education, the quest for global literacy, is perhaps the best case in point. This is the first time since the organization began that UNESCO did not award a literacy prize. Why? Because they said it would be mockery to award a literacy prize at a time when illiteracy in the world was growing. In the last three years alone the number of illiterates has increased by some 28 million world-wide. There are at this moment some 500 million kids of school age in developing countries who are not in school. There are only 223 million who are. So we're losing that battle. But again it's the wrong battle because literacy has been defined as the corner stone of basic education, and that corner stone has become the key through which all other education must pass. Until someone becomes literate, so the story goes, they can't learn anything. There was a study recently in Brazil where the research findings were amazing. They found that farmers who were illiterate could learn to use new agricultural methods without becoming literate. What an amazing discovery! I mean it's an amazing discovery to find out that people who cannot read and write can still learn something. We've almost come full circle. In the Middle Ages, when the printing press was just getting established, there were great arguments among scholars who were convinced that real education had to take place face-to-face. They were very, very suspicious of relying too much on the printed word. Now in the middle and end of the 20th century, we are very suspicious of learning that takes place without the written word.

We've come full circle again, perhaps, in terms of the most ultimate back to basics of all: getting back to the notion that learning is independent of all the arbitrary mechanisms that surround it. When we realize that, we will be able to go forward to the basics instead of back to the basics. Then we will want all the citizens of a society to have the tools to operate in that society, and these are very basic tools. The only problem is we are not doing a very good job today of defining those basic tools. In our society, I think, it is still reasonably correct to say that reading is the first and second and third and fourth and fifth and sixth and seventh and eighth most important basic skill. Without a working knowledge of standard English a student is condemned to being a second-rate citizen. That's the reality and anyone who doesn't face that reality as a basic is jiving himself. On the other hand it is true that much if not most of the real learning a student does is independent of the written language. As a society we're at a basic condition of paradox. In fact the route to first rate citizenship is becoming more of a formal definition than a functional one. It is quite possible as the Brazilian farmer, to learn to do all sorts of things with very, very basic and rudimentary

reading skills. Not reading at the eighth, ninth, tenth, or eleventh grade level, but reading at the fourth or fifth or sixth grade level. That notwithstanding, the prejudices of the society are such (and again they are not all prejudices) that they do not give credibility to citizens who so function.

We're caught in a dilemma. Part of that dilemma is the disfunctional nature of basic education; that it doesn't really provide what it is said to provide. The problem with college education these days is not that college education has changed. Colleges are doing the same dumb things they've been doing for a hundred years or more. It's just that those same dumb things do not have the same quality results inspite of their stupidity. It was possible to throw a degree at a student with almost any component parts and to have that degree function as a golden key. For a while, for about two decades, that golden key worked for everyone. It used to be that there was only an elite group that got college degrees, and a college degree gave you a lifetime membership in an elite group. Following World War II that elite group expanded exponentially. We opened colleges all over the place; and, as the English said, we started making all the milk into cream. It is said that you just can't do that. In a sense we did because more than one half of all the high school graduates go on to post-secondary education. That in itself is a monumental accomplishment - quite apart from whatever happened to them after they got there.

However, we still have the problem of first of all providing the opportunity and secondly, of using it. In the U.S. we have consistantly provided more opportunity than we have been able to use; but we've used more opportunity than most people have been able even to provide. At the same time we line up at the wailing wall, we should give ourselves credit for having produced an educational system that has, for the first time in the history of the world, made it possible for the comfort of one man not to depend on the discomfort of another. We live in the only society in the world where it is possible to have the highest standard of living without servants. If you want to see that in high dramatic relief you should have joined me in Africa where I would have traded in all 3 of our full-time servants for a good washing machine and lawn mower. Literally speaking it is so--full time servants are no boon to anybody. Full time machines are much better than full time servants. They provide a higher standard of life. All of you in this room live better than the medieval kings who had to have servants even to go around and light their lights in the evening. The kind of things we take for granted were big hassles not too long ago.

We need not, we must not, underestimate the accomplishments of the educational system that organizations like this come together to criticize. Again, it's not that the criticisms are not valid; it's just that we must put them in proper context. Part of our problem has been that when we were operating in, if you will, a kind of phony economy we never had to analyze things very well. As long as we were growing pell mell any warm body could get a job as a teacher. A lot of people got misled in terms of what teacher training was and in terms of how you train teachers. A lot of people got misled in terms of the role and function of school, year-round education, and a lot of other things. Because we were so busy expanding to fill this seemingly endless demand for expansion, we didn't have to look too much to the right or to the left. However, that has changed. Now we have a situation where all those colleges we developed are fully staffed. There's a sign on the door of higher education which says, "Profession closed until further notice." There are no jobs in higher education until about 1990 according to the Carnegie Commission report. There will be stray jobs in specialized fields, but no systematic employment opportunities in all of higher education until 1990. The average age of public school teachers in the next three years is expected to go up five years. That doesn't

mean that public school teachers are growing five years older in three years. It means that as we enter a period of consolidation and invoke the rule, "Last in, first out," the younger teachers' jobs come into jeopardy first. Therefore, it's anticipated that the so called average age of the profession will go up to 40 in the next three years.

All of these things that are happening are quite independent of anything we do as educators. For example, we still give all these kids a golden key. They go and try the key in the door and the key fits, but all the rooms are taken. Because of that, the colleges are getting blamed for not preparing the kids right but that's not the trouble at all. They are getting prepared the way they always have been. In fact, they're probably being prepared even a little better than they always have been, but the consequences of that are quite different than they've always been. Again, our society continues to have a genius to have that come and bite us where it hurts most. Just at the time when minorities are gaining systematic access to higher education and looking forward to the pot of gold at the end of the rainbow, we say, "Oh, guess what? Getting that college degree doesn't mean that anymore. Sorry about that. You've been chasing the wrong rainbow; the pot of gold has moved over the next hill." It's not just the minorities, of course, who are chasing that pot of gold; it's everybody.

If you look at it, every time we try to solve one of the problems of society we create another. How do you think all the young people were feeling in recent weeks when the attention of society was focused on raising the level of retirement? It's true that one of the real ills of our society is wasting the talent of the aged. Perhaps no society has treated its old people as inhumanly as we have. The Eskimos were ever more humane by putting their aged out to die, rather than putting them in "Sunshine City" where they're systematically cut off from anything and often times have a living death that's worse than death. Looking at some of the psychological studies, they're grim. A more flexible retirement age will help to solve those problems, and that's a good thing to do. However, it also creates further pressure on the job market, making it even more difficult for young people to enter that job market. It's these unintended consequences that keep getting at us that we don't understand. I'm no real fan of Consolidated Edison; but I kind of feel sorry for old Consolidated Edison in New York when 40 or 50 years ago, for all the good corporate reasons, they tried to plan ahead and purchased alternative sights for production of power. They purchased some sights for coal-generated power, and some sights for atomic power. They then sat back and congratulated themselves for being so forward thinking. When the expanded need for power came as they predicted it would, they wanted to build some coal plants; but the environmentalists came along and said, "No, no, no, you can't do that."

"All right, then we'll build some hydroelectric plants."

"No, no, no, you can't do that. You'll pollute the streams and interfere with the fish life."

"All right, then we'll build a nuclear plant."

"No, no, no, if you do that you'll produce radiation risk and some ecological changes in water temperature and some other changes that we're just not prepared to deal with."

"But we need more power. What can we do?"

The only thing they could do was to buy it from Canada on something called the grid. The familiar results of this are the power outages and, more importantly, a large increase in cost. When it became more expensive the small users started using less. When the small consumer used less, the overhead went up; and the company had to charge more. That meant the people had to use even less, and the company had to charge even more. What had happened was, while looking at the environ-

mental problems one at a time - no, no, no to water pollution; no, no, no to air pollution; no, no, no to radiation hazards - no one ever asked the big question. How do we deal with the overall problem of the needs of power generation for the society and pick the one that will solve most of the problems in the best way? That is the way to approach a reasonable solution, rather than allow each flawed solution to be knocked down one at a time and leave us nowhere.

That's what's happening in education. Each innovation in education has been knocked down one at a time because it's flawed. No one ever asked, "Okay, how do you put that all together to solve some of the major problems of society which are reflected in illnesses or inadequacies in education? In fact, one of the things in which our more tradition-minded friends took great delight was sicking the innovators on each other. Also, of course, our society is set-up in such a way that that which is there doesn't have to be defended; but that which replaces it does have to be defended. Whatever is there and inadequate can stay there and be inadequate without much risk. You don't have to justify the fact that you're wasting a lot of space if you don't have a year-round school; you have to build the argument as to why a year-round school is desirable. If the agricultural patterns of the U.S. had been slightly different, it could have been the other way around. You would have had to justify a 180 day school year instead of a 270 day school year. Whichever way is there, whichever way is the traditional way, sits there virtually immune to the process of analysis. One of the reasons that innovations continue to have a difficult time is since we were never able to prove what we were doing before, it's very difficult to prove that what we're proposing to do is any better. Before you're able to prove that the innovation would serve better, you have to prove what the existing system is doing, which nobody has been able to do. We're caught in this precious never ending circle of the need for proof, the need of analysis, the need to provide a way to find a new synthesis for education that can give us some insights into schools of tomorrow. I would maintain that most of the elements are all ready there. They are there because we have spent two decades in assembling them and investigating them. The elements are there in terms of looking at alternative ways to use staff, alternative ways to use space and time, alternative organizational structures, and alternative curriculum elements. They are all there; that is the stuff of which education is made. What is needed is a new way to put them together, a new way to conceptualize them and to do that in such a way that does not require entry into the never ending circle of proof which becomes a certain dead-end.

One of the first things we need to do, for example, is have a forthright look at what the basics really are. We must recognize that there is no logical reason why 30 % of the students in many junior high schools cannot read adequately. That is not reasonable that is not necessary, that is not anything which this society has to put up with. Since reading, whatever the philosophical argument about it, is in fact the starting point for first-class citizenship, it becomes a monumental indication of the stupidity in our school systems that we allow that unsatisfactory circumstance to continue. It's only been about 10 years that remedial reading teachers have been in the junior high. Reading used to be entirely the preserve of the primary school. Now in the junior high we think we're doing great things when we have one or two remedial reading teachers inside. Since one of the major curriculum elements about which we agree is reading and 30% of the kids in junior high can't read adequately, I would maintain that if we were right headed one of the things which would characterize our schools would be that at least 30% of the teachers in junior high would have as their major responsibility teaching kids how to read. That doesn't mean that they would all be sitting around in reading classes all day. It means that whatever is done in that school has to have as its focus: "Does this enhance the ability of this kid to read?" Putting it another way, it

seems to me that the junior high principal ought to be able to give certification at the time of each student's graduation either that student is reading within one grade level of where they are (namely if it's a ninth grade junior high, they're reading at the eighth grade level or above) or the principal certified that the kid cannot be taught to read at that level. Notice the way I am shifting the burden of proof. Historically it has been assumed that if the kid learns the school is good and if the kid doesn't learn the kid is bad. I want to have someone take the responsibility for not learning the tasks we all agree are terribly crucial for him to learn.

That responsibility and accountability isn't a matter of writing endless objectives. In fact one of the fallouts of the behavioral objective movement (of which I was a part) was that we wrote so many behavioral objectives that they all got lost. I sometimes think that the people who made all those little boxes to check off and those who check them off deserve each other. It's not that I'm against behavioral objectives; it's just that you can become so enthusiastic about them that you lose all perspective about where they fit into some things about which you cannot write behavioral objectives very well. It seems to me that we have to question what is the best way to go about which aspect of education.

The basic skill which is easiest to deal with is reading. We have very straight-forward criteria about when a kid reads and when he doesn't read, and we have lots of different methods to go about teaching him to read. Considering the ways that are available and the ways we access kids to those ways, I think we ought to have our profession examined. In the very avante-gaurde school each school is allowed to determine its own reading curriculum. The Elm Street School is Sullivan Thin Pin and Charter Oak School is Lippincott Phonics all the way. That seems very nice because we know that when teachers teach a curriculum that is sort of a visceral thing with them, they do better than if they teach a curriculum that is imposed on their heads. That's standard curriculum wisdom. So here are these teachers over here being very visceral about Sullivan Thin Pin and here are some visceral teachers with Lippincott Phonics. All is well until you stop to think that of all the ways to figure out how Johnny should learn to read, which side of the street he lives on probably isn't the best. On this side of the street he's a Sullivan Thin Pin kid, and on that side of the street he's Lippincott Phonics all the way. It seems to me as you look at the research on reading the one thing that is demonstrated is if you pay attention to reading, reading will improve. Maybe hidden behind that sort of cover result is something having to do with individualization, which is one of the topics of this conference. Namely, maybe some kids learn better with Lippencott Phonics and some of the kids learn better with Sullivan Thin Pin; or maybe if we got really sophisticated we'd say we shouldn't give up on teaching kids to read until we had exposed them to all the different reading methods we know about. Probably 70% of the kids are going to learn to read inspite of anything we do, but for those other 30%, it becomes very important to go through the whole routine of all the different things we know so that at the end of the time we either certify that kid is doing it or we certify that we've done everything we can. Right now we certify nothing. We haphazardly decide, by whatever is the mood at the moment or whatever was the vote of 5 to 4, what is the text book or what is the reading method. That's what the kid gets, and if he doesn't get it by that he's out of luck. That seems to me irresponsible; and that's the reason, in my judgement, why there's so much pressure on back to the basics.

It's not that the public has analyzed it very well in terms of what's going on; they just have analyzed very well that they don't think there's any reason 30% of the kids shouldn't read.

We, as educators, ought to take the responsibility to provide kids with all the weaponry we have until they learn or until we have run out of weaponry. When we don't do that the public has a right to be unhappy with us. To that extent, we need to go back to the basics. If we were really sensible about it we would soon find out and the public would soon find out that all this "back to the basics" we're talking about was, for 70% of the kids, meaningless. They are already there and never left. There's 70% of the kids for whom basics is not an issue; they read and write and count and do all the things that would be in any basics program. By allowing the other 30% to clog up the works because we as professionals don't focus on that 30% in a sensible way, we are depressing the educational potential for the other 70% for whom the basics are already working. I think that's a significant point. We as a profession ought to have enough confidence to say, "We are not going to make the list of basics as long as our arm because that's another way we've diluted things." We've made reading one of a list of 14 or 15 or 17 basics that go all the way from "living your life" on down. Teachers don't have any focus in terms of what we mean by the basics. If you make the list a lot shorter and with a lot more punch and give a lot more hierarchy to the list, then you're coinciding with the concerns of society, because they are still at the 3R level of reading, 'riting, and 'rithmetic. Then if you get that concern dealt with in an unambiguous way, for 70% of the kids you can go on and be as high flying as you want, with the blessing of society.

Notice there are other kinds of pendulums swinging and colliding in education. There is the pendulum for special children. Children of special needs - you give a little more to the handicapped, a little more to the vocational, and pretty soon someone comes up and says, "Hey, my kid is gifted. My gifted kid is a kid of special need." So you have another program and eventually we may discover the basic truth that every kid is special. If we had really believed that and acted on the knowledge that every kid is special! We sort of batch things out 30 at a time. Every kid is special; but society has a right to expect certain things of all those kids, regardless of how special they are. Let me give you a specific example. If the little bi-lingual kid, who is classified as mentally retarded because he doesn't speak standard English, is allotted \$10,000 a year for his remediation in grades 1, 2, and 3, he might have a shot at the free \$10,000 a year programs we provide medical doctors who come out at the other end of public expense. When we talk about equal access to public education these days, what we're really talking about is almost like a prison term - everybody has 12 years. That equal access in terms of time is not equal access in terms of resources. Look at the Cirano cases and the cases that point out the inequity in resources. There is not any presumption about any kind of equity in terms of learning level either. We need to go from that equity and parity in time to an equity and parity in resources to an equity and parity in terms of learning level. We'd not be that far away from equity and parity in learning level if we were to focus on that, if we were really to try to see the ways in which kids could reach their own potential.

We have to recognize in very fundamental ways that we all are different and that those differences are a source of distinction, not a source of prejudice, or illbeing, or apology. Some people can run faster and some people can think faster and think differently and run differently and be interested in different things. Somehow we have to find a way to enhance that positive aspect of human differences without coming around and hitting people in terms of some negative ways. We haven't even looked at that. We have done a lot of pretending in terms of not even recognizing those differences at the same time we put individualizing instruction on the national program.

We also talk a lot about involving the community. That's another one of the topics of this conference: how do you get the community involved in education? The fact of the matter is educators don't want the communities involved. If we had our own ways we'd like the community to be as far away as possible from the schools. The most embarrassing thing that could happen would be for some member of the community to come pushing up a wheelbarrow of 300 volunteers to teach things in that school. The school would say, "Help! We don't know how to handle that." The teachers would be threatened; the administrators would be threatened. Everybody would be absolutely immobilized at the thought of these 300 community people running around doing things in the school. It doesn't fit the scheduling; it doesn't fit the curriculum. It's just impossible to deal with. Therefore, we give lip service to community involvement because it's a good thing to do; but we've never really looked at the ways in which we could get the community involved if they were willing, which they are. The point is if the school is the concern of the total community, then the school has to start acting differently. We have to start giving teacher, students, and administrators a premium and reward system for getting out in the community and using different kinds of community resources. The resources are there and they're waiting to be used, but we're not flexible enough to start using them. That's the name of the conference - flexibility; but don't believe that just because that's on the program that that's really the agenda.

I also noticed that you talk about learning resource centers. I guess I'm about as much in favor of learning resource centers as anybody. I just don't know what they are. I know what I would like them to be. I can dream with you as much image about learning resource centers as most. I've been doing it for twenty years - plain and fancy; but I don't know what they really are in terms of what role they are expected to play in the education of kids which we've not yet defined. Until we can do a better job of defining what we're up to we're not going to do a very good job of providing resources for accomplishing that. I think we have to spend a lot more time defining what we're doing and trying to do - not in terms of behavioral objectives, but in the outlines of what society is requiring and requesting of the schools and what the schools are prepared to deliver.

Let me give a couple examples. (I have problems here rather than answers. I'm not giving any panaceas; I'm trying to cast the issues as I see them.) A lot of what we do at schools is because that is where a lot of kids are taught at the same time. One of the year-round schedules doesn't work because the schools, in fact, are baby sitting services. Maybe year-round education ought to figure out how to babysit for the kids when they're not in school. I haven't seen that on your agenda. I've looked in the booklet (Year-Round Education in the United States Fifth Annual Survey) at all the stated reasons for discontinuation of those year-round programs which had been discontinued. I didn't think people had been very honest about that. I think that mostly the reason has to do with the fact that year-round schools just knock everybody's schedule into a cocked hat because they violate the conventional expectations of scheduling. It's that simple. I think that's the real reason year-round schools have such trouble. I think that year-round schools have great promise. Not, unfortunately, because of anything we're apt to do; but because of the interphase with new work patterns in the society.

Your leader, Dr. McLain, I notice, has been looking at issues of different work week patterns, for example. I think this is very promising to interface work week patterns with school patterns. One of the things that seemed rather interesting to me was that among the options (there are a rich variety of options) posed there wasn't a single option that was even looking at ways in which a 3 day school week might be meshed with a 3 day work week or a 4 day school week meshed

with a four day work week. It seems very ironic that we have people noticing all the scheduling jagged edges, and the very people in the year-round school movement who are perceptive enough to see the social context of scheduling haven't put that together to see that one of the scheduling arrangements we should be talking about is the 3 day week for school or 4 day week for school. One of the problems with the 3 or 4 day school week, of course, is, if you really get down to the nitty gritty of it, most families aren't strong enough to deal with each other for 3 or 4 days a week. If I'm right about that (and I think I am since most families today aren't strong enough to deal with each other even 2 days a week) they are going to have problems unless the school takes on another one of those functions of life-long learning, where somehow we can define educational activities that involve family units. It seems to me that the whole notion of age graded schooling is one of the most destructive notions around.

As I've been dealing with U.S. AID I'm proposing that the alternative to literacy is radio education. Radio education is cheap and accessible; and people can start learning right away without having to go through all that literacy jazz. It is now possible to broadcast directly to handheld radios from satellites. The whole thing can be done very, very cheaply if it's done on a large scale. Taking a lesson from that and the things we were looking at in terms of possible curriculum, we could probably teach everything in primary education in 3 levels - a beginning level, an intermediate level, and an advanced level. That's as much discrimination as you would need; we probably don't need levels 1, 2, 3, 4, 5, 6, jack, queen, king. We would just need beginning, intermediate and advanced primary levels, and then a whole lot of specific presentations on a variety of levels for adults. I would like to think of adults starting at about age 15. One of the problems we have is that we have invented in this society to make 35 year olds feel like adolescents, for example, as interns and residents in medical school. This is a form of disguising unemployment. As one of the papers in the packet of materials you got at registration points out, more education isn't always motivated by wanting to have more learning; it's motivated by wanting to keep people off the job market.

If we really want to start looking at it, one of the things we should consider is why, as educators, we convince kids that they are preparing for life. I think we ought to spend our time convincing them that they are living. We ought to construct schools for today and tomorrow where their lives mean something now - not that they're getting ready for something later; and that means we probably ought to look at some options of social service. These are the principles around which I think we should construct specific educational proposals. Almost none of these ideas are new. The only thing that possibly could be new is building the context in which to cast them, and that is new. I think that that context is within our grasp if we would but work at it a little bit more. I tend to be an insufferable optimist; I don't think we're checkmated or going down the drain or anything like that. I think that if you discontinued formal education today they'd reinvent it tomorrow.

One of my radical "non-school" friends came to Lashutu. He was talking about getting back to the basics, and instead of using high technology they should be building foot paths and bridges and be more self-contained and not have all the corrupt western influence. At that time there was a big flood in the country. The Director of Planning in government raised his hand and said, "You know there's a flood in the country and some people in the mountains are starving. The only way we can get food to them is by helicopter. Would you recommend that we not send food to them by helicopter because that would corrupt us inexorably with this western technology?"

He said, "Absolutely. It's a short term-loss, but a long-term gain."
"You mean to say you'd let those people starve when we have helicopters that could take them food?"

"Yes."

"Well, I don't want to listen to you anymore."

We get **ourselves** into silly kinds of arguments in terms of trying to make a big point that is very important to us. (This man, incidently, got there by jet airplane.)

People get very sick and tired of hearing others say, "Technology is for other people, but not for you." Everyone in the world wants to have advantages of technology without having the accouterments that come along with it - without all the strings attached in terms of all the power struggles of the world and in terms of unanticipated consequences of having technologies that when they get used, they get used in bad ways that produce bad results. The automobile is a marvelous invention, but one of the things it does in our society is give every 16 year old kid anonymity. In the "good old days," a 16 year old kid could never get out from under the spying eyes of an adult who knew him. These days, within 5 minutes you're out and gone and anonymous. Anonymity has a very different control effect on your behavior, and it's not good. But we've never dealt with that problem. We grow the technologies, but we never accept the responsibility of looking at thoses responsibilities in a systematic way.

I've gone on a lot longer than I thought I would, but before I stop I would like to simply say that I propose a curriculum structure for this new venture in education of which I have been sketching the images. I think that we need to get back to another kind of basics that we've been playing with for a long time. That's something called interdisciplinary learning. I propose something I call Human heritage curriculum. In this human heritage curriculum we'd have 5 basic components which everybody ought to deal with.

The first component is living skills - life skills. The list includes reading, writing, and arithmetic, which are made in bold letters. They are the first 15 items on the list; all these life skills are not even. But then it goes on to a very long list of things. For example, I don't think any kid ought to graduate from high school without being able to load a washing machine. I don't want to have a course on loading a washing machine. I don't necessarily think that people have to take a course in Home Economics in order to learn how to load a washing machine, but I do think it's reasonable for every kid to learn how. It's not a big deal. It's easily done, and it's one of a list of maybe 500 or 1000 things which you sort of check out with kids to make sure they know how to do - change a tire, put on a first aid bandage, know what the basic medicines are that a kid has to deal with. I think we can come up with a list of these life skills that are easy to come up with and easy to deal with.

Secondly, I would like to teach human heritage itself; only this human heritage is a history of the past and a history of the future. A very interesting study done by one of my doctoral candidates last year demonstrated that there is a high correlation among both urban and suburban kids - the urban kids were Black - between an orientation to the future and positive self-concept. In other words, one of the things that drags kids down most is the fact that they feel like they can't influence anything that life is beyond them. If they can understand that there are alternative futures and that they can somehow interact with alternative futures, it seems to me reasonable that they would improve their self-concept. (The study was a correlational study - not a causal study.) It just said if you have a high self-concept you also have an orientation to the future, it didn't say one produced the other. We are now mounting research to see if an orientation

to the future will raise a person's self-concept.) So in my human heritage part I want to have a strong orientation to the future; but I also want to teach the past in a very biased way. I think one of the big problems we've had in teaching history is the fact that we've had this pseudo-quest for objectivity. First of all, I don't think we can be objective; and second of all, I don't think we ought to want to. We used to think of history as the history of heroes, then we used to think of history as the history of problem solvers, and more recently it's become more popular to teach history as bunkum. (In order to be "real" you have to discover about Thomas Jefferson's mistresses.) I don't believe that. I think we ought to teach kids a biased history that is the celebration of the nobility of mankind. If you put it another way, I'd like to have it about 70% nobility, maybe 20% problems, and 10% bunkum. Enough bunkum that is honest. I don't want to hide from kids that there's a lot of bunkum around; I don't want to hide from the kids that there are a lot of problems around. But I want kids to see that man has succeeded in all time and places; and under all circumstances - economic, social, political - the genius of man to survive and excell and to be oriented to a larger purpose has somehow come through. It's a bias I'd like to preserve.

The third area is culture and communication. I would like kids to get a perspective that their culture is not the culture but a culture. I want them to learn when yes means "yes" and when yes means "no" and when yes means "maybe" and when yes means "I don't know" and when yes means "I'm not going to tell you yet." It can mean all those things depending upon the culture and depending upon the relationship of the individuals. I want them to learn as I didn't. I learned when we studied "Houses Around the World" that in the Philippines they had funny little houses up on sticks. I didn't learn that in the Philippines it is a very sensible thing to do. It keeps the bugs out, it provides a little air conditioning, it keeps the building away from rot. It is very sensible to put houses up on sticks in the Philippines; but we didn't learn that. We were just learning about the curiosity of funny little houses up on sticks. Learning that there are different ways to solve problems in different parts of the world that have integrity in terms of the different cultures of the world is a very important thing. Also, we must learn that in order to communicate with each other we have to believe in the integrity of the other and find some new common denominators of communication.

The fourth area is technology. Here I want everybody to be literate in terms of the technological world. I don't want people to have to be buffaloes by all the technology and view it as a great mystery. I want people to understand that technology is under the control of man; and if the technology gets fouled up it's not because the technology fouled up, but because we fouled up. You hear people say, "The computer fouled up my telephone bill." That's just about life saying, "My typewriter typed you a bad letter last night." Somehow we have to find a way around that attitude so that we make everybody feel comfortable with technology rather than buffaloes by it, and that's an interdisciplinary endeavor.

The fifth component is leadership. Here I want kids to understand the institutions of society and their relationships to those institutions. This is not a study of institutions from the institutional point of view. This is the study of an institution from the personal view of the individuals who deal with them. Look at the crisis of credibility of the institutions of society. The average person in this society doesn't like any of the institutions with which he has to deal. Even ~~medicine~~ medicine isn't liked any more, and that was the bastion of confidence all along. I think we have to help kids understand their relationships with the institutions of society and, as another part of that, their interpersonal relationships - to institutions and relationships to other people.

Those are the five basic areas I'd include in the curriculum: life skills, human heritage, culture and communication, technology, and leadership. It seems to me that that's a pretty good core curriculum. That core curriculum, if organized properly and catering to the individual differences and accepting the responsibility of the basics, could provide the context about which communities could have constructive debate concerning the shape of schools for today and tomorrow.

The Need For Flexibility To Adapt To Change

Ed Pino

Dr. Ed Pino examined the educational objectives as they exist in schools today and emphasized the need for greater flexibility in the total program in order to adapt to the changing educational needs of our society.

We are living in a rapidly changing, technologically advancing society and world, with resultant changes in both educational needs and expectations. If our schools are going to deal effectively with these changing needs and expectations, educators must become sensitive to these changes. They must become aware of what the people being served by the school really want, need, and expect. They must learn how to adapt the educational programs accordingly.

It may be said that in a slowly changing society, a child may simply memorize the "proper" answers to many of the issues and problems they will face in their lifetime but that certainly is not true in the rapidly changing world of today.

Our present education system has emerged as our society advanced technologically from a predominately manual labor production system to mass production based on human operated assembly line techniques to a sophisticated system of cypernation with automatic self-adjusting machines that are directed by computers based on data automatically fed into the computers from sensors on the machines.

Our present education system has emerged as our society advanced from the era of human bondage for many, through the rise and organization of the working class demanding fair treatment, to the era of seeking equality in human rights.

Our schools reflect their heritage of the past and generally can be classified into three models:

1. The Jail Model - where students actions and behavior are severely regulated, much like they were in jail.
2. The Factory Model - with students being processed on the assembly line in a mass production system that has become too large to manage adequately.
3. The Warehouse Model - with the curriculum neatly compartmentalized, labeled, and placed on the shelves and issued by prescription.

In today's world, in our society, with the changing way of life there are some important educational objectives that must not be overlooked:

1. How to choose. Our society of the past provided a limited number of choices, and in many situations, no choices. For example, Henry Ford said the people could have any color of Model T Ford they wanted, so long as they wanted black. That was the state of the art. Now there are an almost unlimited number of options in color of cars. So it is with all of life. There are many options in terms of consumer products, in terms of occupations, in terms of places to live and to go, in terms of life styles. We are living in an era of options. Little, if any, attention has been given by our schools or any other agency of our society to help people make choices on a rational basis. At the same time, however, mass media advertising has put great effort into directing and controlling the selection processes to further the vested interests of a selected few.

2. How to relate. In the era of yesteryear, the average person had little contact with people from outside his own community, and the number of different types of situations to which he had to relate was quite limited. The way of life today is affluence. People move from place to place. They constantly come in contact with new people in new situations. The school needs to help people learn how to deal with this ever increasing need to relate and adjust to new situations.

3. How to learn. Much of traditional educational programs of the schools are based on rote memorization and assign-study-recite techniques. This may have been appropriate in an era when changes in the way of life were very slow. If a child were to face the same problems or issues as an adult as his parents, then perhaps he can be taught in advance what the answers are. But in a rapidly changing society such as ours today, with an explosion of knowledge and a constant change in the human situation, we do not even know the questions the adults of tomorrow will face much less the answer. To deal with this situation, the schools must help people learn how to learn, how to solve problems, how to find needed information, and how to apply these techniques to problems as they arise.

4. How to produce. In the past, during the industrial era of mass production, most jobs in factories required no formal training. A person could learn the job adequately with only a few minutes to a few days on-the-job training. Automation, computers, and other technologies are changing this. The repetitive jobs previously done by human labor are being done by machines. New jobs are being created at the same time but they generally require a higher level of skills and competencies. In turn, the school will have to provide the needed training to help people learn to earn a living.

5. How to create. As machines do the work previously done by humans, the average amount of time spent earning a living is reduced in the form of a shorter work day, work week, work year, and the number of years worked in a lifetime. The average person today has more leisure time than he knows what to do with. People must learn how to use their time creatively and in self-satisfying ways.

6. How to value. As the way of life changes, value systems also change. In this era of uncertainty and change, it is difficult for a society to transmit its value systems from one generation to the next.

As our schools attempt to undertake this ever-widening range of responsibilities on a mass education basis, there is a danger of attempting so much that nothing is done well.

There are three critical movements that should be focused on by the schools. First, educators should go back to the basics of education and be accountable for the education they provide. Emphasis must be on what the parents want and believe are needed for their children. Secondly, the basic goal must be to educate all children, not just the "average" but the gifted and the "reluctant learners" as well. Third, the rising expectations of the people must be met. When the basic goal of educating all children based on the expectations of the people, then quality education will result.

As a basic approach to improving the present education system, Pino suggested the following:

1. Use a "process approach" in educational planning. Focus on the anticipated educational needs of people in the year 2000 and backward to the present. Use a zero base approach, questioning the validity of all the present curriculum in terms of actual needs, and throw out that part which is not justified in terms of need.
2. Focus on the human condition, not just the institution itself. Think of planning for a 24 hour day and year-round education.
3. Orchestrate and synthesize the movement of options - the alternative strategies in education, community involvement in education, and competency based education.

Education In Egypt

Ibrahim Shafie

Dr. Shafie began his presentation with an **overview** of the structure of the Egyptian education system:

Pre-school education, for children ages 4 and 5, is still classed as a social service and provided mainly by the private sector. It is therefore not included in the education system.

The formal education system covers three levels - primary, secondary, and higher education.

Primary level is for children 6-12 years of age and includes grades 1 through 6. It is free and compulsory.

Secondary level is divided into two stages; lower stage and higher stage. The lower stage, or preparatory school is for pupils between 12 and 15 years of age, and includes grades 7 through 9. It is free but not compulsory. The higher stage is divided into general secondary schools, which is a three year school, for pupils 15 to 18 years of age, and leads to University level fields of study; technical secondary schools for skilled workers, includes three years for pupils 15 to 18; five year technical schools for technicians, includes five years for pupils 15 to 20, and teacher training schools, for primary teachers, includes five years for pupils 15 to 20 years of age.

The law of technical education, issued in December, 1970, gives the right to the graduate of the three-year technical secondary school to continue to study in order to reach the standard of technician, and the five-year school graduate may continue his study in university programs according to certain conditions. All secondary level schools are free but not compulsory.

The higher education level is provided in universities and higher technical institutes. University is also free, but not compulsory.

The government supervises all educational institutions, whether government or private.

Until this past year responsibility for education has been divided between different authorities. The Ministry of Education was responsible for the first and second levels, teacher training of the first level teachers, and the eradication of illiteracy. The Ministry of Higher Education covers the universities, which are autonomous and the higher institutes. These responsibilities, however, have recently been combined under the Ministry of Education to facilitate coordination of the total education system. Certain other ministries participate in the financing and administering a number of educational institutes.

The Arab Republic of Egypt (A.R.E.) has 38 million inhabitants with an annual increase of 2.3 percent. The school population is more than 7 million pupils. We have 10,000 primary schools, 1,820 lower secondary schools, 450 general secondary schools, 350 technical secondary schools, 65 teacher training institutes, and 14 universities.

During the past two decades the enrollment at all levels has more than doubled. The greatest growth has been in the technical secondary schools which are relatively costly to meet the manpower requirements in different social and economic fields. As a result of this rapid growth, A.R.E., like other Arab countries, is facing many well-known educational problems, including the following:

- deficiency in school premises
- high pupil/teacher ratio
- slow increases in educational expenditures as compared with high student population growth
- continued increase in the percentage of double sessions in primary education
- continued increase in the average salary per teacher at all levels.

I shall not try to give solutions to these problems. Instead, I am looking for innovations and new ideas which will be discussed at this seminar to help overcome some of these problems.

In the meantime, the following efforts are being carried out in Egypt:

1. Basic education which extends over nine years for children, from 6 to 15 years of age, has been introduced to cover both the primary education and the first stage of secondary, extending compulsory education to age 15 instead of 12 for students attending these schools. A total of 150 primary schools have been transferred to this new system which is also associated

with major curriculum development, methods of teaching and scheduling, or time-tabling of teaching periods. Care has been stressed on introducing simple pre-vocational training and practical subjects (which we consider basic education) to help the pupil interact with life.

2. Another experiment that we call "integrated care project for primary school children" will be implemented in two schools, one in a highly populated urban district and the other in a rural area. The project aims at:

a. raising the standard of primary school in densely populated districts where children are badly in need of assistance by providing these pupils with social, health, educational, and cultural care.

b. making the school a center to serve the community and to help the people see the interdependence between the school and the home in bringing up the children.

c. creating the feeling of belonging and love between the pupils and their school through developing activities that promote community self-help which promotes in the pupils the feeling of belonging to their country.

d. understanding and evaluating the school and home conditions that immediately affect the children's activities and especially encouraging the cooperation of parents and community members in the healthy growth of the children through holding regular meetings with them at school to discuss child care, as well as methods of hygiene and family planning.

e. providing human and material resources for greater effectiveness of schools.

This project serves as a pilot experiment which could materialize in a practicable way that can be easily followed in other schools.

Innovative Programs in Latin America

Mariano E. Gowland

This speech was based on the Multinational Technical Education which was the result of an Applied Seminary to Technical Education in 1973. Two years later, based on UNESCO document entitled "Learning to be", a special work was begun called Educational City. The OAS jointly with the Educational Foundation for Labor of Minas Gerais and the Ministry of Education and Culture of Brazil put together all their efforts to initiate this project with the premise that education is a national enterprise which includes the active participation of all the components of any given community. Itabira and Itaúna were chosen for the project after carefully studying the main characteristics of 151 municipalities.

The main objective of the project was to develop the mobilization and integration of programs of community resources destined to achieve educational actions in all respects and levels of the educational system in the country.

The principal focus of this project became the reciprocal use of all resources between the school and the community. The principle concentration of the project was on preschool education which needed particular attention, especially in the marginal classes. In order to achieve our goals we collaborated with the local authorities in creating different committees, training of parents, meetings, and assistance to the instructors in different fields of endeavor.

Regarding our endeavor, all the active forces of the community were mobilized and coordinated according to their proper nature and condition in order to obtain the greatest benefit in regards to educational, scientific, cultural, and social activities of the community. There was also a close-knit relationship between the state government and the municipalities. Committees dealing with hygiene, nutrition, and educational purposes were established in order to awaken the interest of parents, children, and other components of the society so they could actively participate in the whole educational process.

The community being educated was composed of penniless people. It was emphasized that each one of the members of the community had and could contribute time and effort to the whole program. It is worthwhile mentioning that even though the project was not affected by politics, the people learned to speak and express themselves in public meetings. Of the two communities, Itabira was the most developed with a large middle class while Itaúna had a bigger itinerant mining population. Nevertheless, in both cases, the project initiated a set of social forces with a great impact through a conscientious effort of the parents which resulted in a better understanding and communication between the children and themselves.

It is very interesting to notice the incredible and favorable changes throughout the "barrios". The educational betterment served as an incentive to improve the physical aspects of the whole community. But the most effective result of this experience is that the state, recognizing its value, has officially established preschool education. Due to the success of this project and the interest it has created, it is feasible that it may be extended to other communities in the state.

As it can be seen, the project mentioned above constitutes an exercise in community education and involvement at a local level, in a limited zone or as in this case, in two specific communities. At the same time, the OAS, through its international structure, has focused on community development through education not only to a limited zone, but to bigger areas which can be considered as social and geographic as well as demographic sub-regions which cover frontier zones - for example, among countries like Argentina, Bolivia, and Chile. This project was created in 1973 due to the isolation of these communities far away from the central power and culture and the result of cultural, social, and economic disintegration in the general zone, especially, in the communities.

With this in mind, therefore, the project was designed to improve the total community level of knowledge and originate, within the framework of its operations, the most fundamental phases needed to create or improve an educational system of positive advantage to the community. Within this framework, for example, were included structure patterns, coordination and organization, planning and research, activities derived from standard education and educational technology, group assignments, agricultural and cattle-raising aid, labor capabilities and professional development, sanitary education, nutrition and nourishment, physical education, recreation, and sports.

In every one of these operations, the most basic concepts were discussed and implemented among the groups involved. The project is still functioning and there is still a lot to accomplish regarding the importance and the potential benefit to increase the educational, cultural, and social improvement among these far away frontiers.

In comparison, one can see the difference in projects between the communities of Itabira and Itaúna and the frontier zones of the countries already mentioned. One must bear in mind the methodology of the municipal development against the frontier one and the application of all the concepts involved in the flexibility of school systems.

Regarding the topic of the 12 months school year with all its modifications, a study was done in 1974 through the OAS Regional Program and Educational Development in Costa Rica concerning the reduction in cost in the educational system in Latin America. Among the factors to reduce the cost in education were double sessions (morning and afternoon), consolidation, classes during the whole year, students' work and volunteers in educational activities, regional cooperation, and the use of certain factors of better cost. By building a school for 500 students in which they could attend the morning or afternoon sessions and dividing the student body in three different groups, operating all year as scheduled below, the school could house a total of 1500 students.

	School	Vacation	School	Vacation
Group I	Jan. to April	May to June	July to Oct.	Nov. to Dec.
Group II	Mar. to June	July to Aug.	Sept. to Dec.	Jan. to Feb.
Group III	May to Aug.	Sept. to Oct.	Nov. to Feb.	Mar. to Apr.

The preceding organization allows that three different groups work in the same building with an increase of 50% in building capacity without resorting to the evening session.

Other advantages are the following:

1. Increases the rate of use of the school building.
2. Decreases the basic costs of buildings.
3. Increases the use of furniture and equipment.
4. Allows teaching at different periods during the year.
5. **Can contribute to a better system of transportation in the cities.**
6. Can become a price moderator and improve the efficiency of tourist facilities, when there is no great demand of services during a determined time of year.
7. In countries where expedients are large, graduation at different dates facilitates the work of administrative offices without resorting to extra personnel.
8. May facilitate the modernization of the urban network with the integration of the different levels of teaching.
9. The possibility exists that the students who are failing may achieve some kind of recovery in some of the vacation time or may attend the same study with another group which begins on another date.

There are some advantages regarding cost but in certain cases the Indian cultures have encountered the rigidity of the class schedule which impinges in their whole way of life. The schedule of vacation is another problem, especially when the school is the only consolidated element in the community. The ideal situation, in many cases, is to maintain an open school during the vacation period in order to enrich the students lives, especially in marginal zones where there are no organized recreational facilities.

In conclusion, we should realize that a heterogenous calendar within a particular school system is one thing and another is true flexibility which allows the alteration of those calendars and schedules when the need requires it. The former implies to be subjected to a uniform system which should adapt itself to criteria outside the school system. The latter implies to respond directly to the necessity and to the variable **circumstances** of a certain locality. This is a task which nearly implies decisions at the individual level and because of it, it is so more authentic and difficult to achieve within a world which tends toward uniformity, trying to escape from chaos. But let us remember that the opposite of chaos is not uniformity. The opposite of chaos is order, and that order implies harmony, and harmony implies differences. This is, therefore, the maximum challenge that any new idea for school systems must face in the future - flexibility to adapt to need in order to attain and maintain harmony and order.

UTILIZATION OF COMMUNITY RESOURCES BY THE SCHOOL
AND SCHOOL RESOURCES BY THE COMMUNITY

Project 81 - The Call For Community Involvement

Judy Zanglein*

In twelve model school districts in Pennsylvania's Project 81, everyone now is being asked the question, "How should we prepare our children for their adult world?" The heart of the project is involvement -- involvement of everyone with a vital interest in education -- parents, educators, students, employers, workers, in fact, people from all walks of life, from school districts of different sizes and locations. All these people are being asked, from their own experiences, to help list the competencies which are needed for effective adult living in tomorrow's complex society.

During the next few months, project people will be listening for answers. They'll be trying to organize those answers in a way which assures that students will be able to apply a variety of skills, knowledge, and attitudes in all areas of their lives. The project is designed to rethink ways for schools to help students who will spend their lives in times of ever-more-rapid change.

Why is it called Project 81? Because, by 1981, the Department of Education hopes to evaluate progress toward those goals. At that time, the State Board of Education will decide whether to change Pennsylvania's graduation requirements. The high school diploma, after Project 81 has done its work, should stand for a group of skills and abilities which is required for living in today's and tomorrow's society.

As schools focus on those skills and abilities, in the next four years, schools and educators increasingly will need and use community resources to help in the learning process. If students are going to be asked to apply their skills and abilities in adult living situations, they will need to have experience in those situations.

Educators long have known that "transfer of training" -- application of learned skills to a new situation -- is much more apt to take place when the new situation is like the situation in which the skill was learned. This fact suggests that if new graduation requirements are going to include application of skills and knowledge, school programs will need to examine the situations in which these are learned.

School programs will have to include experiences for students in real-life situations -- situations in which students will be asked to apply their learned skills and knowledge. Some of these experiences may be provided on-campus. On-campus experiences may include reading to acquire information, holding a school election, managing a school store, or assisting in the care of younger children.

*Dr. Zanglein became ill the morning of her presentation and was unable to deliver it, but asked that the main ideas of Project 81 be presented.

Some experiences better may be gained by moving the students off-campus for varying periods of time. Off-campus experiences may include attending a governmental meeting, participating in a community arts show, exploring various career options, or delivering meals to home-bound citizens. There are many opportunities for learning in real life situations. During the next four years, the Project 81 districts will be identifying, pilot testing, and evaluating both on-campus and off-campus learning experiences.

By 1981 we want to see whether schools can assure that a person who receives a high school diploma in Pennsylvania is capable of applying the skills and knowledge defined by the community as needed for fully adequate day-to-day living.

This program was initiated by the State Board of Education in January, 1976 when it directed the Secretary of Education to undertake a plan for the development of community learning within the schools of Pennsylvania, with the following criteria in mind:

1. a redefinition of the purpose of public education in terms of the competencies which children and young people should be acquiring at various levels;
2. a plan for maximizing community involvement in schools, including both the community's use of schools and school's use of the resources of the community;
3. a plan for shifting State Board curriculum and graduation requirements from their present dependence on courses, credits, and Carnegie units to the newly defined competencies.

The Board also directed that all this should be done with the greatest practiceable involvement of those concerned - students, teachers, administrators, school board members, and citizens - with the least possible increase in cost of public education.

The major goal of Project 81 is to see that students acquire the competencies they need to be successful in the adult world. An important premise of the project is that in order to be competent, one must acquire knowledge, develop skills, and be able to make value judgments.

Students will be asked to show competency in the basic skills as well as in four areas of application, called life roles.

Basic skills, the foundation for acquiring all other skills and knowledge, are defined as: reading, writing, speaking, listening, computation, physical dexterity, problem solving, and interpersonal relations.

Life roles, as tentatively categorized by the Department of Education are: citizenship, work, leisure, and home life. The citizenship competencies assume that being a good citizen is more than just knowing how to vote. They will also include the skills and understanding students need to make a contribution to the world around them, whether it's by protecting the environment or by running for municipal office. Work competencies will be aimed at preparing students to be successful in whatever occupations they choose, while leisure will ensure that students are able to make creative use of their free time. Home life competencies include consumer skills, family relations, and all those abilities people need to be effective as they go about the business of living.

The state competencies in the basic skills and the four life roles will be based on common agreement as to what students must know and be able to do if they are to be successful in the adult world. In setting the state competencies, consideration will be given to the differing abilities of children.

Local school districts and the communities they serve will be responsible for going beyond these state competencies and defining additional ones in order to meet the unique needs of individual students and the community.

Another basic premise of Project 81 is that learning must continue beyond graduation from high school. This concept, called "lifelong learning" refers to formal schooling, work experience, a combination of the two - in short, anything that furthers a person's knowledge and skills. The relationship between lifelong learning and life role competencies is being addressed by the Office of Higher Education through its office of Lifelong Learning.

The process for implementing Project 81 is being used first with 12 districts which have been selected to develop model programs and then, if successful, with other districts. The process includes a number of tasks grouped into three stages:

1. Goals. The Ten Goals of Quality Education (as previously defined by the State Board of Education) will be revised. An attempt is being made to restructure them around the basic skills and the four life roles.
2. Program development. First, life role competencies and competencies in the basic skills are being defined. Next, community resources that may be used in conjunction with school resources to help students achieve the competencies will be identified. Finally, school programs will be reviewed to see if the competencies are being taught effectively and if community resources are being used where necessary. These three steps should lead to the revision of existing programs and the development of some new ones.
3. Assessment. The state curriculum regulations will be examined and revised if necessary to reflect the new state competencies, while local graduation requirements will be examined and revised to reflect the comprehensive school program.

After much deliberation, staff members from the State Department of Education chose the twelve sites as models for Project 81. Selection was based on evidence of support in the school and community as well as geographic and population diversity.

The model districts include: Avon Grove School District, a rural school district in southeastern Chester County; Lancaster School District, an urban-suburban school district in southeastern Pennsylvania; Montgomery Area School District, a rural area in central Pennsylvania; Philadelphia School District (sub-district six), a cross-section of the city with a black, white, Spanish-surnamed, Asian population, with a wide range of incomes, from the highest income areas to urban poverty areas; Pine Grove Area School District, a sparsely populated area in Schuylkill County; Pittsburgh School District, the second largest district in the Commonwealth; Rockwood Area School District, an agrarian, sparsely populated region in southwestern Pennsylvania; Upper Merion Area School District, a suburb of Philadelphia in Montgomery County; Washington School District, a small urban-rural area in the southwestern corner of Pennsylvania; West York Area School District, a suburban area in south central Pennsylvania; and two Intermediate Unit consortiums: Intermediate Unit 5 Consortium, in the northwest corner of the state includes

five districts - Erie City, Fairview, Harborcreek, Iroquois, and Millcreek, and Bucks County Intermediate Unit 22 Consortium, includes Neshaminy, New Hope-Solebury, Penridge, and Quakertown.

Community Education In Rural Schools

Jonathon Sher*

Basically, I'd like to talk about the school community partnerships in rural areas; but before going directly into that topic, there are some words that need to be said.

Prejudice has long been thought of as a very personal kind of problem; but, thanks largely to the civil rights and women's movements, we're beginning to understand that even out biases have become bureaucratized. In fact, problems like racism and sexism are so widespread and so deeply ingrained - so institutionalized - that their ill effects are felt even in the absence of intentional acts of prejudice.

Sadly, there is another of these institutionalized "isms", urbanism, that must be brought to light. Urbanism is the belief that America's future rests solely on the fate of our large cities and suburbs. Once the bucolic nostalgia is stripped away, rural communities and small towns are often thought of either as future urban areas or at least as places sorely in need of urban amenities. Thus, we think it perfectly appropriate that metropolitan issues monopolize the nations domestic agenda, that large cities and suburbs get the lion's share of public and private resources, and that assistance to rural areas usually includes an attempt to make them adopt urban solutions to their own particular rural problems.

Though the importance of urban issues is unquestionable, the resulting disregard for small towns and countryside communities has meant that their long-standing problems have continued unabated and new difficulties have emerged unchecked. Yet the most discouraging feature of this continuing discrimination against nonmetropolitan areas is its institutionalized nature. No government official goes to work in the morning with the intention of harming America's rural citizens, but the crux of the problem is that no one needs to in order for harm to come to them. We have seen the legacy of institutionalized urbanism in the decline of the family farm, the replacement of small rural businesses by corporate enterprises, and the swelling of urban welfare roles and unemployment statistics caused by the migration of poor or jobless rural youth to the cities; yet no where has this disquieting legacy been more evident than in the case of public education.

Contrary to popular opinion, an enormous amount of children go to rural or small town schools. In fact, more than 15 million children, approximately one-third of all students in U.S. public schools, were enrolled in nonmetropolitan schools last year. In comparative terms, there are more students in nonmetropolitan schools than there are in central city schools. Although there are many excellent rural schools, recent statistics indicate that the nation's highest rates of illiteracy and chronic truancy are found in rural

*Dr. Sher presented this paper as the opening address of the General Session in the absence of Dr. Judy Zanglein

areas. Similarly, the national assessment of educational progress indicates that rural children score significantly lower than the U.S. average in virtually every subject area.

In a rational world you would expect a combination of lots of kids, lots of problems, and lots of potential for improvement to capture the attention of state and federal officials and spur them on to action; but in the current climate of institutionalized urbanism, the nonresponse is monumental. So once again we hear a new U.S. Commissioner of Education proclaim urban education to be a top priority; and we see a national magazine like *Newsweek* devoting huge headlines in a recent cover story to the plight of big city schools while nary a word is spoken of their rural counterparts. Very quickly it becomes evident that while the problems of rural education are no less serious, they are taken less seriously by our nation's educational and political leaders.

What does all this have to do with today's topic - that is, "improving the interaction between schools and communities in rural areas"? In my view it has everything to do with it, for I am convinced that the breakdown in the school-community partnership, which is a growing problem in rural America, is a direct result of this institutionalized urbanism which is running rampant in our society as a whole and in the education profession in particular. Thus, before addressing the question of how to improve the school-community partnership, I'd like to spend a few minutes describing how rural communities got into this fix in the first place.

The culprit in this particular story is the movement from rural school to district consolidation. Yet, as is often the case, history shows that the leaders of this movement were not evil people; in fact, they were very well-intentioned, but the record shows that they were also misguided. Put simple, they genuinely believed that bigger schools and districts inherently meant better ones. They genuinely believed that the urban model of education could be universally applied and its emphasis on specialization and professional control of the schools equally applicable to the rural circumstance, and they believed that economy and a business style of efficiency were values which should always take precedence over community participation and parental involvement in the schools.

Like the U.S. generals in Viet Nam who argued that native villages had to be destroyed in order to be saved, leading educational policy makers have long asserted that small rural schools could be improved only through their elimination. Acting upon this belief, rural reformers and education officials of the state and national levels promoted school and district consolidation with, as one observer put it, "an enthusiasm once reserved for snake oil." Unlike snake oil, however, the sales pitch for consolidation was remarkably affective. In less than 50 years in this country, 99 percent of America's one-room schools were closed down permanently. The number of four-year high schools was cut in half even though enrollment at that point was tripling, and more than 110,000 school districts were reorganized right out of existence. However, despite this extensive consolidation, rural American schools and school districts remain far smaller than their urban counterparts. For example, in 1972 there were still more than 7,000 school districts enrolling less than 1200 children. Similarly, in states such as Nebraska, Iowa, Colorado, Vermont, and Alaska the average rural school enrolled less than half as many students as the average urban school in the state. Thus, in many states, the fate of small rural schools continues to be a vital and occasionally volatile issue particularly in this era of rising costs and declining enrollment.

Observers of the consolidation movement have noted, first, that principle advocates of consolidation were almost always state level and federal level administrators rather than local parents and local community leaders. They also argue that the empirical evidence supporting this movement is severely flawed and unreliable. Yet, what I am struck by most, is the irony inherent in a rural school reform movement which condemns rural schools as backward and provincial for implementing the very same practices which are labeled as progressive when carried out by suburban schools. So-called innovations like individualized instruction, cross-age teaching, having older students teach younger students, and yes, using the school as a community center and the community as a learning center were all practices which flourished in small rural schools for more than a century. Yet now, just as we find educators, policy makers, and citizens embracing these concepts in our cities and suburbs, we continue to see their elimination in their traditional stronghold, rural America. How ironic it is to see the cream of our suburban schools emulating old rural practices while rural school systems are continually urged to adopt the old suburban models. Resolving this dilemma while rejuvenating rural schools is not an easy assignment; however, it is not the impossible or worthless endeavor policy makers would have us believe. Most important, though, it is an assignment which we must embrace if we, as a nation, are serious about our commitment to providing equal opportunity and educational excellence for all children, whatever their family background or place of residence.

In one way or another, I've spent the past seven years observing, researching, and thinking about the rural school reform movement; and based on this work, I've come up with five key lessons about implementing reform and improving education in rural America. These emergent lessons can serve not only as a warning against repeating mistakes of the past, but also as a set of policy guidelines for the future. The five basic lessons about rural education reform are as follows:

1. The primacy of local circumstance must be respected. Rural communities may well represent the single most diverse and heterogeneous group of individuals and communities in our society; thus, the notion of an educational reform strategy that is applicable and affective throughout rural America is nothing short of ludicrous. Any reform strategy that seeks to circumvent local traditions, values, beliefs, and capabilities, rather than building upon them, is bound to fail.

2. The linkages between school and community must be expanded and the bonds between them strengthened. Schools have been and continue to be absolutely vital as community institutions, as well as educational institutions in rural areas. Reforms which intentionally or unwittingly restrict these linkages or weaken the bonds between schools and communities are very counterproductive. In rural areas schools need the community to supplement and extend their efforts while the community needs the school, both as a source of community identity and as a reinforcement for the community's child-rearing practices. This active interdependence between community and school is a key attribute of rural education. Reforms that sacrifice this relationship have a detrimental effect on all parties concerned.

3. The balance between outside regulation and local control must be made more equitable. Rural school systems have been, are, and doubtless will continue to be both dependent upon outside assistance and subject to outside regulation. Yet state and federal assistance to rural schools has been notably scarce while mandates and regulations have been abundant and

heavy-handed. The whole meaning of local control in rural America has become trivialized as a consequence of subsistence level resources coupled with a plethora of detailed state and federal requirements. Reforms that do not redress this existing imbalance, that serve to further atrophy local control or expand outside dominance, or that treat rural districts as welfare cases rather than as equal partners in the educational enterprise, are of no help in the quest for rural school improvement.

4. Structural reforms and substantive reforms must be treated as separate and distinct issues. For too long, policy makers and rural school reformers have artificially linked needed substantive improvements with their own agendas for rural structural reform. By arguing that increased student achievement, or better teachers, or an improved curriculum were entirely contingent upon reforms like consolidation, these educators unnecessarily confused the relevant issues, encouraged false expectations, and most important, diverted attention, assistance, and resources away from the continuing need to upgrade the quality of existing rural schools.

5. The final lesson is that rural efforts and reform must capitalize upon the strengths as well as corrected deficiencies of rural schools. Historically, educators have either disparaged the advantages inherent in small rural community schools or have taken those advantages for granted. As a result, these advantages have often remained undeveloped potentials rather than fully utilized components of a school program. A related problem here is that the analysis made by the reformers have been so harsh that they have triggered a self-fulfilling negative prophecy in many rural communities. Trying to make rural people feel defensive and demoralized about their schools has not proven to be a very productive strategy for creating beneficial educational changes.

Thus far, the comments I have made have been rather critical and somewhat discouraging, but there are communities and individuals who have intuitively understood and acted upon these lessons. I'd like to share with you some good news about three places where forging a partnership between rural schools and rural communities is a reality rather than merely rhetoric.

As noted earlier, the idea of using the community as an educational resource in rural areas is hardly new. In Westminister, Vermont, the public primary school is run by Mrs. Claire Oglesby, who was Vermont's teacher of the year in 1970 and is considered somewhat of a miracle worker today. It is Mrs. Oglesby's theory that if a person is to understand himself and his place in the world, the learning process must be freed from confining barriers and become integrated with the daily affairs of the people of all ages who make up the community. Expending great measures of time and energy, but very little money, Claire Oglesby has made this theory work. Townspeople teach courses like sewing, baking, cooking, gymnastics, art, music, foreign languages, photography, and drawing. The latter is taught by a 78-year old retired civil engineer. The result is a greatly enriched rural school and a community that feels involved with its school and responsible for it. Parents remodeled the school; they hold bake sales and square dances to support it; they use it as a public library and as a summer movie theater. Mrs. Oglesby considers her school to be a community school in the most traditional rural sense and most Westminister residents seem to agree with that view.

This kind of community school is only possible in a small setting. If a school had 1,000 pupils, there are simply too many contacts to be made, too many permissions that have to be sought, too many arrangements to be set up. Many of the people involved with the Westminster school are there because Claire went and got them. They would have been unlikely to respond to the impersonal kinds of requests sent out by large schools' community relations specialists. The consistent, informal personal interaction that Claire Oglesby maintains with her community could not be easily duplicated, even at great expense, in a city. The small rural community school, with its access to the local grapevine and its capacity to serve as a gathering place for all citizens, is the natural setting for this kind of schooling.

A new and more innovative approach to the notion of forging a school and community partnership is embodied by the "Fox Fire" project. This project was started twelve years ago in the small rural community of Rabengap, Georgia by a man named Elliot Wigmanton. What Elliot has been able to do over the past twelve years is to have the students in his classes go out into the communities where they live and learn about not some distant military heroes but their own ancestors and their own culture. They have published five books and a continuing magazine, and there are now chapters of the "Fox Fire" project all over the country. But the real value of the "Fox Fire" movement, beyond the particular value derived by the students, is that it really forges a strong linkage between the school and the community. Parents and grandparents who used to have nothing to do with the schools now are actively involved, and children who were taught by their urban-oriented teachers that the only good life was in the cities have come to learn more about, and thereby, treasure, their own heritages.

Third, and finally, I would like to share with you the story of a very small, very rural school which has made a more radical approach to the school-community partnership idea. In Mingo County, West Virginia, which is a mining area where most of the population is quite poor, there is a county school system. Within that county there is a very isolated ridge top known as Big Laurel. Twelve years ago the county closed down the one-room schoolhouse which served this remote community and the kids had to travel two hours each way to school. They had to walk two to four miles off a mountain to where a bus could finally pick them up, and during the winter, or whenever the weather was bad, they simply couldn't get off. In fact, for four months out of every year, the kids were rarely able to attend school. This is a story that has happened over and over again in rural areas in this country; but at Big Laurel there is one distinct difference, which is that the community finally decided last year that they'd had enough of it. They'd had enough of the hardships; they'd had enough of the inadequate education their children were receiving; and they were tired of having a school system in which they, as parents, had no involvement, let alone control. So last year they, as a community, pulled their children out of the public school system, and with their own time, their own material, and very limited money, they built themselves a school on that mountaintop. I am happy to report that that school is now a thriving, excellent school. They managed to recruit two teachers to come there and we are currently helping them to negotiate a contract with the county to pay tuition for the students to attend that private school up on the mountaintop. But the real point of the Big Laurel school is that they wanted a chance to have the involvement that was real in their children's education, and they acted upon it. I think that it is inspiring.

In conclusion, I think that there clearly is a pressing need for appropriate action in the rural education arena - action that will serve to link schools and communities in ways that are mutually beneficial. Rural communities have already suffered through enough urban-oriented educational reforms, resulting in much bigger but not much better schools, to last several lifetimes. Public policy must begin to support the efforts of local rural citizens to identify and to ultimately solve their own problems in education and elsewhere. Successful rural school reform can be achieved. Doing so requires only the combination of local initiative, external assistance, a measure of creativity, and the will to provide rural children with the best education possible. For too long we, as a society, have avoided this task. We cannot afford the human and economic costs any longer.

General Discussion About Community Education

Due to the small attendance the discussion groups on Community Education were combined. The following include some of the ideas covered in the discussion.

The basic role of the public school is to provide the opportunity for learning experiences most people need but would not acquire conveniently if they did not go to school. This assumption has three significant implications: First, it recognizes that people learn much of what they know from experiences outside of school--that school is an augmentation to a person's total life learnings. The functions of the school, therefore, depend upon what the total educational needs of the people of the society are; and in terms of that, which of those educational needs are not adequately being met by other institutions (home, church, neighborhood, as well as other formal and informal institutions). The school, in effect, is the educational ambudsman for the society it serves making sure the people learn what is necessary for that society to maintain and improve itself. Secondly, the school, by its very nature, is an integral part of the community and society it serves, not an entity unto itself. What a person learns at school, if it is to serve a functional purpose, must relate integrally to the "real life" of the learner. Thirdly, the school facilities belong to the people and should be used to the greatest possible advantage to help meet the educational needs of the people and other needs as may be deemed appropriate by the community or society.

One of the significant realities of today's world is its complex social organization. Technological advance, by its very character, mandates specialization which in turn generates interdependence necessitating cooperation. Complicated machinery produces a situation in which even the most productive find it hard to convince themselves of their importance. The almost inevitable result is modern bureaucracy which is characteristically inflexible with the dehumanization of many decision-making processes.

This has created a sense of futility among many who devote their lives to the betterment of mankind while the profound discontent of the nation periodically disrupts into social convulsions with an alarming increase in regularity as our society fails to resolve many of its problems of disequilibrium. With an embiguous feeling that somehow the school should have helped our society avoid these problems or at least should help light the way to new solutions, the people express feelings of dissatisfaction with the total educational system.

The basic role of the school has not changed. It still is an institution maintained by society to provide for the unmet educational needs of society. It still is an integral part of society and educational experiences provided by the school must relate to the life of the community and society. The educational facilities still belong to the people and should be used by the people to meet community needs.

Our society is confronted with major problems that must be resolved if our society, itself, is to survive. Education provides man's major process to adapt to rapid change and give direction to change. The school must serve as a key resource to help provide the quality and quantity of education our people must have in order to respect the dignity of man and the related integrity of his environment.

It is imperative that our society reexamine the role of school and assess the functions that need to be performed to fulfill that role. This must be done at the local, state, and national levels and must focus on three broad questions:

1. How relevant to "real life" is the curriculum of the school in terms of the present age groups or students being served, and how can it be made more relevant?
2. What other age groups need to be served as regular functions of the school?
3. How can the school facilities be used to meet other needs of the community without disrupting the educational services of the school?

There are several major thrusts or trends emerging today in response to each of these questions:

Relevance of the School Curriculum to Real Life

There are two approaches that need to be followed in order to achieve a greater degree of relevance to real life in the curriculum. One is to relate what is now being taught to real life situations, and the other is to change what is being taught to focus on real problems of the community and society.

Relating Current Curriculum to Real Life. The utilization of community resources is a common way to make the curriculum more viable. This can be in the form of bringing resource materials and people into the school or taking the students out into the community. For example, a specialist in water quality may come into the classroom and talk about water pollution. He may demonstrate or describe how to collect and analyze water samples, and he may discuss sources of pollution. The students may also go out into the community with the specialist to see first hand the effects of water pollution. He may learn how to collect and analyze water samples by doing it. He may learn how to trace the pollution to its sources. This approach can be used in any subject area whether it be science, social science, mathematics, or whatever. The community should be considered as the place for learning as well as the place for living.

Changing the Curriculum to Deal with Real Problems. The curriculum can be expanded or modified in many ways. For example, the students visiting the lake or stream, in the above example, may become interested in pursuing the issue further. They may want to know more about the specific processes for

identifying causes of pollution and procedures for correcting the problems. They may want to study the economic aspects such as the cost of preventing or eliminating pollution problems. They may want to study the impact on the polluter and the community, itself, if regulations are strictly enforced and the impact if the regulations are not enforced. This approach to learning need not be limited to pollution or even to environmental issues. Our society is plagued with unresolved problems related to poverty, housing, transportation, health, welfare, crime, etc., that our children and youth can and should study in their own communities. Through this approach, students learn by doing. They learn the basic skills, principles, relationships, and generalizations and acquire knowledge by studying real problems. It can become meaningful experience with a real purpose.

Age Groups Served By The School

Numerous programs are being developed to serve populations other than the traditional K-12 age groups. This includes early childhood programs, career education, use of leisure time, transition from one job to another, planning for retirement, etc.

Early Childhood Education. The Educational Policies Commission, in its report, American Education and the Search for Equal Opportunity, points out that:

Lack of love or care in the home can have disasterous impact on the child's self-concept, attitude toward the world, speech development, and general ability to learn. Some parents, whether (economically) disadvantaged or not, deprive their children of love and care. The reasons may include personality problems of the parents, marital problems, overcrowding in the home, or the need for parents to work outside of the home during the child's waking hours . . . In these cases, it is hard to believe that there is an age too young for nursery school experience, therefore, the public should make provision for this experience beginning in infancy.

The 4C program (Comprehensive Community Child Care) is being developed in Pennsylvania through schools as well as through other social institutions. Emphasis is being placed on home-oriented programs for the youngest children as well as parent-child centers and nursery schools.

Career Education. The school is in the process of developing programs to assist students in making knowledgeable educational and vocational decisions. As our youth leave school, many find difficulties in securing jobs. They may want to return to school to acquire additional occupational skills or guidance in the processes of seeking employment. The school must become much more integrally involved in helping young people make the transition from school to work.

Transition to New Jobs. Not only must the school assist the young people in acquiring the needed skills or knowledge to seek initial employment but must help retrain for new and changing jobs. The average worker today will change types of jobs several times in his lifetime as technology eliminates old jobs and creates new ones. The vo-tech schools, community colleges, and other institutions will be involved in this transition, but so must the community school, providing whatever is needed and available through its resources.

Use of Leisure Time. The school must teach people of all ages how to use leisure time in such ways as to enhance the quality of one's life. This must include the five arts -- music, drama, art, crafts, as well as physical activities particularly types of activities that may be pursued throughout one's lifetime.

Planning To Retire. A severe problem for most people who retire is how to regulate their activities in such a way as to gain satisfaction and maintain good physical and mental health.

The essence of these various areas of concern is that our society is undergoing rapid change. All living things, including people must adapt to change or die. The rate of change is increasing; and as it does, the school must be conceived as lifespan, helping people learn what they need to know to be able to adjust their way of living accordingly.

Use of School Facilities To Meet Community Needs

The basic concept that the school building and other facilities belong to the community and can be used by the community needs to be expanded. Not only does the school need to teach how to use leisure time, but make its facilities available for such use, such as: the auditorium for community and children's theater, the gym, swimming pool, ball fields, and other such resources for community use, the arts, crafts, music facilities for use by groups of all ages, the shops for "do-it-yourself" activities, the closed circuit television, planetarium, whatever the resources may be should be available for community use.

In summary, the school is a resource of the community. To meet the educational needs of a technologically-advanced, rapidly-changing society, the school must provide opportunities for educational experience for all members of society as formal education (school) becomes lifespan. To use the facilities to the optimum, they should be available for use in the evenings, weekends, the summers; anytime, day or night, any day of the year they are needed.

ORGANIZING LEARNING RESOURCE CENTERS TO FACILITATE LEARNING

Learning Centers An Alternative To Traditional Schools

Gabriel D. Ofiesh

I appreciate this opportunity. It is the only time I get to do any lecturing since I stopped lecturing to my students about ten years ago. Don't misunderstand. There are times when I am for the lecture method. Without it professors wouldn't know very much. It helps them to organize their thoughts and discover new knowledge. I tape record everything I say and play it back in my car cassette player, and I am literally amazed at the things I learn from the things I hear myself say at times. So this opportunity to address you is a long-delayed reinforcement for being such a good lad with my students and not lecturing to them....

I'm not as optimistic about the state of things in international and national education as your previous speakers have been. In fact, I'm very pessimistic. I stopped intervening in the present system of universal education several years ago and trying to change it from within. I frankly don't think the system can survive. So I'm one of those few people who are looking at alternatives to the present system. I am one of those few who are trying to observe, as painful as it is, new institutions that are starting to emerge. I am convinced these new institutions are going to assume the educational functions that educators are presently giving up by default. Those new institutions are utilizing the technology of our time. And this bothers me only to the extent that I feel that maybe some of us can give some direction to these new forms and institutions of learning and communications.

The innovative alternative institutions that I feel are going to take hold and we need to observe in the process of their emergence are going to emerge in the Third World - in the developing nations, not in our western society.

We are in a state of crises in the western society as far as education is concerned, but we are unaware of it! I'm convinced, however, that there is such an awareness in the developing world. I'm convinced that the Third World is going to make that quantitative leap forward - that moonshot in education so badly needed - and use the technology that is emerging all around us.

Someone said that educational revolution is evolution that takes place while educators have their backs turned.

Among these new alternative forms of education that appear most promising to me is the learning center. Notice I said learning center, not learning resources center. More and more as the learning resources center takes hold, the word resources will drop out. In a few years in developing countries we will be talking about a centralized learning center which does away with the egg-crate classroom. By the way, we are still building egg-crate classrooms and school buildings in this country. The new learning centers will take full advantage of the delivery systems that are emerging all around us.

You know we've been too long in education asking the wrong kinds of questions and giving the wrong kinds of answers. We even ask the wrong kinds of questions

from our students. In my billfold I always carry - but I couldn't find it this time - a Peanuts cartoon which one of my students gave me years ago. Lucy is saying to Charlie Brown: "I have a lot of questions about life, and I'm not getting any answers. I want some real honest-to-goodness answers. I don't want a lot of opinions - I want answers!" And Charlie Brown says: "Would true or false be alright?" I'm not going to give you very many answers but I hope by the time I'm finished, you are somewhat disturbed and provoked and more importantly, disturbed. We can't afford to live in the past. In the play Adrian VII, there is a statement wherein the new renegade Pope says, "The past has no future." We can't afford to rest on the past. We must break through the past. We are a society with such radically new technology that we no longer have to react to the future. We are not only not reacting, however, to the future, we're still reacting to the past....

Sydney Harris, in a recent column, made it painfully clear in a manner that I couldn't possibly emulate, that much learning and probably the most significant learning goes on outside of the classroom when he said "It can't be argued that given the condition and needs of urban slums, the gang offers a better educational bed than the school does. In addition, the gang protects and serves its members, which curiously enough is the motto of the Chicago Police Department. A well-run slum gang will take in an ignorant boy of thirteen and teach him just about everything he needs to know for survival, and sometimes supremacy of the world he inhabits, but sends him to rob and steal. It is amazing how fast even the dullest school people acquire proficiency in these street arts. If he gets caught and sent away, he is likely to find an active chapter of his gang or one much like it in the detention home where he learns even more that you can make it into his majority, and suddenly finds himself in an adult prison - his gang connections offer as solid an entry into the prison elite as a social register listing at Bar Harbor."...

Has the gang got something to teach us in terms of our egg-crate classroom? Can we learn something from the gang that we can bring to the comprehensive community-based, flexible learning resource center? The one thing I took exception to in Dwight Allen's comments is that he kept talking about kids. Yet, the volume I have here in front of me and which I am showing you in my hands is the Congressional Hearings on the Lifelong Learning Act. I think we must stop talking about the kids and start talking about learners, learners of all ages. Learners from the age of one up to and including the age of ninety, and, soon, one hundred. And learners, in fact, even before the moment of birth, learners starting with the moment of conception and only ending with the moment of death. Possibly the learning resource center of tomorrow is the only place where I can see such life-long learning taking place....

We are a society where we no longer have to react to the lessons of the past or to the promises of the future. For the first time in the history of civilization, man has the tools through technology to determine his own future. I am a little concerned that if all we do is to establish year round schools, then maybe what we are going to do is to proliferate the mediocre pedagogy that presently exists in our present nine- and ten-month schools. It is not enough to ask for year round schooling, but what we must do is ask for year round schools that lend themselves to the innovative, educational technology of our time. And I would suggest that probably the most significant innovative procedure is the learning center concept which allows us to divest ourselves of the restrictions that are imposed upon us by the bureaucracy. We can determine the future if we are up to it. Nationally as well as internationally, we need to proceed with such a sense of cautious urgency that the unheard of today becomes tomorrow the way we did things yesterday.

Dr. Dwight Allen reminded us yesterday evening that there are 500 million children in the developing nations of the world who are in no school whatsoever. He also added that there were 220-some odd million children that are in school. And undoubtedly you must know that those that are not in school are reproducing themselves faster than those who are in school.

Even granting that the schools that those students who are in school are mediocre, then the tragic state of those students who are not in school must tell you and me and all of us here that we are on a cataclysmic path. We are, in the words of the Air Force pilot, "already behind the power curve." We may have on the outside thirty or forty years ahead of us. Where do you think we are going to find the 10 million school rooms and 10 million teachers overnight? And I would ask you to entertain the possibility that the biggest barrier to the innovations that I think need to take hold to the moonshots in education, internationally as well as nationally, are the universities and their role in the developmental projects throughout the world. Over and over again we find university professors writing their learned articles for obscure journals, rather than addressing themselves to creating alternative institutions with new delivery systems which will reach the unreachable and teach or produce learning for the unteachables. Therefore, I think that the learning center of tomorrow is a concept that brings to bear the fullest application of technology. But let me emphasize that by technology I do not mean hardware, I do not mean the machine; by technology, I mean the willingness of people to apply what we know about how human learning takes place and put that knowledge to work. That is what technology is all about. It is putting ideas to work. It is not using the machine, the machine simply delivers technology, it delivers the process....

Let's look at another group. I've talked to you briefly about children throughout the developing world. What about the older citizens of our universe? What about the senior citizen, not only in the United States but throughout the world? There are a few vignettes that I could mention. For example, the unrealized audience for the arts presently being explored at the University of Wisconsin in Madison, Wisconsin. I think this model deserves some of our scrutiny and study. At the Second Horizon Center in Colorado Springs, which is a senior citizen center, Dr. Jay Copley, who received his doctorate in leisure research, is teaching a course to undergraduates in the sociology of aging at the Senior Citizens Council learning center.

May I give you a slight indication of where I think the community-based learning center in developing nations can help to meet just one problem, not to mention many others?

It was recently reported - and I don't have the source at hand - that nurses and doctors working in poor nations have criticized American manufacturers for promoting infant formulas that impoverished mothers in these poor nations can neither afford nor mix properly.

In testimony before a Senate-held Subcommittee, Dr. Derrick Jeliffe, former director of the Caribbean Food and Nutrition Institute in Jamaica, estimated that about 10 million cases of malnutrition and diarrhea in poor countries were attributable to inadequate bowel feeding.

Dr. Jeliffe, who currently is head of the Population Family in International Health Division at the University of California, Los Angeles, recently told the Subcommittee Chairman, Senator Kennedy, that most of the cases of diarrhea and malnutrition could have been avoided by return to breast feeding. Doctors and

nurses have pointed out that a major problem was that in some areas the only water available was polluted. Most infant formula that are available require the addition of boiled water.

The point I would like to make is that a critical problem in relation to this is that many of the parents who need to know this simple fact are illiterate parents. They cannot follow the directions on the cans and sometimes over-dilute the formula to make it last longer.

It was pointed out by Fatima Petal, a nurse in Lima, Peru, that although the only way into some bush jungles is river and footpath, we still find infant formula available in these remote areas, and in these areas, river water is used as the toilet, the bath and also the drinking water. Nurse Petal points out that to boil the water, a poor woman must go into the jungle, chop wood, tote it back and start a fire. First, it is questionable whether the mother knows that she should boil the water, and instead of doing all that, women often mix unboiled, contaminated water directly with the formula. Now this is an obvious case of where formula feeding and the lack of education have exacerbated malnutrition.

There is no question in my mind that through our technology; that is, the use of very inexpensive filmstrips that need daylight and no power and through battery operated, inexpensive equipment, we could develop audio-visual materials to educate these people - these mothers - to the advantages of boiling the water. But even that is difficult because the average income for a family of 5-6 people in Jamaica is \$16-20 a week, and the cost of feeding a baby with formula for a week is \$7, and where some women make a single can of baby formula last two infants for two weeks. The obvious advantages of breast feeding can be brought home to these mothers from a cost point of view as well as from the nutritional value that is involved.

This is not to say that these people are less concerned, or that they cannot be informed. Illiteracy is not synonymous with ignorance and stupidity.

On the other hand, the educational package that I am talking about will not be devoted exclusively to a message which stresses breast feeding as the only solution to the problems created by formula feeding. Many mothers may not have enough milk after the third month, or may become ill or pregnant again. And in these particular cases, they should have a package of formula and be advised how to properly prepare the formula. Formula feeding is the solution in these cases. A flexible set of learning materials produced in the village-based or community-based learning center in the developing or poor nations can help with attacking this problem.

This may appear to you only a small, rather insignificant problem, in and of itself when one is confronted with the many, many problems that exist in year round education throughout the developing world. But I would like to emphasize that this only represents in microcosm the overall macrocosmic problems. How do we, throughout the world, representing the educational establishment, respond to such tremendous needs and such overwhelming challenges? How do we change? I don't know! All I'm saying is that it's time that we let go of the hopeless efforts we have made in intervening in the present system and look to the alternative systems. To be very candid, I'm not very hopeful that we can avoid or escape what I call the Dark Ages of international education. I'm convinced that throughout our world in our large metropolitan centers, whether they are in Venezuela, or in Brazil, or in Cairo, or in the United States, our schools are in an acute state of ferment and deterioration in spite of the things that many of us are going to hear from

the concurrent sessions taking place in this conference. It takes many swallows to make a summer. And we are already very deep in our sad winter of discontent.

I am convinced that our whole system of public and private education throughout the world is tottering, and that, further, in our schools of education in the universities throughout our western society as well as in developing nations, we are unresponsive to the needs of teachers of tomorrow, parents, and above all, to the need of our students.

As an example, I don't know of a single school of education in this country that is seriously addressing itself today to training the teacher for the next five years, let alone the next ten or fifteen. As an example, may I mention one significant set of innovative procedures? Dr. Ruskin, who is here with me on the platform and is the moderator of this session, has been one of the prime movers in what is called PSI, or the personalized systems of instruction. He will tell you that among all the departments in higher education that are using PSI, the one that is using it less than any other department is that of education. Now why is that in higher education schools of education are the least responsive to this methodology? Someone has said that if the edsel were a college department in a school of education we would still have it with us. We seem to be unable to build into our current institutions of higher learning the renewal mechanism necessary to provide the facilitative catalyst to move forward into the 21st Century and to change radically the present mechanisms that exist all around us. Therefore, I ask you to imagine with me that possibly the learning center of tomorrow may become the vehicle wherein the year round school may really take impetus.

Frankly, in planning my remarks for this conference, I searched very, very intensely for a place where the year round school and the learning center were joined together, and I couldn't find any models that I could present to you at this time. I'm not saying that such a model or a few models do not exist, I'm merely saying that I was unable to find some after a very diligent effort on my part....

We must overhaul the way we are doing things. A patchwork job will not do it. Simply to talk about the individualization of learning, for example, is not enough. We need also a correlative revolution in the administration of education. The whole system needs overhauling. We need to elevate the primary and preschool teacher to the top of the hierarchy and put the college professor where he belongs, at the bottom of the hierarchy, because frankly and quite candidly, we college professors have the least impact on our students. And I think basically we have got to start with the premise that we do not care and somehow we must start caring. It was Lawrence Gould, President-emeritus of Carlton College, who said over a decade ago - and I quote here - "I do not believe that the greatest threat to our future is from bombs, or guided missiles, or pollution. I don't think civilization will die that way. I think it will die when we no longer care." The thing that is disheartening to me has been the reluctance of the educational establishment to take hold of one of the great tools of our 20th Century, that is the computer. It was bad enough that we did not take hold of TV, but now we are doing the same thing with respect to the computer. I'm convinced that in twenty years the use of the computer will be cost effective and it will give us a tremendous resource for worldwide education through satellites microprocessing technology and the small chips which will be produced containing tremendous programming capability at a cost even cheaper than the printed page today. Are we willing to wed ourselves to this tremendous tool? Are we willing to wed ourselves to television and radio? We haven't to date. We haven't so far. The developments in computer technology and in the correlative bubble technology which is on the horizon to accompany it boggles all mentalities except those mentalities of educators....

If we are imaginative enough to build the year round school around the learning center concept that I have tried to describe briefly, then the facilities of all the new technologies will be available 24 hours a day every day of the year. At this point the learning center becomes a concept as well as a physical reality because delivery systems are flexible enough to be adapted to the needs of the learner at the time the learner desires those needs to be satisfied, no matter where the learner is or under what circumstances he is functioning.

Radio Shack is coming out in two months with the home computer that is going to sell for \$600. I warrant you that in two years, three years at the most, that computer will sell for \$200....

I am holding up in my hand here in front of you a Texas Instrument calculating machine, it is a small computer. This small chip which I've just pulled out of the computer is a small module which no more than ten years ago you would require a computer the size of this huge table in front of me, to carry the same programming capability as I am displaying to you in this small chip which I am holding in front of me between by thumb and my forefinger.

So, I ask you very candidly, while these chips are going to be programmed for educational purposes, where are we, the educators, going to be? Are we going to do the programming, or are we going to give up our role by default to others? Or will our innovative techniques be similar to those of the teacher who said: "Oh, I use calculating machines in my classroom in teaching basic arithmetic. I say to Jimmy, "Here's two calculators and here's three calculators, how many calculators do we have?"...

Let's shift momentarily from the field of arithmetic to that of the arts and humanities. There are at least five great films on Hamlet alone available in film cans somewhere. There are several million students who take a course in Hamlet or Shakespeare in our country. What percent do you think see one of those films? I think even an optimistic estimate would be no more than two. Professor Arthur Pearle, another bad boy of American education, caustically said several years ago that if we taught sex education the way we teach English literature, we would get rid of the sex drive. What we need to do is open up a variety of options to the student. Options that he doesn't have at present. We need to open up these options in the developing worlds as well as in our own country.

Frankly, I believe the developing world will seize these options more readily than we will. I am convinced in three or four years from now we will have available in the home learning center a little program chip that we can put into a coin box type slot which will probably control a video disc which, in turn, will manage information on video discs so that it is presented on our home TV monitor in such a manner that guaranteed learning will be produced to the viewer.

Margaret Mead stated several decades ago that no one shall live today in the world in which he or she is born. Well, I paraphrase that and say no one shall be born today in the world in which he or she was conceived. My daughter is 18. I'm '58. What kind of world do you think it's going to be when she is my age? I can't even fathom it. What I've already told you is mind-boggling except to the mentalities of educators. If she will be permitted to have a child, and the way things are going she may not be permitted to have a child, by the time she is my age, her children, if she has any, will probably go around with a little black box no bigger than her mother's purse, and they will be able to - not a hundred years from now as Arthur Clark might say, but more likely 30 years from now - retrieve audio visual information on a 2½" color screen with high color resolution

from any part of the globe. And again, educational information will be presented to students, eluding the management grasp of traditionally-minded educators....

Truly, the learning center of tomorrow is here today. In fact, the year round school is here today. The only problem is that it is not where we want it to be physically and we are no longer controlling it. Who will be controlling it? I leave that question with you.

The Excelsior Learning Resource Center in Jamaica

David B. Walch

It is a privilege to discuss with you this morning the Learning and Resources Centre that has been proposed for the Excelsior Education Centre. In doing this I would like to provide you with a background of Jamaica and the Excelsior Education Centre.

The social, economic, and educational problems of Jamaica are not unlike those in other post-colonial countries of the Caribbean and Africa. Jamaica shares with the other islands of the West Indies a history of slavery, a tradition of elitism in education fashioned largely after the English system, wide divisions of social class structure, a high rate of illiteracy, and an inadequate supply of technically and professionally trained individuals to support a fast-expanding industrial economy.

The present government of Jamaica, like the government that preceded it, has placed the highest possible priority on the improvement of the society through education. A substantial portion, some reports indicate almost one quarter, of the country's national income is allocated for education. Jamaicans are fully committed to the development of an effective system of education, for they realize that it is only by the optimal use of human and material resources that the country will continue to progress. But despite rapid advance in terms of primary and secondary school enrollment and increased opportunities for secondary and higher education, the Jamaican system of education, like many of the post-colonial countries of the Caribbean, remains beset by problems of outworn and inadequate practices.

In the last two decades, opportunities for secondary education have greatly increased, and attempts have been made to ensure that a place exists for every school-aged child within a primary institution. Fees at the grant-aided secondary schools have recently been abolished, and the system is presently more open and responsive to the masses.

The Excelsior Education Centre was designed in order to address the vital problems of the educational system of Jamaica. Although it represents to some extent an expansion of Excelsior School, an institution which has provided distinguished service over the past 46 years, the EXED concept was envisioned to serve several essential functions. First, EXED, as it grows towards the final phases of development, will actually be a microcosm of the total educational system. Second, it will comprise--in one single complex--one of each type of institution existing in the country. Third, EXED is intended as a model or demonstration centre providing the means for the extension of educational provisions from age four to forty and beyond. Fourth, the Centre, located as it is in a traditional area between the urban and suburban location, is deliberately geared to cater to all classes of society. Fifth, the concept of EXED is designed as a laboratory for research, development, and

the implementation of the most advanced ideas in terms of educational technology, curriculum design, and the application of a systematic approach to the problems of education in Jamaica. Thus, it is expected that ideas and practices promulgated at EXED over the years will have an impact not only on the seven institutions which it encompasses but upon the total teaching/learning enterprise of Jamaica, the Caribbean, and Africa.

The moving force behind Excelsior is A. Wesley Powell who began his own "veranda" school in 1931 with a total number of five students.

From this small and meager beginning the school has enjoyed continued and consistent growth. Its present enrollment is approximately 3,000 in a three-shift system with the following institutions: Pre-Primary, Day, Extension and Community College.

Financial support for the school has not come easily. In an effort to stabilize its funding and provide for future growth Mr. Powell gave the school to the Methodist Church in 1951 providing they would retain him as headmaster for life. This move allowed for some expansion of facilities. The government also provides support by paying salaries for the Primary, Secondary, and Day School's classes. For Pre-Primary, i.e., before six years of age and beyond 21, the school must be self-sustaining.

The school has been notably successful - not only in growth and numbers but also in quality. For example, some of the distinguished graduates have included Jamaica's Ambassador to the U.S. and England.

In 1971 the Excelsior Education Centre concept was born, i.e., that the Centre would include each type of school, that it would become a school community in the truest sense and that it would serve its surrounding community.

Although advanced in years, Wesley Powell actively continues the further development of the Excelsior Education Centre. In assessing this growth he has recognized that the "library" which has developed along rather traditional lines has not kept pace with the rest of the school. The present library is located in a shoe box room and enjoys only a shoe string budget. It has a minimum number of volumes (7,000), a small staff (one professional), and no media or non-print materials to speak of, and can only seat 150 or 5 percent of its student body.

Mr. Powell is a visionary man: he recognized the need for more than just a library and he envisioned a learning resources centre that would serve not only the students of Excelsior but the surrounding community as well. He is of the opinion that at the heart of EXED will be the Learning Centre, a source of all EXED's learning materials (books, films, audio and video tapes and cassettes) and a central location for studying, teaching, and improvement of instruction. The Learning Centre is expected to meet seven major objectives:

1. To help students of EXED learn more effectively.
2. To help teachers improve their professional skills.
3. To provide instruction for teachers and students in educational technology.
4. To provide learning materials and equipment for EXED's classrooms.
5. To provide a centre for teaching.
6. To develop instructional materials.
7. To serve the surrounding community.

In the words of Wesley Powell the "Library Learning and Resource Centre" would be regarded as the heart and soul of the EXED project. The Library Learning and Resource Center is seen as the master link between all persons and institutions in EXED and between EXED and the wider community with its rich variety of social classes, especially when one compares the elite houses in Beverley Hills with the Rastas at the Wareika foothills. EXED is at the fulcrum. Look at our new neighbors - Sites & Services - families with income not exceeding \$1,500 per annum, and compare with comfortable, long established middle class homes in Eden Gardens and Vineyard Town. EXED aims at becoming a catalyst for opening and establishing freer lines of communication between the many disparate social groups surrounding EXED.

All EXED's facilities including Assembly Hall, gymnasium, cafeteria, playing fields, swimming pools, labs, and workshops are to be shared between school and community to establish a learning society within and surrounding EXED. Already it is recognized as the educational centre (capital) for this area.

To mix metaphors, EXED may mark, or better said, remove the watershed, or at least blur the lines between school and community and between disparate elements in the school and neighboring society. Any success achieved by EXED could have a multiplier effect on other areas in Jamaica, the Caribbean, and the developing world.

In 1971, an initial proposal was drafted that considered the establishment of a "Library, Publications, and Audio-Visual Aids" facility. The proposal had many merits but there were shortcomings as well. It recommended the establishment of one "Central Library" and three departmental libraries, plus a separate "audio-visual" room. The response to the proposal was basically one of inaction. However, it did initiate interest in a new facility that somehow and in some way would include the Learning Resources concept.

A second, more sophisticated and expanded programmatic description of a Library Learning and Resources Centre was developed in 1975. This proposal was submitted to the EVA (Evangelische Zentralstelle für Entwicklungshilfe E.V.), a German foundation, to determine their interest. The foundation indicated an interest and sought further information. Through the Partners' Program of Western New York arrangements were made for me to visit the Excelsior Education Centre and make recommendations regarding the building of a physical facility that would house the Learning Resources Centre.

My recommendations initially called for a facility of approximately 25,000 square feet. It would accommodate the needs of the entire campus community. In working with the foundation, these recommendations were modified and reduced to 16,000 square feet.

The foundation has agreed to fund the project to \$532,000 providing the Excelsior Education Centre raises \$178,000 in matching funds. It is my understanding that construction will begin January 1, 1978. The \$178,000 has not been totally raised but they have a line of credit established with local banking.

Although I was involved more with the development of a so-called "blueprint" of physical facilities there are questions that ought to be asked. Briefly these relate to:

1. The problem of training "media specialists" as well as faculty who have simply not had the opportunities to use audio-visual hardware. Extensive in-service

training programs will be needed for faculty as well as the Library Learning & Resource Centre staff. How is this expertise to be developed?

2. Building the physical facility is a major accomplishment. Providing the hardware and software will not be an easy task. Such equipment is prohibitively expensive at the outset and constant maintenance is required. Again, where will the expertise to maintain the equipment be developed and how will the budget to purchase software (including books and periodicals) be funded?

3. An important function of the Centre will be to meet the goals and objectives previously specified. How will it be determined if these goals and objectives have been met? What types of evaluation will occur?

A final element in the evaluation process should concern the generalizability of the Learning Centre concept. Can the instructional and learning services within the EXED Library Learning & Resource Centre be considered as a model to be emulated elsewhere in Jamaica?

It should be understood that the Excelsior Education Learning Resource Centre although planned is not yet built. A Foundation has given approval, indeed it has agreed to fund \$532,000 provided that Excelsior Education Centre raises \$178,000 within one year. The physical facilities were initially designed and planned in the process of applying for the grant. Certain modifications were made as the grant was negotiated. I will briefly review the major areas and their proposed functions as I presently understand them.

The initial plans call for a building of approximately 16,000 square feet distributed on the following basis:

- A. Area: Circulation - 1784 square feet
 - Central advice and control area for clientele
 - Working area for staff on duty
 - Charging and discharging for various media
 - Use of Reserve collection
 - Copying of materials
 - Viewing of exhibits and new displays
 - Housing catalog of media acquired.
- B. Area: Reference Room - 7412 square feet
 - Shelving for 15,000 volumes of articles, maps, films, filmstrips, audio and video tapes
 - Seating of 150 students at any one time
 - Staff station for supervision and Reader's Advisory work
 - Area for consulting microfilms, slides, etc.
 - Listening and viewing on 35 carrels
 - House Reference and regular stacks.
- C. Area: Group Listening and Viewing Rooms - 392 square feet
- D. Area: Seminar/Workshop Rooms - 392 square feet
 - Teachers and students to use materials as a group
 - Previewing of materials
 - Listening and viewing.

- E. Area: Multipurpose Lecture, Instruction and Viewing Room - 2545 square feet
- Reading and consultation
 - Accommodate group instruction
 - Varying activities with the wider community.
- Movable seating to allow for flexibility in use of building.
- F. Area: Group Instruction Room - 800 square feet
- To accommodate classes of 40-50 in seminar type group or 80 for projections to a large group
 - Conference room for large groups.
- G. Area: Archives/Special Collections Room - 856 square feet
- Consultation of bequests and rare materials
 - Display of special materials
 - Consultation of professional literature
 - Library and other staff conferences
 - Consultation of professional periodicals.
- 340 square feet for use of professional staff,
516 square feet for Archival materials storage and consultation.
- H. Area: Workroom (Including delivery) - 500 square feet
- Receiving and technical processing
 - Shelving for materials in processing
 - Binding preparation, media repairs
 - Despatch area for materials
 - Work area for staff (Workroom could be larger for size of library)
- I. Area: Production Workshop - 740 square feet
- Media technician's work area
 - Production of materials for instructional use
 - Training in preparation of materials
 - Storage of production equipment
 - Space for storage of chemicals, paints, etc.
- J. Area: Equipment Storage Room - 300 square feet
- Housing equipment - projectors, etc.
 - Equipment repair area
 - Developing and processing of photographs, prints
 - Drying facilities.
- K. Area: Administration - 150 square feet
- Accommodate librarian and secretarial help
 - Area for consultation with staff and public.

INDIVIDUALIZING AND PERSONALIZING INSTRUCTION

Individualized Instruction: An Overview

Ann Grooms

Rather than talk about the "how to" aspects of individualizing school programs, this presentation will address issues associated with the individualization of instruction itself. The issues to be discussed are:

School Programs Should Be Individualized
 Payoffs From Individual Instruction Are Worthwhile
 Individualization of Instruction Is Possible Worldwide

As a proponent of individualized instruction, each issue will be addressed from the positive point of view based on years of experience in implementing this type of program in hundreds of schools, both in this country and overseas.

School programs in the United States have been largely group instruction oriented. The United States more than any other country in the world has emphasized group instruction. This nation has had an insatiable demand for trained personnel for the past hundred years, and group instruction has made it possible to provide the large quantities of personnel required. The provision of trained personnel has not come without a cost in terms of large numbers of individuals who in their adult years find themselves performing work or engaged in professions that are unrewarding to them as people. Group education has served well with respect to enabling persons to sustain economically while perhaps failing in the task of living satisfying lives. The National Institute of Education has recently had a study conducted for it by a contractor who failed to discern any differences in content area performance between group and individualized instruction in select school districts. From the narrow view of student progress as measured by standardized tests perhaps the finding is valid, but from the perspective of future years the difference in the quality of lives lived by the students presently involved may be substantially different. Data available to us at Educational Services Institute from the hundreds of schools where we've worked indicate there is a difference in the growth in student progress as measured by the local district and in the attitude of students toward learning.

ISSUE I. School Programs Should Be Individualized

As a foundation out thesis must be ALL LEARNING is a PERSONALIZED PROCESS. Learning is an act that only the individual involved can perform. This fact became very apparent through a recent experience with a young child. The child learned to read at an early age. Her interest in reading was real. She enjoyed reading to others and being read to in turn. A greater part of her day was spent reading books. However, when she started school a definite change occurred in her behavior. She found that instead of reading being a natural activity it was something that one was rewarded for doing. If she read books from the library she was rewarded with a star. If she read any book other than the one other

children were reading at a particular time during the day, she was brought up short. In effect, the child learned that reading was not something that was done because she wanted to, but rather was an activity that served others. She has begun to **sense** that maybe reading wasn't such a good thing after all.

While such an elementary case of depersonalizing learning has been cited, there are thousands of these cases close at hand to each one of you. A much more flagrant depersonalization occurs at the college and university level. All of you are aware of students completing courses successfully and then shutting any further reference to the course material from their minds. The course material then is purged from the thinking of the student because the learning involved did not contribute to the meaningful life of the student.

The question can be rightfully raised concerning the performance of the student in dealing with the course material at any point in time prior to the time of taking the final examination. Would the student participating in the course where instruction was individualized perform better than the student subjected to group instruction techniques? The results of the previously cited National Institute for Education study say no. Many school districts in this country who have had individualized programs since the mid-sixties would say yes.

A valuable insight into program individualization is illustrated here. The insight being that the use of techniques usually associated with individualized learning may not provide learning benefits over group instruction in the short term if the student perceives the use of such techniques as merely being gadgets to get him to engage in learning which is not personalized. On the other hand, when students, teachers, and parents have entered into contracts based on individual diagnosis and the development of an individual educational plan is completed, the student then knows this program is his/her personal plan. Several examples can be cited as to how districts have approached individualized instruction.

A number of years ago we at Educational Services Institute worked with numerous school systems in the southern part of the United States. Many southern states had dual school systems up until the late 1960's. As a result of desegregation orders in 1964, school districts were forced to abolish schools for blacks and to provide integrated school programs. Dire results were predicted to occur from providing programs for black and white students in the same classroom. It was alleged that including the black students in the mainstream of education would lower the quality of the educational program offered. Our work with southern schools was directed toward development of programs which would provide for all students a means to a quality education. As a result of these efforts the schools in many communities were "saved", as described by the people living in the communities assisted. What did we do? We helped local educators design individualized school programs. Several of the slides you will see illustrate how the individualization was carried out. To be sure, many of the instructional individualization techniques which you will be hearing about in the small group sessions were all employed in most of the schools. However, the key to getting the job done was the approach employed with administrators, teachers, teacher aides, and community members. The programs being implemented were not invoked to satisfy a court order but to provide each one of the students with the best possible education regardless of race or background for all students. The program was for students. The program provided teachers with the opportunity to assist students in learning in a more effective manner than they had ever used in the past.

Another example. A school district in southern Utah began to develop a plan to individualize their K-12 schools in the late 1960's. This process took them five years before they could report that the needs of all students were being met. They have continued to refine their strategies and develop their materials to assure that each student's program is personally designed.

Before undertaking a program in a school district as just described, one has to know a school system -- administrators, teachers, students, parents, and the community as well as facilities and materials. This knowledge is imperative whether the district begins to design/implement such a program and it is doubly true if that district seeks outside assistance from an organization such as ESI since they too must have this knowledge base. In short, all concerned must know a school system before any attempt is made to develop educational programs. When programs were initiated, then there are fewer surprises.

School programs should be individualized. We have helped to establish individualized programs in hundreds of schools and have been successful when judged by many criteria. The one that satisfied us most, though, was being successful from the student's vantage point.

Remarkable gains have been made in short periods of time especially in reading and math for most students. Performance gains of up to a full year occurred in the matter of several months for many students. Even more remarkable, the gains were made in many instances in classrooms of teachers themselves who were convinced that their students lacked the innate capability to read and compute. This was true in many of the schools where black students were placed in classrooms with white children. Success is not easily obtained nor can similar progress be made in all schools, yet to date schools across the country are reporting that as they refine their programs students are receiving a better education.

The most significant fact that stands out is that individualization of instruction is workable even when school staffs start with poor understanding of how it can be carried out provided that the individualizing is accepted by the student as an approach that will help him/her to learn better. Many students want very badly to learn. The group instruction to which they had been subjected has shut them out of the learning situation. Group instruction utilized has been basically for the teacher's benefit. In an individualized program all instruction is initiated for the students, for each student. The learning achieved by each student is important. Students learn that they are not expected to accommodate to the materials and teaching methodology employed but the materials and methodology is adjusted to fit their requirements. When learning/teaching is approached in this manner, students soon adopt a different feeling toward the schools' purpose.

ISSUE II: Payoffs From Program Individualization Are Worthwhile

The second issue to be discussed is that payoffs from program individualization are worthwhile. There is little doubt that public education in the United States is in trouble. The trouble comes in many unique forms. Some forms can be tolerated, others cannot. One of the least tolerable is lack of adequate financial support. In most school districts in the United States schools are primarily supported by local real estate taxes. Residents of school districts are becoming more reluctant to increase the taxes to be levied upon them to support the schools. At the same time that school districts are finding fiscal

resources harder to obtain, school district employees, both certified and uncertified, are seeking higher wages, smaller teacher loads, and more fringe benefits. Since the teachers have become unionized in many districts it has become more difficult to refuse their demands without facing teacher strikes and school closings. The dichotomy between school revenue availability and financial requirements is rapidly driving the schools into a hopeless situation. Financial obligations can't be met. To illustrate the criticalness of the situation, schools in Toledo, Ohio were forced to close for several months during the 1976-77 school year. Cleveland, Ohio's schools will shortly terminate school operation until after the beginning of 1978. Cleveland is one of the nation's ten largest cities. Nor are large cities the only ones affected. Teachers in a small northeastern Ohio school district recently caused the school board to acquiesce to wage demands (which cannot be met) in the face of strike conditions. The district's schools will be forced to close before the required school term is completed in the Spring of 1978.

How does individualization of programs tie into this distressing scene? The answer is that ways must be found to reduce the percentage of the school district budget earmarked for wages and salaries. One possible means is through program individualization.

Program individualization has been typically thought of as requiring more rather than less personnel. This resource concept stems from a misconception of what program individualization should be. In many cases individualization typically has come to mean giving Johnny an added piece of busy work to do while the rest of the group of which Johnny is a part completes the assignment also. That practice is not program individualization. Nor is program individualization assigning thirty different reports to a class of social science students. No! That is not program individualization. It may be individualization of instruction in a limited sense but it is not program individualization. Let us look at the nature of program individualization. Program individualization is the structuring of the program in a manner that all students have an opportunity to benefit through its study. Jerome Bruner once wrote that it is possible to teach anyone anything.¹ That statement is and has been an enigma to the educational community. Bruner seems to be saying that it is not the particular discipline that is difficult to learn but rather that the tools and techniques available for the student's use in becoming a disciplined scholar are inadequate. That is the idea espoused here. If program individualization is to be a reality then appropriate equipment and material must be generated to support it.

Again referring to the work of ESI in regard to program individualization, we have tackled the job of creating individualized programs for the basic skills. The first step in the effort is the identification of all the knowledge and skills required to enable an individual to possess those basic computation capabilities required to live in an industrial society in the twenty-first century. This work has been carried out over the period of several years. The skills have been organized into a logical continuum which can enable a student moving through it to master each skill prerequisite to learning the next higher one. While the next phase of the work has not been completed it will invoke the generation of activity paths to be employed in mastering the skill. Several of the small group presenters to follow this session -- Evelyn Hill, Muriel Lundy, and Mike Ward -- have given considerable thought to the development of skills continuums and Eugene Howard has worked closely with networks of schools who are developing individualized programs.

¹Jerome Bruner, Toward a Theory of Learning (Cambridge, Massachusetts: Harvard University Press, 1966).

An individualized program then is a complete one that enables the student to start at its most basic element and to acquire sequentially necessary capabilities until mastery of a discipline is achieved. Contrast that approach, if you will, with the fragmentation of the curriculum that occurs in education today. Math, for example, is divided into many subjects and courses throughout the twelve school years in our schools. We have students learning addition, subtraction, multiplication, division, square root extraction, algebra, etc., as separate processes. Parents revel at a child's "A" in arithmetic at the third grade level and condone the "C" grade in algebra without the least idea of what either evaluation means in terms of eventual mastery of a discipline with which the subject or course is associated. Neither the parents nor the student know where the student's learning efforts are going or what the results will be. An individualized program on the other hand would enable the student's progress to be observed as he moves toward discipline mastery.

With program individualization a new approach toward school staffing is possible. The student moves toward discipline mastery along his own activity route, the route best suited for him at his particular state of development. A master teacher who is highly skilled in how students learn and in the discipline can be made responsible for the progress achieved by many students. The teacher's knowledge of the discipline will enable him/her to detect early signs of difficulties when they occur and enable corrective changes to be made in the activities which the student engages. The master teacher can be supported by other personnel, both certified and non-certified, to assure that individual students are making that progress which is appropriate for them to make at a given time.

With regard to the issue, "Payoffs from Program Individualization Are Worthwhile", there are at least three payoffs which can accrue from program individualization that have been identified. They are:

- . Improved educational opportunities for students;
- . Improved student performance;
- . Lower instructional costs.

A review of each of these is important. First, improved educational opportunities results from individualizing the school program to enable all students to participate in all parts of it. There are no preserves reserved for the very talented and no tracks set aside as a dumping ground for students "who don't seem to have the capability to cope with academic subject areas." As the words stated by Bruner alleged, anything can be learned by anyone. The individualized program makes it possible for any student to start learning in any of the discipline areas that the school program offers. Employing the individualized program the school would not anticipate that all students will move through the discipline areas at the same rate. Some students may be able to travel through discipline activities at a rate several times faster than another. The faster student will be free to complete his studies in the discipline area and proceed to other areas that hold interest for him and tie into his growth plans. The student who moves slowly is not penalized because of his slower rate of progress. He is able to continue working in the area until mastery is achieved or until such a time as he decides that he has mastered that part of the discipline that is important to him. Your small group leader, Eugene Howard, will describe for you his program at Ridgewood. Columba Kaufman, who prepared the paper on Individualized Reading, and unfortunately was unable to be here but her presentation will be published in the proceedings, gives details of a specific discipline, reading, that has been individualized in the Norwalk-La Mirada Schools.

Improved student performance is the second payoff from program individualization. You will recall that early in this presentation we discussed student expectations, saying that student performance does seem to be affected by what the teacher expects of the student. The individualized program you have seen in the slides was configured so that students were expected to succeed. Teachers do not enter the teaching situation with the idea that some percentage of the students must fail regardless of their capabilities. The expectation is that the individualized program will enable all students to master all or some aspects of the discipline. Remember, all disciplines are composed of skill continuums rather than being made up of an unsegmented collection of courses. In the individualized program the student is engaged in the act of acquiring skills sequentially that eventually enables him to master a discipline. Rather than being evaluated upon ability to satisfy the requirements for a particular course the student's progress relative to the acquisition of skills is analyzed to the end of enabling him/her to make further gains in the discipline. A student in a conventional history course might be considered a failure by his instructor. Contrawise, in the individualized program a student having difficulties acquiring the necessary skills will not be considered a failure. The skills with which the student is having difficulty are but steps along the way to his/her mastery of history or of a segment of history (American). The student has not failed. An analysis of the student's progress will be made. Other activity networks will be generated to enable the student to overcome his/her learning difficulties. Yes! Improved student performance accrues from the use of individualized programs. How can it be otherwise?

The third payoff obtainable from the employment of individualized programs is reduced instruction cost. Using a learning continuum for the individual student will reduce the cost, since special remedial classes will not be needed. Not only that, but with the learning continuum going with the student as he/she progresses through the K-12 program, as much as six weeks of instruction time each year can be gained by teachers not spending the first four weeks of school reviewing and the last two weeks of school preparing students for the next class placement.

It is also necessary to keep in mind that a different concept of school staffing is involved. It makes use of the master teacher with a staff made up of both certified and non-certified personnel. The idea of the master teacher has been introduced periodically over the last two decades. Teacher organizations are strongly opposed to the idea and with good reason. Both the overall quantity of certified teachers and their numbers at the higher steps of salary schedules will go down with its use. As the percentage of school revenue required to pay school personnel goes down, larger amounts of funding will become available for some areas that have been stymied for too long a period; for example, material acquisition. By implementing the individualized program with its vertical look at discipline skills it is possible to establish a staffing program that will provide student learning support at critical places in the program. For example, the learning of all skills within a discipline are not all of the same degree of difficulty. In those areas where highly qualified instructor capabilities are needed, master teachers can be employed. On the other hand, when skills are being acquired by the student in which he/she needs relatively less support from the instructor, use of less heavily trained teachers are suggested. Use of peers and paraprofessionals in some learning situations may well be appropriate. Thus through the operation of an individualized program instructional costs should decrease while at the same time improved instructor support is provided to the student. The latter situation ought to be attractive to all persons responsible for the management of school resources.

ISSUE III: Program Individualization is Possible Worldwide

The third issue to be addressed is "Program Individualization is Possible Worldwide". Up to this time those of you in attendance from countries outside of the United States may feel that the discussion has been prepared only for educators in this country. Not so in the least. The illustrations taken from American schools were selected because of first hand knowledge of many schools. However, extensive travel throughout the world and working with numerous schools in Spain, Iran, and Mexico also demonstrated that individualized programs can and are being developed equally well in a centralized school system such as currently exists in Iran to the more complex systems existing in Great Britain and the Federal Republic of Germany. This is not to say that respective Governments will authorize those changes necessary to permit full implementation of individualized programs.

For those of you intent upon returning home to embark upon activities that will lead to the implementation of individualized programs, there are some guidelines that should be followed:

1. Develop the program in detail that you wish to individualize.
2. Generate an action plan for implementing the individualized program.
3. Assure that you have the resources necessary to conduct the program over a sufficiently long time to make a valid assessment of its worth.

GUIDELINE: Develop The Program In Detail That You Wish To Individualize

Don't underestimate the task that lies ahead, and develop a complete set of program details that are very specific. Begin with a knowledge of the conditions existing within the school system. Determine where you are. If you don't know, then a program audit is your starting point. Many districts contract for an outside third party audit that will give them a data base for building a program. Next you will need to clearly establish your objectives for individualizing the program. Objectives should be stated as clearly as possible. Try to write them so that they can be measured. At this point in time it is well to see how well your program objectives harmonize with the objectives for your school system. If they cannot be accommodated, some action should be taken to bring the objectives into alignment before your program specifications are prepared. Having aligned your program objectives, you should identify the criteria to be used in evaluating program performance. It is very important that the criteria to be met by program operation be understood before you initiate the preparation of the program specifications.

Your program specifications must be prepared in sufficient detail so that when it is implemented the probability of performance criteria being met is high. Each part of the program should be defined. Requirements for materials, facilities, instructional methodology, and staff will have to be called out. Any interfaces with other parts of the school program should be stated.

GUIDELINE: Generate An Action Plan For Implementing The Individualized Program

After the specifications for the program are completed, you will need to generate an action plan that guides in implementing the program. Your action

plan must identify all the events and activities that must take place if your program is to be implemented. The plan should be as complete as possible to assure that all the requirements identified in the specifications for materials, facilities, methodology, and personnel are available in the form and of the quality specified. A detailed action plan is mandatory before any program is to be implemented.

GUIDELINE: Assure That Needed Resources Are Available To Conduct The Program Sufficiently Long To Make A Valid Assessment.

This third guideline is tantamount to saying don't start the program unless the resources are going to be available to support it. For several years the United States Office of Education provided support for innovative programs under Part III of the Elementary and Secondary Education Act. Federal funds in some cases were made available for up to a three year period after which the program was to be sustained by the school system. This proved not to be effective. The programs expired when the funding was withdrawn. Teacher Corps Programs are now providing assistance over a five year span for their programs and this has proven to be more successful. If individualized programs are to prove successful, they must be given a fair chance to demonstrate that criteria established can be met. That is to say that any school district building a program must be prepared to extend their effort over a period of years, preferably on the order of five to seven years.

You have viewed slides of school programs that have individualized programs. You have been presented the pro side of the issue. May I conclude with: individualized programs can make contributions to school systems operating anywhere throughout the world; they do make major contributions in the form of improved educational opportunities for students served and improved student performance for resources expended. When you begin to consider individualizing programs in your districts, reflect upon the guidelines that have been suggested. These will give you a structure for a sound beginning.

Evaluating Student Progress In Individualized Instruction

Herman Sims

Purpose Of Evaluation In Individualized Programs

Individualized education is an attempt to achieve the maximum learning potential of a student with the educational environment. The student and the teacher are engaged in the learner's education to match his learning style with the necessary skills, concepts, generalizations, and strategies essential to a basic education.

Individualized education focuses on the learner's abilities, interests, motivation, goals, self-discipline, strengths, and weaknesses. The teacher assumes the role of facilitator, diagnosing and prescribing projects, activities, and resources. The individualization process places the emphasis on the student's responsibility to actively engage in his own education.

According to Dr. Anne W. Carroll, individualized education is a continual process involving: (1) the dynamic interaction of the student and the learning environment and includes a congruence with the learning environment, (2) emphasis being placed on motivation, and (3) the development of skills as needed rather than in predetermined instructional sequences.¹ Dr. Carroll suggests that in the individualized program, the teacher must assess each student's situation with specific reference to what the student can and should be learning and how to facilitate such learning.² From the assessment plan, the instructor can develop the individualized plan.

If the learning plan is to be truly individualized, it is paramount that the evaluation program assess the whole child. It has been urged by many authors such as Rita Dunn and Kenneth Dunn,³ Philip Kapfer and Glen Ovard,⁴ and James Duane⁵ that the evaluation process should include provisions for assessing the child's total growth and development. Such evaluation programs call for the assessment of the affective, cognitive, and psychomotor domains, creativity levels, and social maturity. Evaluation seen in this light is more than measurement; it should be the basis for diagnosing individual needs, prescribing programs to meet the diagnosed needs, and assessing the individual's progress in an educational environment. Evaluation in the personalized curriculum may be described as a spiral process beginning and ending with the student's needs.

The learner is assessed. The assessment is both formal and informal. From this the educator will hypothesize what the needs are of the individual. The hypotheses is then the basis for the learner's program; appropriate instructional strategies are implemented with the learner being assessed. The learner and his needs are supreme; the curriculum, teaching strategies and activities are all for him.

In addition to appraising the student's progress in a program, evaluation in individualized programs may also serve to assess the educational effectiveness of the curriculum, materials, procedures, and/or organization patterns. Before introducing the individualized approach, teacher abilities, administrative abilities, facilities, resources, and the community should be analyzed for input in the needs assessment phase. Evaluation must continue during the implementation and final phases of this process. Continual evaluation is important when insuring a child's education in the individualized approach.

If the goal of personalized instruction is to develop individual's who seek opportunities to learn, set their own goals, take part in planning a program, and participate in evaluating the program's success, then, the evaluation process must be in cooperation with the teacher and the student to enhance the learner's

¹Anne Welch Carroll, Personalizing Education In The Classroom. (Denver: Love Publishing Company, 1975) p. 19.

²Ibid., p. 27.

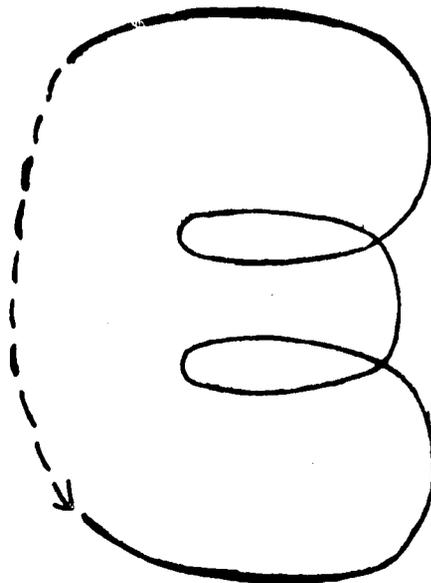
³Rita Dunn and Kenneth Dunn, Educator's Self-Teaching Guide To Individualizing Instructional Programs. (West Nyack, New York: Parker Publishing Company, 1975) p. 94.

⁴Phillip Kapfer and Glen Ovard, Preparing and Using Individualized Learning Packages. (Englewood Cliffs, New Jersey: Educational Technology Publications, 1971) p. 152.

⁵James Duane, Editor, Individualized Instruction: Programs and Materials. (Englewood Cliffs, New Jersey: Educational Technology Publications, 1973) p. 13.

instructional situation. Assessment cannot be stagnant; it is integral and continuous. No assessment tool can stand alone; it must be used in conjunction with the total program to evaluate learner, educator, curriculum, program, and facility.

The Spiral Process of Assessment



Re-assess Student's
Needs, Growth, and
Development

Select Teaching Strategies
and Learner's Program

Hypothesize Program
To Meet Individual
Needs

Assess Student
Formally and Informally

Evaluation Techniques and Their Uses

In the individualized program, both teacher and student participate in the student's evaluation. Evaluation does not necessarily mean a pencil-and-paper evaluation at the close of a chapter, unit, or program.

The personalized curriculum which uses a contract system has self-testing built into the program. As a student progresses and masters his objectives, he requests the appropriate tests, guidance, and conferencing to demonstrate that his tasks are completed. With contracts, a student assesses himself periodically to examine what he has learned, how well he has learned it, what he must yet master, and how long he may expect to be on a particular task. After all the self-checks are completed, conferences held, and guidance suggested, the student may request the test for an objective. If the student does not successfully master the test, the educator should redirect and facilitate the student to redefine the activities in his objectives. If the objective is important enough to prescribe, then it is important to master completely before proceeding.

A contract with self-checks is one example of an evaluation technique used in individualization. There are many more; among the most often used techniques are: pre-tests, post-tests, observation, attitude surveys, and group projects.

The pre-test is given to the student by the teacher. It is a method of evaluating what experiences a student is bringing with him to a class. The pre-test should evaluate the cognitive and affective domains about a given topic. The results of a pre-test are used by the instructor and the student to diagnose and prescribe a learning program.

EVALUATION TECHNIQUES

IV - 11

Types of Evaluation	Domains						Appropriateness
	Cognitive		Affective		Psychomotor		
PRE-TEST	Paper and Pencil a. intelligence b. formative c. summative d. self checks e. criterion-reference f. norm-reference Cumulative file	Conferences Interview Oral Surveys Self Checks Past report Cards Cumulative file	Observations Attitude Surveys Likert Scale Parent Conferences Cumulative file Learning Style Questionnaire	Conferences Interviews Observations Oral Survey Discussion Groups Cumulative file	Manipulative Skills Token systems Cumulative file Physical Activities	Observations Self Check Cumulative file	Use
							Frequency
POST-TEST	Paper and Pencil a. standardized b. intelligence c. formative d. summative e. self checks f. criterion-reference Learning Activities	Conferences Interviews Oral Summaries Self Checks Learning Activities Group projects	Observations Attitude Surveys Likert Scale Parent Conferences	Conferences Interviews Observations Oral Survey Discussion Groups Self Check	Manipulative Skills Token systems Physical Activities	Observations Self Check	Use
							Frequency
	formal	informal	formal	informal	formal	informal	

A second means of assessing is through self-checks. A self-check is taken by the student to determine progress in a given task. The results of a self-check are used by the student in conference with the teacher to redirect a learning effort within the learner's individual program.

Post-tests are given by the teacher after a task or objective has been mastered by a student. Only when the student is ready for the post-test, is one administered. The object of the post-test is to measure growth and to direct a student in his next tasks.

The pre-test, self-check, and post-test are not exclusively paper-and-pen examinations. Many variations may occur depending on the learner's style, objectives, and activities. At all times, appropriateness is the key to designing these assessment tools.

Observation techniques are commonly used in individualized program. These range from formal checks to informal notes. The purposes of observations include: monitoring a student's social interaction with both adults and students, watching psychomotor skills and abilities, and recording a student's interests and attitudes about school, people, and other important components in a child's total growth.

Observation techniques are commonly used by supervisors and students as well as teachers. A teacher may assign a student the task of watching his peers during a discussion and to list some of the activities he sees. This use of observation may be to point out non-verbal gestures, increase one's sensitivity to people, or for other social and communicative skills.

Selection Criteria For Evaluation Techniques

It is the author's judgment that two basic types of evaluation exist, pre-tests and post-tests. The pre-test serves the teacher and student to assess prior experiences, skills, and information. Pre-tests determine future programs and directions. Post-tests are for checking growth, mastery and completion of specific tasks and objectives. They too are used for future goal setting.

Both assessment tools address the three domains of cognitive, affective, and psychomotor. Each of the domains may be measured with pre- and post-tests in a formal or informal way. Pivotal to the implementation of formal or informal assessment is the intended use and frequency of the type of measurement selected by the instructor.

For example, if a teacher is desirous of measuring a child's ability to work within a structured or unstructured situation, the affective and psychomotor domains must be formally and informally assessed. In this example, the teacher must question, survey, and observe the student. The questionnaire should ask about the environment (lighting, temperature, seating arrangement, and classroom design), and likes and dislikes about types of people with whom the child can or cannot work.

The intended use of the evaluation is to measure attitudes, preferences, comforts, and distractions. The types of evaluation should be selected to describe the needs of the student. In addition, the teacher must determine the frequency with which these types of assessment tools are used.

Appropriateness is the key to the selection of evaluation techniques. The type of evaluation, domain, and frequency must be considered. All levels of evaluation are for diagnosing a learner's needs and assessment of the student's social and intellectual development.

The Ohio Department of Education, in its publication, Testing Handbook: A Guide For Establishing An Effective School Testing Program suggests the following test selection criteria to meet local and individual needs. The form is a formal assessment which can be used with teachers and administrators to evaluate published tests. "H" is highest priority, "M" is medium priority, and "L" is lowest priority. These items should be considered in terms of the program's intent.

Test Selection Criteria

Circle One:

- | | | | |
|---|---|---|---|
| H | M | L | 1. Cost per student including materials and desired scoring services. |
| H | M | L | 2. Total amount of time necessary for test administration. |
| H | M | L | 3. Ease of administration (e.g., can be given by teachers). |
| H | M | L | 4. Recent and appropriate norms (i.e., for different times of year and for groups of students similar to yours). |
| H | M | L | 5. High reliability and validity for the purposes in local testing program. |
| H | M | L | 6. Accurate and prompt scoring services (where appropriate) of ease of scoring by hand (if appropriate). |
| H | M | L | 7. Format of test booklet and answer sheet. |
| H | M | L | 8. Relevance to local instructional objectives and/or curriculum. |
| H | M | L | 9. Provides data and reports which can assist in meeting adopted purposes. See the consensus check list of purposes (Phase 4) and the "Guide for Matching Purpose with Report" (Phase 5). |
| H | M | L | 10. Availability and quality of orientation and interpretive materials. |
| H | M | L | 11. Availability of norms established by the same group taking the same achievement and ability tests at the same time (concurrent norms). |
| H | M | L | 12. Availability of alternate forms. |
| H | M | L | 13. Availability of publisher consultants for inservice meetings. |

Add any others that you feel are important:

H M L 14.

H M L 15.

In addition to criteria for evaluating test selection, the Ohio State Department of Education suggests the following criteria for the purposes of testing. This check list may be adapted to an individualized learning program.

Check List of Purposes for Testing

<u>Check If Important:</u>	<u>Indicate Grade Level(s):</u>	
_____	_____	1. To screen for students who may need special assistance.
_____	_____	2. To screen for students who may benefit from a program for the academically talented.
_____	_____	3. To group students homogenously by class.
_____	_____	4. To group students according to achievement levels in small groups within a class.
_____	_____	5. To identify weaknesses in the basic skills which may indicate a need for revising instructional objectives.
_____	_____	6. To assess student mastery of instructional objectives in the basic skills.
_____	_____	7. To assess class/group mastery of instructional objectives in the basic skills.
_____	_____	8. To provide information for students to use as they select courses.
_____	_____	9. To place students in a particular course or program (using cut-off scores for example).
_____	_____	10. To help students use data from areas such as interest, achievement, aptitude, and ability in career exploration and decision-making.
_____	_____	11. To evaluate a particular program, course, or curriculum.
_____	_____	12. To evaluate the performance of students in a particular building or district in a specific content area.
_____	_____	13. To meet the State Board of Education's minimum standards.
_____	_____	14. To identify and recognize individuals who demonstrate outstanding academic achievement.
_____	_____	15. To determine course grades.

- | | | |
|-------|-------|---|
| _____ | _____ | 16. To organize for and report to the community (e.g., parents, school board). |
| _____ | _____ | 17. To evaluate research projects or experimental program. |
| _____ | _____ | 18. To counsel students in personal-social development. |
| _____ | _____ | 19. To meet external educational requirements (e.g., college, joint vocational school). |
| _____ | _____ | 20. To identify weaknesses related to content areas other than in the basic skills (e.g., American history, physics) for use in modifying instructional objectives. |
| _____ | _____ | 21. To assist in formulating program objectives in non-content areas (e.g., guidance, career education). |

List any others which may be important for your district.

- | | | |
|-------|-------|-----|
| _____ | _____ | 22. |
| _____ | _____ | 23. |

Diagnosing Learning Needs And Prescribing For Students
Michael Ward

The last decade has seen an increasing pressure on educational training institutions to provide education or learning situations to the students for better understanding, adjustment, and individualized development to fit the present day world of work. There has been an increasing demand by the parents and the students for the system which is and will be relevant for their present and future needs. Parents have begun to insist that their children acquire competencies which will help them cope successfully with life roles.

In order to develop any individualized instruction system, four major steps must be taken: (1) an assessment of the needs of the population to be served to determine what goals exist within the community, (2) establishment of a system to provide those skills and competencies the community has defined, (3) assessing and diagnosing learning needs of students, and (4) prescription for treatment of learning needs.

Needs Assessment

The recent determination of educational goals for the Pine Ridge Indian Reservation Schools is an example of how a school system can benefit in a variety of ways from parent, students, and teacher involvement in policy establishment. Despite change of personnel, community upheaval resulting from political instability, and lack of research experience in some areas, the assessment of educational goals provides a useful and proven model of a needs assessment application and use within a school system. The process was

by no means without complications but definitive results were clearly realized. This explanation of the process may help others recognize the need for such a process within their schools and provide some guidelines for successful implementation.

Defining Goals

The need to define goals was recognized in a meeting of school board members, school administrators, and education directors. The process of defining goals began with a brainstorming session in this same meeting to come up with what they thought a pupil should know before leaving high school. After much discussion they decided upon several goal areas, i.e., general categories of knowledge. The goals as defined by administrators were compiled, printed, and distributed to teachers to review and make additions. At the end of the school year a small group of people compiled the results of all the information gathered from school personnel involved thus far. Much time was spent in categorizing the suggestions made. Finally, eleven (11) goal areas were developed with several subareas of knowledge to be taught under each goal.

These goal areas were compiled in an easily readable form which served as the basis of a questionnaire or needs assessment form. Since it was felt there may be a tendency among people to agree with whatever goals were presented, a ranking procedure was used. In the ranking process, people must make judgments and choices about what is most important. It was pointed out that all eleven (11) areas may be important and should be taught but that it was desired to learn which areas were most important so that these could be given priority in future planning.

Once the questionnaire was finalized it was distributed to a sample population of the school community including teachers, students, and parents.

The results are then analyzed in several ways. Priorities were established (based on the average ranks given the goals) for (1) all the people who completed the questionnaire, (2) the parents only, (3) the students only, and (4) the teachers only. The same was done for each community which participated and each group within each community. Comparisons were made of Indian versus non-Indian priorities, and significant differences among groups were determined.

Development of a Basic Skills Continuum

Following the process of determining the educational goals of the community the second phase of individualized instruction began. Timelines and specific activities were established along with re-evaluation checkpoints. Committees were formed for actively pursuing the building of K-12 skills continuums and establishing more definite course requirements at the secondary level to obtain jobs or continue their education beyond high school.

Initially, other schools and organizations which were building skills continuums or tracking systems were contacted to provide information. Such information helped speed up the process and eliminated some of the common errors made in instituting such changes.

Continuum building committees were formed with a representation of teachers from each of the eight schools involved and the other professionals who had shown organizational skills within the school system. It was important that teachers had control of continuum building processes as historically, teachers had withdrawn when "outside" curriculums were imposed upon the system. Emphasis was given to the fact that all materials were developed by the teachers of the Pine Ridge Reservation in order to provide long range impetus to the development and use of continuums in the school system.

Monthly meetings were held with committee members to assign specific tasks for further development of continuums and to review materials developed. All materials were reproduced for use in reservation schools throughout the developmental process so that practical application remained the major consideration.

The basic skills continuums were developed for preschool through grade twelve and identified those skills needed to attain proficiency in communications, mathematics, and other goal areas. No grade distinctions were used within the continuum but mastery of skills was emphasized.

Upon completion of a continuum, a copy was provided for every student in the Pine Ridge Schools. These were to follow the skills development of a student from the time he entered the system until he had completed his educational training. Implementation produced several benefits not anticipated during the developmental stages: (1) continuums clarified for parents what their children were doing in math rather than the vague grades previously reported to parents, (2) continuums clarified for new teachers the expectations of the school and community, (3) students transferring within the school system lost no learning time as their new instructor knew where they were in their skills development, and (4) the continuum process developed a unity amongst instructors.

It must be emphasized that basic skills continuums clarified what should be taught but left teaching style and the creation of a learning environment to the discretion of the instructor and teaching supervisor. Also, the continuum remained open-ended for the addition of skills deemed appropriate for a specific student or need.

The Pine Ridge project influenced the development of programs at United Tribes Education Center in Bismarck, North Dakota. This center is a year-round program that seeks to provide educational assistance to the total family. Every family member learns together at United Tribes. Parents are within walking distance of the early childhood center and the elementary school. The center begins with educational programs for the three-year old child to the parent in a post high school program for a 12 month period. The total program from the small child to the adult is based on an individualized approach to learning. This 12 month learning center is the only Indian owned/operated school in the United States for native Americans with a focus on learning from its early childhood center to its post secondary training for adults in vocational, personal development and adult education.

Assessing and Diagnosing Learning Needs of a Student

The Pine Ridge Schools and the center at Bismarck both moved into the third phase of implementing an individualized instruction program developed along the lines of a basic skills continuum. Individual student assessments became the most

significant point in the application of the continuum.

Once defined, basic skills depend solely upon the practical application within the classroom. The diagnosis determines where the student is on the skills continuum and what the student knows or does not know about specific skills, thus identifying the student's trouble area. Systematic analysis of the child's learning behavior is also part of the diagnosis. This analysis includes the student's past and present learning performance and the psychological capabilities for learning as well as the preferred mode of learning; interests, attitudes, and motivations; and his/her concept of self as a learner.

Five sources of information are available to most teachers and are used to assess where a student is: a, is standardized test data; b, is teacher-made tests; c, a structured conference with the student's former teachers or other staff members; d, a work sample test; and e, a teacher-student conference.

A teacher developed profile can be utilized for initial placement on the learning continuum but once placed, a student's progress will be clear to teachers who continue the basic skills process.

A constant monitoring of student progress needs to occur so that the student knows what progress he is making and that appropriate materials will be available for him in the classroom. Teachers must be involved in the periodic evaluation process so that the student will get some feedback on achievement; has a personal one-to-one contact with the teacher; and has a regular monitoring of his learning process so that he will reach the established learning goals set for him.

Anecdotal records become the major factor in on-going evaluation of student growth. The one-to-one progress checks made by the teacher provides invaluable information in the process of developing an individualized learning program. The continuum included a space by each skill so that appropriate dates and anecdotal information on degrees of success, further review, or mastery might be noted.

The operations involved in obtaining essential information about a learner, and in analyzing that data are important only so far as that data is balanced against a specific set of performance standards such as those developed by teachers on the Pine Ridge Reservation. Prescriptive learning hinges on the diagnostic procedure yet the process used at Pine Ridge and United Tribes, with its five elements, must be flexible to meet learning and performance needs of the individual. Throughout the process of individualized instruction there must remain flexibility in diagnosis so that teachers may respond as an individual to the uniquely individual needs of each student.

Prescription and Treatment

After a diagnosis is made for the young student or adult, a prescription is written, based on the diagnosis and aimed at achieving established curricular objectives. It is a recommendation of skills that need to be mastered; and strives to match what the student needs to learn, the way he/she will learn it best, and the variety of material, people, and procedures that will make that learning happen.

Prescriptions are geared to the way the student learns best. Each prescription calls for visual, auditory, and kinesthetic activities. While some may respond to one approach at least two types of activities are needed in the prescription to assure that the skill is learned. Prescriptions may be written as a contract, task sheets, and/or on prescription cards. The prescription may be for an individual, or small group (having the same needs). They may vary in length of time to accomplish from twenty-minutes to those to be completed in a day or weeks. With younger students, prescriptions should be short and should be completed in a specific time period of not longer than thirty minutes. Students grades 5 - 8 may be trained to handle a prescription for a day or two. The teacher, during diagnosis, will find what the time period is that suits the individual best. Generally, this mode of operation fits the student's life style and can be identified early and planned for. All students, even the adults at United Tribes Education Center, may need to have continuous reinforcement as they work through a prescription. Few adults or young students work well without direct and frequent intervention from their instructors. Prescription calls for as much directive teaching as the student seems to need.

Activities prescribed should be understood by the student; should be related to his/her needs, abilities, and interests; should tie in with the skills, learning, and content being dealt with; and should be purposeful. In an individualized situation the teacher is always available to serve in a directed learning activity, to help with questions, and to assist in problem situations. Next, a contract is set up by the teacher and student together. This is a commitment on the part of the student to perform the prescription and is an agreement on what is needed and what will be done.

Once the student has fulfilled the contract an assessment is made. The assessment measures individual student progress by comparing work to past performances and does not evaluate the student by comparing him/her with others or with school or national norms. If the student is proficient with the skill, other skills are prescribed and the student moves ahead. If the proficiency level is still unacceptable, the student is recycled through other modes of treatment and reassessed when he/she has completed the work on the new contract.

There are an infinite number of ways to carry out individualized instruction. Variations depend on circumstances such as the available physical plant, available materials and equipment, available personnel, teaming situations, administrative policies, teacher personalities, community needs, and student body characteristics. However, they all seek to develop independent behaviors. Students begin to learn to organize their own work and understand how best to use their time. They learn to make choices and to think, investigate, and study on their own. They develop an understanding of their own capabilities and strengths.

Summary

Diagnosing learning needs and prescribing for students should be the mission of all educational programs. The Pine Ridge/United Tribes Education Center only serve to show what has been done in those two places. These ideas are transferable to other schools and the four major steps should be taken by all those schools no matter in what part of the world they are located. Each step can be customized for each community. Carried out consistently over the period of the 12-14 years a student may be enrolled in public schools, the quality of learning will improve for each student.

Role Of Administrator In The Individualized Program

Muriel Lundy

When a system of individualized instruction is instituted, each principal must establish a management system whereby the physical, social/emotional, academic, and learning style needs of pupils and teachers are attended to. These properties of individualized instruction must be the foundation upon which each separate function of the management system is developed. The functions of management include planning, organizing, directing, and controlling. The development of each function in relationship to the individualized program will be considered separately.

The planning function is more easily dealt with by dividing it into two components: planning concepts and action plans.

The conceptual component of planning comprises the areas of identification of goals and responsibilities, identification of performance criteria, identification and selection of courses of action. The principal should attempt to define job tasks which will fulfill the responsibility and arrive at an understanding with the superintendent's office concerning the acceptability of the interpretation.

The next step in conceptualization is to identify alternative courses of action which, when implemented, result in the job tasks being accomplished and the responsibility discharged. A minimum of two conceptual plans should be generated for each responsibility. After alternative plans are developed, each is assessed by predicting the performance of the plan under the conditions which will prevail when it operates.

When planning for a program of individualized instruction, one of the considerations in assessing alternatives must be the physical and organizational structure of the school. For example:

- Are the classrooms self-contained?
- Are there useable open spaces in the building?
- What unused space is there?
- Do teachers work in teams?
- Is the school/curriculum departmentalized?

The staff and faculty should also be considered. Their strengths and capabilities should be taken into account as well as areas in which development is required. Materials for instruction are another matter for consideration, both consumable and permanent. An accounting should be made of those that are on hand and those that are needed.

In predicting the performance of a conceptualized plan, what is to be taught is an important factor. Curriculum content, the skills continuum, sequencing of curriculum, cycle of curriculum (especially in social studies and science) ought to all be examined in relationship to the proposed plans.

The principal should also take into account what community support is needed for the plan contrasted with community support which presently exists. Central office support should also be scrutinized. What resources are offered in terms of budget and moral support? What is the ability of the central office

staff to comprehend individualized approach to instruction? Finally, the principal must look at new roles he/she will be expected to play as facilitator, organizer, helper, and counselor for all staff and faculty members.

The selection of the preferred conceptual plan can be aided by focusing on areas of differences between/among alternatives.

Once planning has resulted in the selection of a conceptual plan, the principal has the task of preparing a detailed plan (or action plan) that enables the job task to be accomplished. The action plan reorders the conceptual plan into activities that must be carried out to achieve the required results.

Action plans for individualizing instruction are developed by the principal or in conjunction with the staff. They are prepared to provide detailed plans for accomplishing the job task for individualizing the program.

A common format for action plans is given below. Since action plans are the working tools of the principal, he/she is at liberty to determine what will be included in them. The following format is comprehensive enough to include all information that the principal will later need when he/she attempts to implement the action plan. The format has six sections:

Scope. The scope section of the action plan identifies the bounds for the action plan. As a minimum, the scope sets forth the job task for which the action plan is being prepared. It should also note the performance criteria for the individualized program that must be satisfied.

Action Plan Details. The action plan sets forth all of the details that must be implemented if the job task of an individualized program is to be achieved.

An effective approach toward identifying the events and activities is to start with the identification of the major events that must be accomplished. After the major events are determined, it is necessary to identify other events that are associated with each of the major events. An activity is then associated with the accomplishment of each lower level event.

After activities are identified, it is necessary to determine how long it will take to complete the activity and to identify how the activity will be accomplished. Estimating how long it takes to complete an activity will enable a determination to be made as to the feasibility of accomplishing the job task in the required time frame and to make up schedules for monitoring the progress of the work. Identifying how the activity will be accomplished provides insight into the resources required.

Evaluation Techniques. The action plan must contain in its evaluation techniques section details of how the performance of the job task of individualizing a program will be evaluated. The section should contain a listing of the evaluation instruments to be employed, a schedule for their use, and a rationale for the selection and employment of each technique employed. The principal should endeavor to use a mix of evaluative devices. Evaluation should be spread over the full period of performance to enable performance shortcomings to be discerned at the earliest possible time and corrective action instituted.

Resources. The action plan must specify the resources needed to accomplish the job task. Resources include students, staff, facilities, materials, procedures, and the community. A job task that requires a principal to meet specified performance criteria for individualizing a program cannot be accomplished unless the resources necessary are available and can be utilized in implementing the action plan associated with the job task.

Reports. Determining whether a job task is performed successfully requires that sufficient data about performance be made available for review and assessment. It was previously stated that evaluation measures have to be identified in the evaluation conducted. After the evaluation is made, the data needs to be placed in a format which the reviewer and assessor can understand. The action plan should contain provisions for making evaluation results about the individualized program available. The manner in which data is to be made available is important enough to be carefully considered.

Scheduled. Every action plan requires a schedule. The schedule relates events to time. It can show the interrelationship of events and present the data on a time scale. Schedules are necessary to show that the events and activities included in the action plan can be performed within the allocated time frame or that revisions of the action plan must be made if the required end results are to be accomplished in the specified time period. People generally tend to be optimistic in determining what they can do within a period of time. Schedules tend to be prepared with the thought in mind that everything will occur as planned. It is well to keep in mind that there is a degree of risk associated with all activities. Risk reduces the chances of accomplishing planned activities commensurate with the level of risk involved. When preparing action plan schedules, the risk level should be contemplated and changes made in estimated times to complete action accordingly.

The second function of managing an individualized program is organizing. There are two types of organization present in any school regardless of its nature: the formal organization and the informal group. The formal organization is the organizational structure created in a school to achieve the outcomes. For example, in an individualized program, the informal group is the one that develops within the school, as a result of human interactions. First we will look at formal organization.

Every principal must create a formal organization within the school to implement an individualized program. The organization will, to some extent, reflect the resources available - the staff and the materials - as well as facilities available to support the program. However, there are almost an infinite number of ways that resources can be structured to achieve the results required to implement the program. The starting place in selecting an organizational structure is to assure that the goals of the individualized program are achieved. Once the goals are determined, the functions required to achieve them can be identified. Then, having determined the functions required, the principal can create an organization which relates the functions of the program in a way that assures achievement of the required outcomes.

Once the staff organizational structure has been set up, two other procedures must be accomplished by the principal. First, a mission statement must be developed for each function of the program organization. A mission statement should outline what each function's purpose is and what outcomes each function should achieve.

The other task to be accomplished is the development of job descriptions for each staff member who serves in the various functions. Program job descriptions can follow the same outline as the principal's job description including responsibilities, job tasks, performance standards, and data indicators/controls. In this way, each person will be aware of the specific responsibilities and objectives of both his/her own job and that of the entire function of which he/she is a part.

Other components of the school program must also be included in the organizational structure. Time must be structured as to what happens and where, and target dates need to be established for the completion of program events and activities, as well as accomplishment of tasks and achievement of goals. Scheduling to meet program and curriculum needs must be done for classrooms and specialists. Initial entry points need to be decided upon:

-Which group of teachers and students will begin to individualize instruction first?

-In what curriculum areas does individualized instruction occur initially?

-Which materials will be used?

Staff development must be planned for and organized. Organization must include consideration of what is needed; who has input; and persons, content, and materials to be used.

Finally, an organization structure must be developed for instruction. Determination of criteria must be made for grouping by learning strengths and learning needs. Instructional and classroom grouping must be planned, not only by diagnosed needs, but also by physical and socio-emotional needs.

With a clearly defined organizational structure in which each function has a precise mission and each person has a specifically outlined job, the program can operate efficiently and effectively.

The formal organization is a power structure designed to accomplish the school's goals. It is based on delegated authority. It is designed in advance. It takes into account, but is not based on, the personality of the individual. It can bind together vast numbers of people.

By contrast, the informal organization is a social structure designed to meet personal needs. Authority is based on personal acceptance. It arises spontaneously. It depends for its existence on the personalities involved. It is limited in number to individuals who want to communicate with each other and who have a good opportunity to do so. Wherever people gather for a common purpose, their natural gregariousness generates an informal organization.

It is well to recognize that informal organizations are not "bad," as they are sometimes assumed to be. Informal social organization exists in every school and can be said to be a necessary prerequisite for effective collaboration. Much collaboration exists at an informal level, and it sometimes facilitates the functioning of the formal organization. On the other hand, sometimes the informal organization develops in opposition to the formal organization. The important consideration is, therefore, the relation that exists between formal and informal organizations as they pertain to an individualized program.

The principal must take cognizance of both formal and informal organizational structure to achieve program objectives. By being aware of the informal group and the interactions within the group, as well as the relation of the group as a whole to the total organization, the principal will be able to use both structures effectively.

Directing is the third management function of the school principal. In carrying out this function, the principal fills the roles of overseer of the operation and trouble-shooter. The principal guides the activities of the staff in a manner that results in the responsibilities of the principal being accomplished. The principal accomplishes his/her responsibilities through the efforts of the staff. The manner in which the principal carries out his/her responsibilities is dependent largely upon how well staff members perform assigned work. The importance of effective directing to the principal is obvious. The overseeing of day to day direction activities is defined as supervision. Following are some suggestions for effective supervision:

-Challenge your staff; professionals like to be challenged by their jobs. They like to exercise latent skills and capabilities.

-Establish deadlines; in this way you challenge the staff and you are being affirmative.

-Give them recognition; every person enjoys a pat on the back. It proves that his/her contribution to the school is recognized and appreciated. It shows that he/she is more than just a faceless member of a group. It confirms his/her own belief in his/her worth as a human being.

Praise is a valuable technique of motivation because a healthy egotism is an important part of the average person's psychic make-up.

-Show interest in staff members; everyone needs to feel that what he/she is doing is important. He/she needs to know that his/her work is important enough that the boss takes an interest in it. Since the principal's performance is so highly dependent upon the work of his/her staff, he/she can ill afford to let any of the staff members feel that he/she lacks interest in what they are doing.

-Give staff members your undivided attention. The principal should make it his/her business to periodically spend time with every person on the staff. When a question, problem, or complaint is brought to his/her attention, an opportunity should be found to invite the person into his/her office and in privacy, give the staff member complete attention for however long may be warranted by the circumstances. The principal should not let the telephone, secretary, or anyone else disturb the discussion.

-Follow up and follow through. The principal needs to follow up and follow through with all programs in the school. Too often after a program has been developed and implemented nothing more happens. Many principals feel their role in the project ends there. This should not be the case. In translating the new program into effective action, the principal not only proves the program's worth but his/her own as well.

-Be flexible. The principal needs to keep his/her mind and spirit flexible. That means reexamining willingly firmly held positions in the light of any new information that may be available. The principal seeks alternative approaches

to problems rather than adopting the first one that is suggested or pops into his/her mind. He/she tries to fit the approach to people and problems, refusing to see issues solely in terms of black and white.

Several suggestions for effective supervision have been highlighted. Others are worthy of consideration. They are listed here without further comment.

1. Get the staff to see the end results of purposeful effort on its part.
2. Determine the personal goals of staff members and try to tie these in with goals of the school system and their school.
3. Give staff members a chance to achieve.
4. Talk to staff members about their progress.
5. Listen with interest to staff member problems, their ideas, and their grievances.
6. Never neglect, ignore, or forget any member of the staff.
7. Welcome and anticipate change.
8. Concentrate on the important things - in the order of importance.
9. Know each staff member as an individual, as human beings with their own goals, aspirations, and ambitions.

These suggestions, though numerous, are not intended to be exclusive, but their use can enhance the principal's effectiveness as a supervisor. The principal, however, must develop his/her own supervisory style.

Some guidelines related to specific duties of the principal should be considered at this point. Meetings are needed but they should be kept to a minimum both in frequency and duration while providing a maximum quality and content. Prepare an agenda in advance and distribute it. It is appropriate to focus on the processes of individual instruction as they pertain to the school as well as to procedures.

The principal should be in daily contact with the faculty and students through informal conversation. The principal should also maintain contact with the community. In this way, he/she can acquire information, keep abreast of trends and attitudes, and discover other data which can affect decision-making responsibilities.

The final function of management is controlling. In the individualized program, controlling is the means by which the principal can assure that the best education is being provided for each child, that the program/curriculum is meeting student needs.

While all management functions contribute to coordination, the monitoring of performance through control deserves special attention. The standards of performance established through planning are not self-fulfilling. Similarly, the designation of duties, departments, and authority relationships with an organization is meaningless without an application of the control process. In this sense, control encompasses the activities which seek to prevent or eliminate deviations between actual and anticipated performance. Therefore,

a principal's effectiveness in applying control devices is ultimately reflected by the state of coordination between the resources and actions for which he/she is responsible.

The control process is one of attempting to maintain conformity between actual and desired results. In seeking this end result, principals are concerned with the following steps in the total control process:

1. The Establishment of Standards. Standards are the targets against which performance can be measured. They result from the planning process and range from broad policy statements to specific rules. In quantitative terms, standards could include turnover among staff, cost per student, budgeted expenditures, and so forth.

Since not all standards can be quantified, some must always be expressed in qualitative terms. In this framework, standards are expressed in terms of a desire to improve morale, increase loyalty to the school, or become more effective in building good principal-teacher relationships.

Principals should be careful not to set standards which are too high. The setting of unreasonable standards can only lead to dissatisfaction, failure to try to meet the goals and ultimate loss of effectiveness. The principal should work closely with the staff in setting performance standards. Where objective criteria have been used in establishing the standards, all parties should be shown how the criteria were established and be given the chance to express their ideas and feelings about them.

2. The Checking of Performance. Standards are necessary, but they are meaningless without some means of comparing them to actual performance. In some cases, the principal who is responsible for establishing certain standards will also check performance against them. At other times, standards are imposed on a principal although he/she checks his/her own performance.

Attempting to monitor all controls continuously can require a larger amount of time than the principal has at his/her disposal to devote to the control function. An alternative to continuous monitoring is the use of the exception principle. The principal using the exception principle concentrates on unexpected or unusual results. As long as operations take place according to plans and conditions are as expected, there is no need for corrective action. It is the exceptions - for example, poor student reading comprehension performance and the like - that call for special attention. Consequently, the principal acquires information on only the exceptional matters. He/she assumes activities are proceeding as planned unless the data informs him/her otherwise.

3. Evaluation of Performance. One effective technique for evaluating performance of an individualized program is personal observation. The principals should frequently be in classrooms in their schools to observe what is being done. They may check the quantity and quality of work, the attitude of teachers and students, and the general procedures in the class. There is an advantage of seeing with one's own eyes what is going on, and a principal can often take quick action to correct problems right on the spot. Personal observation also gives a principal a better "feel" of how an individualized program is functioning than any other control method. The staff sees the principal as they work, and it is helpful to their morale to know that there is interest in what they are doing; at the same time, it keeps them alert.

Personal observation is especially good for checking intangibles. There is probably no better way to check the morale of a group, to observe how students are being taught and treated, and to maintain close liaison with teachers.

On the other hand, personal observation has many disadvantages. It rarely provides accurate quantitative data. Information is acquired only in broad terms and is not precise. Another negative is that it is very time-consuming and takes the principal away from his/her other duties. An intangible disadvantage is that sometimes, instead of the personal visit's being interpreted by the teachers as an interest in them, it may be considered "snooping" and a sign of mistrust.

There are many other methods of evaluation, of course. On a statistical level, the principal can check students' testing results to see whether they are performing on an appropriate level, and from these, the principal can sometimes determine what influence the teachers' performance seems to have.

Written reports are another evaluation method. Comparison of the actual performance and achievements of a teacher can be made with the performance standards originally set.

4. Corrective Action. In order to take corrective action, principals will focus on deviations rather than on the entire problem. As soon as possible, the principal should investigate the reasons for a deviation and decide how to overcome it. This may involve a re-study of the original plan to determine whether the fault lay in the plan or in the execution of it.

Perhaps the reason for a particular deviation lies in the implementation of the individualized program plan. There may be a problem in obtaining materials, or equipment, or the deviation may be due to low morale among the teachers. A careful evaluation must be made. Guesses should be substantiated by studying the facts. Many deviations are easily corrected; others require a complete overhauling of a program.

The cause of a deviation is called the "critical factor" -- that means it is the one thing that must be changed or corrected before the problem can be eliminated. This critical factor is often elusive. One must use careful and deep analysis to locate and identify it.

Principals must probe by asking themselves such questions as:

"How did this situation come to be?"

"Is this the complete situation or is it part of a larger problem?"

"Is the deviation a symptom of deeper trouble?"

"Where are the roots from which this problem developed?"

"If the obvious deviation is corrected, will the problem be solved?"

Corrective action should be put into effect by the principal, and he/she should be given the support needed by the superintendent. Unless this backing exists, principals will not be able to make the changes that are needed to effect the action.

It is best to assign individual responsibility for correcting problems. Holding a particular teacher accountable for the expected results is one of the best means of achieving them. This should be made a positive rather than a

negative factor. To obtain good results it is better to accentuate the potential reward and recognition for doing a good job than to emphasize the penalty for failure. Too often accountability is equated with blame rather than with credit.

The focus of corrective action should be the results expected. The measure of success will rest on the attainment of these results.

The final step in correcting the deviation is to test the solutions suggested to make sure they do indeed correct the problem itself, rather than just alleviate the symptoms. Feedback should be obtained as soon after the corrections are implemented as possible, to measure the new performance against expected results. Keep checking regularly. If the desired results are not being reached, the principal must step in once again and start the process from the beginning, going on until a satisfactory solution is found.

Prescribing Curriculum For Individualized Instruction

Evelyn Hill

It is the responsibility of the teacher to study the scope and sequence of each subject area to be sure that each student has been exposed to all elements of it. Once the learning style for the student(s) has been learned, it then behooves the teacher to provide both appropriate materials and climates for the learners. The procedures chosen may fit the learning style of more than one student and group activities or paired activities may be planned.

Individualized instruction provides for the teacher to work with students one at a time, in large or small groups, and with activities and materials appropriate to the skill needed. The goal of individualization is not a tutorial situation, but an appropriate instructional content for each student. If a basic and common presentation is given to all students, some are immediately ready for the next presentation, some need additional presentations, some need individual and independent study, and some need discussion of the material in a group situation. The problem here is to identify groups ready for a series of alternatives and to provide that series of alternatives. Some might be repetition, some elaboration, some a presentation of the same material from a different point of view or perspective.

Recognizing that in any given classroom there will be a wide range of achievement levels, as well as learning styles, it is necessary to provide materials that will meet those needs. There should be activities geared to the achievement levels as well as to learning styles and learning rates. Manipulative materials, tactile materials, auditory equipment and materials, and activities involving total body activity, should be researched and evaluated when considering programs for students.

Individualization occurs when the curriculum allows for several avenues to be pursued to reach a goal. Then one can decide which alternative is appropriate for any one student on the basis of performance, need, interest, and ability. The same level of performance definition is necessary, however, if the alternatives are to have significance.

Having already recognized that children learn in different ways, at different rates, and with various native abilities, it behooves the teacher and administrator to be alert to new materials which will provide not only for horizontal growth of students but vertical growth as well.

Adept students should be challenged and provided with appropriate materials. This may incur additional expense in finding science materials or mathematics equipment to meet these needs.

Time must be provided within the school day to allow students to pursue their interests. The day's structure should be fluid enough to permit some "choice time" by students where several options are provided. It is also necessary to have activities ready to accommodate learning rates so that the "speeders" have appropriate materials to work with.

If contracts are used, different time schedules will be implemented to meet the needs of the individual project.

The prescribed curriculum must become integrally related to the school's educational program. When a system of individualized instruction is instituted, flexibility and creativity must be keynotes of the program. Flexibility may result from the creativity of the teacher. Understanding that some students require a more regulated schedule, their needs must also be considered and met.

Within the flexibility framework, the students must have a clear understanding of what is to be expected, and yet be permitted to make some choices and decisions on their own. Listening to children and talking with them often opens new procedures and methods of doing "the same old thing." Learning should be interesting but does not have to be "fun" all of the time.

Personnel must be aware of goals and should seek a wide variety of ways to encourage students to achieve them. Several suggestions have been made over the years including behavior and modification, contracts, group agreements, and even size goals. Children in a classroom should be given the option of completing an assignment in several ways. Some major ways for students to reach goals are through: contract, group plan, independent study, oral report (taped or live), assignment outside school or debate.

A curriculum cannot be altered, in one sweeping step, from the traditional approach to the individualized approach without disorienting both pupils and teachers. A program of individualized instruction is best instituted in gradual steps.

Using Contracts And Prescriptions For Individualizing Instruction

Eugene R. Howard

I. CONTRACTS AND PRESCRIPTIONS - WHY USE THEM?

Contracts and prescriptions are two related devices which are useful to teachers desiring to personalize and individualize instruction.

Contracts

The term contract may be defined as a formal agreement between a teacher and a learner regarding what the learner will do to achieve a previously-defined objective. Contracts come in many formats but they usually contain the following components.

1. A statement of what is to be learned (the objective),
2. A description of the learning activities in which the student will be engaged, and
3. A description of how the results of the learning experience will be evaluated.

Some learning contracts also provide a rationale statement describing why the learner wishes to achieve the objectives. Other contracts may also provide the pupil with a list of resources which can be used during the study.

A contract may be simply described as a lesson plan which has been prepared for individual learners rather than for teachers.

Basically, there are three types of contracts.

1. Contracts prepared by teachers and chosen by learners,
2. Contracts prepared jointly by teachers and learners, and
3. Contracts prepared by learners and agreed to by teachers.

Usually contracts are agreements between one individual teacher and one learner. Occasionally, however, more than one teacher can be included in a contract. Contracts can also be written for a small group of learners who will work on a project together. Such groups of learners are usually called learning teams.

Prescriptions

Prescriptions differ from contracts in several ways:

1. They result from a specific diagnosis of a student need. The process usually consists of five steps:

---Skills which are considered essential to continued student progress are defined and listed.

---The pupil is given a diagnostic test to determine which skills have been mastered and which have not.

---An individualized lesson plan previously prepared by the teacher (or obtained from a publisher) is given to the pupil. This lesson plan, called a "prescription" is designed to enable the student to learn a skill which he has not yet mastered.

---Once the learner has completed the prescribed learning activities he is tested to verify that he has mastered the skill.

---A record is kept of skills mastered. Parents are informed periodically regarding the pupil's progress in mastering essential skills.

2. Unlike contracts, which may be with a learning team, prescriptions are completely individualized. Others may assist the learner but he proceeds through the learning activities alone.

3. Prescriptions are generally used only in regard to essential skills which must be mastered by all pupils and for skills which have been pre-determined. Contracts may be designed to achieve learning objectives which are not considered essential for all pupils but which may be considered important for a pupil with individual needs or interests.

4. Prescriptions are assignments given by a teacher. Pupils usually have little to say about which learning activities are prescribed. Contracts, however, are much more flexible. Contracts are usually the result of a planning process in which pupils have a lot to say about what they will learn, where they will learn, who will help them learn, and how they will be evaluated.

How Prescriptions and Contracts are Used in Individualized Programs

Prescriptions and Contracts are essential elements in any individualized curriculum. To see why this is so, let's look at two models of individualized curricula.

Model I. The first model (Figure A) has been designed to encourage pupils to proceed through previously defined units of instruction at varying rates. It is assumed that all pupils in the class need to master the same content. Objectives are defined and lessons are planned to enable all pupils to master all of the objectives.

In Unit 1, for example, five objectives have been identified and one individualized lesson plan has been designed to help the pupil achieve each of these objectives.

Prior to beginning work on each unit, the pupil takes a pre-test. That test may indicate that the pupil has already mastered the objectives of lessons one and three. If this is the case, the pupil's prescription will call for him to study only lessons 2, 4, and 5.

Once the pupil completes the work of a unit he/she is given a test. If the test shows that all of the objectives of the unit have been mastered, the pupil proceeds to the next unit. If the test shows that one or more objectives have not been mastered the prescription will define for the pupil additional learning activities. The pupil continues to work on all objectives of the unit until they are mastered.

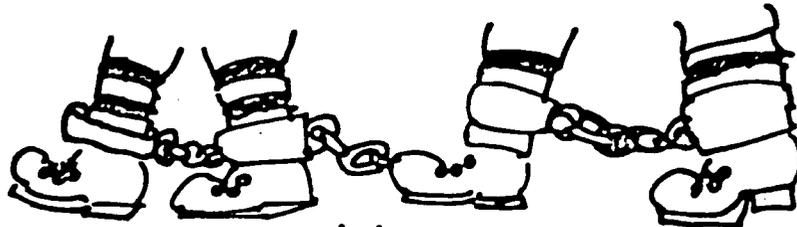
This type of curriculum provides for individual differences in learning rate. It does not, however, provide for individual differences in content. It is assumed that the pre-determined objectives are equally important for all pupils in the class.

This assumption may well be true if the course is composed of objectives which are generally accepted as "basic" or "essential" to further learning in school.

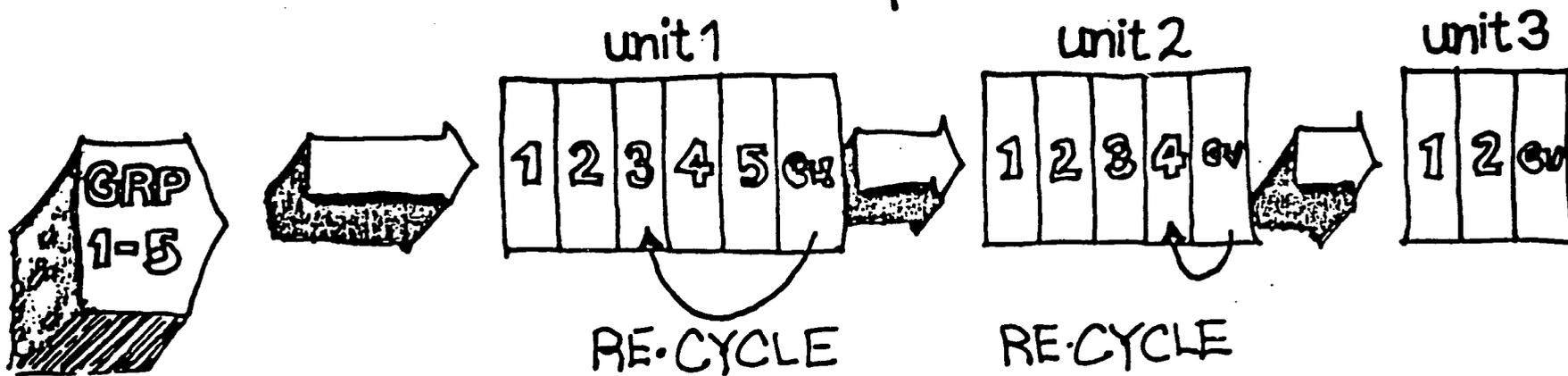
Model II. The Flexible Curriculum with Options. Not only is it possible to organize the curriculum for individualized pacing, it is also possible to organize it in such a way that the individual can be given content options. (See Figure B).

FIGURE A

BREAKING the LOCKSTEP



8/4



A student, for example, may be offered the opportunity of studying one of four units on, say, the subject of water pollution. Unit A might emphasize the water pollution difficulties from the point of view of governmental control. Unit B may examine the problem from the scientific point of view, stressing the effect of water pollutants on the life cycle. Unit C might concentrate on specific local water pollution problems. Unit D might be an invitation to the learner to design a contract to study that aspect of the problem which concerns him most.

If the student elects Unit D, your faculty has struck pay dirt. Teachers now have an opportunity to teach pupils not only about an important international problem, but also how to organize and evaluate their own learning. At this point, pupils have an excellent opportunity to learn how to learn.

In the contract the pupil would suggest an approach to the subject of pollution which is of special interest to him. The pupil and his teacher would then develop a work plan which would define objectives and learning activities.

An important part of the contract would be a description of how the learning experience would be evaluated. Evaluation might be through a written report, an oral report, a check-list, or a teacher-constructed test.

Let's take a closer look at the contents of an individualized lesson plan. Such a lesson plan is similar in format to plans for group instruction. The main difference is this: A group instruction plan is primarily a plan for the teacher - outlining what the teacher will do to teach a particular unit of instruction. The individualized lesson plan describes what a pupil will do. The plan is handed to the pupil and he uses it to guide his learning activities.

Firstly, of course, the unit should have a title which communicates to the learner the concept or topic to which the learning activities relate or the skill which the unit is designed to teach.

Secondly, the objective or objectives for the unit are stated so that learners will know what learning outcomes they will be working towards as they proceed through the unit.

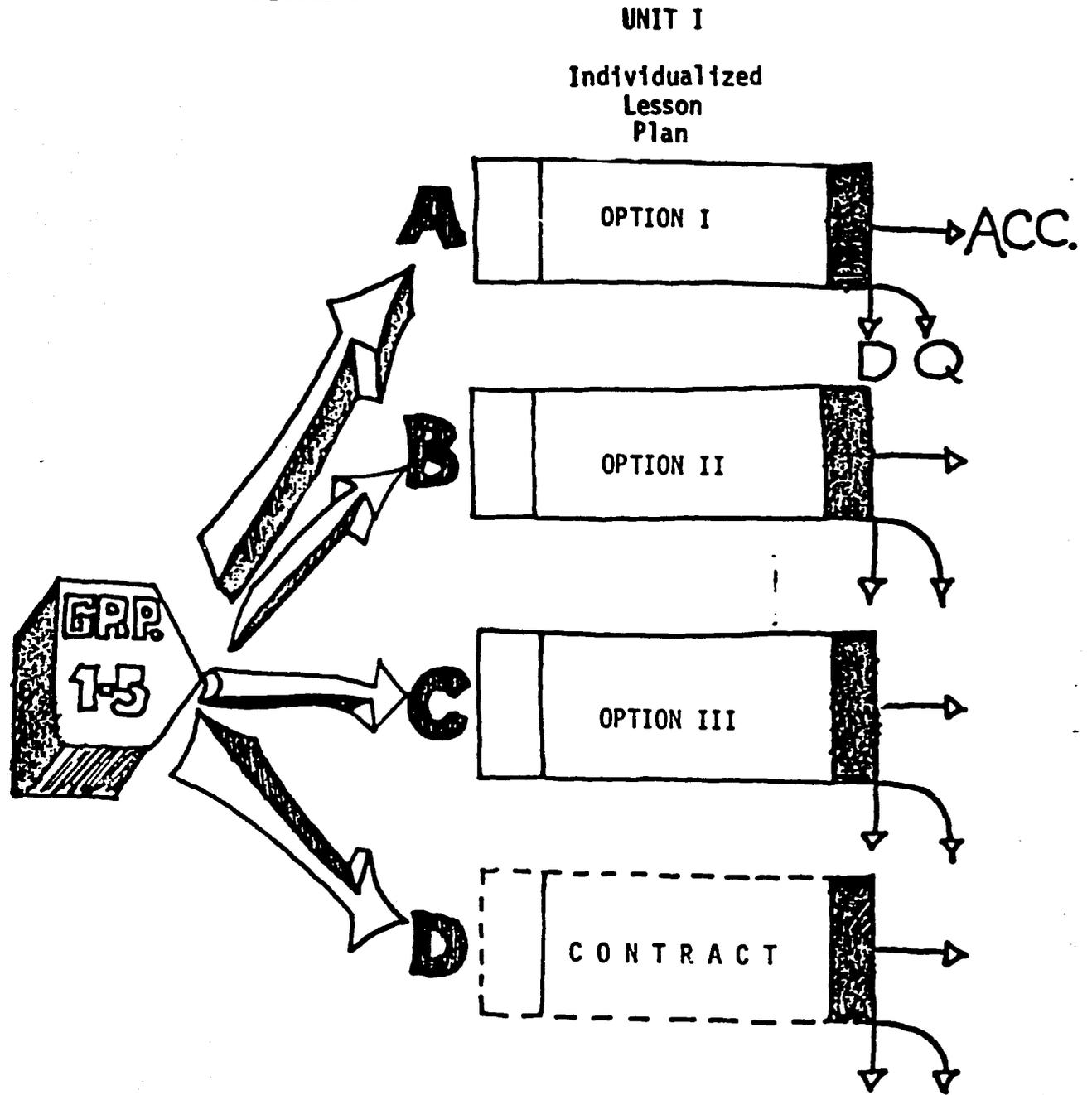
Thirdly, may be a statement of rationale -- usually consisting of one or two paragraphs which suggest to learners a number of reasons why achieving the unit's objectives might be valuable to them. The rationale attempts to answer the always-present learner's question, "Why should I learn this?"

Fourthly, many individualized lesson plans contain a pre-test. This test may be a part of the lesson plan or it may be on a separate piece of paper. If it is on a separate piece of paper, the lesson plan will simply instruct the pupil to ask for the pre-test from his teacher or from the clerk in the resource center. The purpose of the pre-test is to determine to what extent the learner has already mastered the stated objectives.

The fifth major part of the lesson plan outlines a variety of learning activities designed to help the student achieve the stated objectives. Activities may include reading assignments, listening, viewing or writing assignments, discussion options, game playing, experimenting, or object manipulating -- the possibilities are limited only by the ingenuity of the staff.

FIGURE B

FLEXIBLE
CURRIC.
WITH
OPTIONS



Options and requirements in regard to each of these kinds of activities are carefully defined. For example, the pupil may be told that all pupils proceeding through the unit should read Chapter 10 of such and such a textbook and should listen to tape #376 which is an oral introduction to the unit by the teacher. For the main part of the reading assignment the pupil may be presented with three reading lists and told that he is expected to read one selection from each list. Or, if the lists are compiled in accordance with different reading levels, the pupil may be asked to choose three selections from either level A (most difficult), level B (average), or level C (least difficult).

Likewise, options for pupils can be identified for other kinds of learning activities such as listening, viewing, writing, discussing, game playing, or experimenting.

The sixth major part of the individualized lesson plan is evaluation. Evaluation in an individualized program usually includes a conference with a teacher. It may also include a variety of other evaluative activities such as the writing of a paper evaluating the unit's work or taking a test. At this point, if the teacher wished to do so, he may assign a traditional A, B, C, or D grade to the unit's work.

The evaluative conference should be designed in such a way that the pupil, in light of his achievement, makes a decision either (1) to cycle himself back through some of the learning activities to improve his achievement level, (2) accept a depth option, (3) accept a quest option, or (4) proceed to another unit in the sequence.

Regardless of which of the first three of these options is agreed upon, the pupil at this point would benefit from a contract. This contract may be written by the teacher and accepted by the pupil (depth study). In this case the pupil studies a topic in depth in a manner defined by the teacher. Or the pupil may choose to participate in planning his own learning experiences. In this case we say that the pupil is engaged in quest. The approach used will depend primarily on the ability of the pupil to assume the responsibility to plan his own work.

It is important to note that the contract can be an effective device to teach pupils to become responsible, independent learners. Pupils who can define their own objectives, plan their own learning objectives, and evaluate the results have not only learned the contents of the lessons; more importantly, they have learned how to manage their own learning - perhaps the most basic of all skills.

Prescriptions and contracts, then, must be viewed as essential devices for managing an individualized program. The prescription is an essential tool for assuring pupil mastery of essential basic skills. The contract is a tool which can enable pupils to proceed far beyond minimal essentials. It is the basic tool which makes excellence possible. Through the contract pupils can pursue quest - which B. Frank Brown¹ has defined as "the special feeling which sends the student on his way to study for the sheer joy of learning." Quest, according to Brown, "has the wonderful objective of encouraging students to reach the outer limits of their thinking."

¹Brown, B. Frank, Education by Appointment, West Nyack, New York, Parker, 1968, p.56.

Individualized Reading: A District Model

Columba Kaufman

The Norwalk-La Mirada Unified School District, in California, is composed of 21 elementary schools, 6 intermediate schools, and 6 high schools. The school district has a chronic shortage of financial resources because of a shrinking student population, low tax base, and escalating costs. Over the past ten years the enrollment has decreased one third.

Despite the many problems, the district embarked upon an individualized reading program that it felt would be most beneficial to its students. Usually a new district program is costly. However, the plan devised provided for staff retraining and material acquisition required within the constraints imposed by severe school budget cut backs. The planned reading program was not intended to be an addition to an existing program. It was total renewal. An existing instructional program was replaced completely.

Prior to the initiation of the individualized reading program students generally performed below state averages in battery test results, particularly in reading. In the Norwalk-La Mirada School District it was found that 22% of entering 9th graders in the La Mirada area were reading two years or more below grade level. To amplify this further, in the most depressed area of the school district 25% of the 8th grade students scored in the 15th percentile of the Comprehensive Test of Basic Skills.

The individualized reading program introduced in the district is based upon diagnosing and prescribing for student individual needs and by teaching skills selected from the high utility continuum of skills. The program is intended to enable all students to read successfully in the content area; to assure that all students have reading skills that can be applied to materials being read; to assure that students' reading skill difficulties are overcome; and to enable students with learning disabilities to learn to read.

The reading program developed is based upon the following specifications:

A. Reading skills taught students are to be selected from a high utility continuum of skills. Only those skills which research indicates are useful tools for reading are grouped together in a continuum. Teachers refer to the continuum when planning reading lessons.

B. The key modus operandi for reading instruction is a group process with groups formed which exhibit a narrow range of instructional levels and common skill needs. These groups are based on two criteria: (1) All students in a group work with reading materials which are neither too difficult nor too easy, but from which students can learn reading skills with help from the teacher. (2) All students in a given group have a need to develop some common skills which are incorporated in the lessons.

C. Reading skills are selected for instruction based upon each student's assessed and confirmed needs. Students are screened for preliminary placement in instructional groups. This placement is validated by further professional appraisal.

D. The reading instruction program operates with a lesson format which minimally includes three distinct parts. (1) Preparation for reading. (2) Guided reading for a purpose. (3) Reinforcement.

To meet the instructional specifications each school was expected to develop instructional and support practices within five attack zones:

Zone 1. Reading-teacher - deals with general reading development.

Zone 2. Content Area - Teachers that deal with students who must use reading skills to gain information (science teacher, social studies teacher, math teacher, arts teacher).

Zone 3. Reading Clinic - Staffed by a clinician dealing with 2% or 3% of the reading disabled students. The use of in-depth long range clinical procedures and methods.

Zone 4. Reading Lab - Each school will have a reading diagnostic and prescriptive center for acquiring and practicing skills.

Zone 5. Library Resource Area - A place to read books, to research materials, and develop application skills and reading skills. Students must develop skills to locate and use multi-media materials. Information packaged in many forms are available in a variety of ranges of difficulty and interest for the students.

The school district recognized that if the reading program were to be successfully implemented, individual schools would require assistance from the district's central office as well as staff augmentation. A staff position was created in the central office to coordinate the reading program at both the elementary and secondary school levels. A reading coordinator was added to the staff at each school to support activities in each of the attack zones. Outside consultants were hired to provide service both to the central office and school reading coordinators. The organization established has proved effective and is still in use.

Materials contained in the reading laboratories, whether procured commercially or improvised by the teacher, reflect a wide range of student interests, exhibit varying levels of reading difficulty, cover a broad scope of specified topics and appeal to the learning modalities of the learners.

Reading laboratory design included the following features:

A. Require little or no direct teacher supervision after the preliminary introductory period.

B. Provide a means of immediate feedback to the student concerning his success.

C. Provide appropriate data for a systematic recording of progress on a graph. This data should be used as a daily diagnostic device for spotting difficulties or impediments to progress.

An important facet taken into consideration during the establishment of the reading laboratories was the determination of student reading capabilities. A number of devices were employed in making the determination to include: the Nicholas Silvarcli Classroom Reading Inventory (CRI), the George Spaske

Diagnostic Reading Scales, the Samuel Goudy Diagnostic Reading Test, and teacher constructed Individual Reading Inventory (IRI). Results of the tests made assessment of each student's reading performance possible.

Study of individual reading performance made it possible to identify reading problems, diagnose causes, and prescribe those activities required to enable the student to overcome his reading deficiencies. Students having reading deficiencies are scheduled into the reading laboratory. They are trained by the laboratory teacher to follow specific procedures for each prescription. Each visit to the lab by a student involves the following steps:

A. Student folders containing at least a program guide, a work package for each learning strategy, and diagnostic information are picked up at the entrance to the laboratory.

B. The student's program guide includes the specific objectives to be achieved, the value of the objectives in terms of credits and/or grade, the general area for instruction related to each listed learning strategy, and the minimum practice distribution for each strategy.

C. Each learning strategy has a set of specific instructions. The instructions include procedures for correcting the work and the manner in which the work for the day is reviewed.

D. Results of daily work are plotted and the folders are examined by the teacher at least once a week. All records are kept current.

At the close of the 1976-1977 school year most of the school labs were operational and some schools were rotating their students through the labs.

An important aspect of the Norwalk-La Mirada reading program is the teaching of utility skills. Utility skills are taught by reading teachers. They are described as those being necessary to learn to read and in reading to learn. Utility skills are four in number: work identification, comprehension, study skills, and flexibility. Each utility skill is broken down into elements. Related skill elements are clustered into groups or cells for instructional purposes. The cells then are organized into the program schedule of an individual school. Enrollment is limited in each cell to ten students with similar reading capabilities. There are 18 cells in the Norwalk-La Mirada reading program distributed over all 12 grade levels. Since each cell is unique, different materials are required to support utility skill element instruction. Materials required for instruction in each cell were recently identified. The emphasis at Norwalk-La Mirada is upon the use of commercial material. Through placing the emphasis upon commercially available materials, it was possible to obtain those items necessary to start instruction in the fall of 1977. Initial materials can be supplemented by reading teachers as special needs for materials arise.

Library Resource Centers are one of the reading program attack zones. During the 1976-77 school year all libraries were evaluated preparatory to their utilization as true resource centers. Librarians were instructed to review their library plans and submit them to the district librarian and a resource center consultant for review. This resulted in restructuring, even at times, remodeling the existing school libraries. The school libraries were restructured to meet the objectives established for them. Objectives established for resource centers are:

- a. To develop student study skills.
- b. To develop student library skills.
- c. To develop reading application skills.
- d. To develop appropriate leisure reading habits.

The objectives are to be accomplished through the use of materials housed in the resource centers, employment of selected activities with students scheduled into the resource centers, and through planning with reading, classroom and program special area teachers the conduct of activities which are particularly appropriate for the development of individual student capabilities. Since many of the librarians lacked the capability to convert their libraries into resource centers on their own, assistance in making the conversion was provided. A Resource Center Handbook was generated that described the role which the resource center was intended to play in the reading program. The Handbook included well defined activities which the librarian could employ to meet resource center objectives. Handbooks were made available to each librarian. In addition to making Handbooks available, workshops for librarians were conducted. In the workshops, librarians worked with successful resource center personnel to acquire the knowledge and understanding about resource centers needed if they are to be effective in executing their new roles. When the changeover from libraries to resource centers is completed during the 1977-78 school year, a much higher use rate of the library facility in school buildings is anticipated.

The next attack zone that will be addressed is reading in the content area. This step will be covered in the Spring of the ensuing school year.

It is anticipated that eventually all books in the Reading Resource Area will be color coded to an instructional reading cell level. Content area teachers will work closely with the reading teams, thereby enabling content area assignments to interlock with the total reading program.

Results of the Norwalk-La Mirada reading program are gratifying. The May, 1977 Comprehensive Test of Basic Skills on the intermediate school level showed an average gain in reading scores of 1 year, 3 months. The 13 month average gain was in the school whose program has been the most advanced. Other intermediate schools showed average gains of 1 year to 1 year, 1 month in the 1976-77 school year. Previously, average gain in reading proficiency had been less than a year.

Many problems have been encountered in implementing the program. One of the most difficult problems was personnel retraining. Much resistance was encountered. After many years of using the same methods some educators did not believe that changes could improve the situation. A workshop held in the summer of 1976, to re-educate the principals and improve their management techniques went a long way toward reducing negativism by administrators toward the reading program. A second knotty problem concerned converting librarians into resource center personnel. Librarians who conducted sterile library operations could not conceive of servicing many diverse large groups of students hour after hour. The recent August workshop gave many librarians the insights required to change over from the role of librarian to Resource Center Director.

A third problem that caused concern was registration/articulation. As was explained before, the process is complex and may be the source of master schedule difficulties. Conflicts are developing between the time required for conducting all required utility skill element cells and favored electives. A choice may soon have to be made concerning the relative number of each type activities to be encompassed in school programs.

The future of the individualized reading program at Norwalk-La Mirada looks bright. The district has undertaken an ambitious program with very limited added resources to bring it about. Experience has shown that when such a program is undertaken resistance can be anticipated. Efforts expended to retrain personnel and to fully inform the school staff about all facets of the program are extremely valuable. The new program will encounter pitfalls no matter how well planned. Therefore, it is well advised to make planning one of the most important parts of the program. The more comprehensive the planning is, the greater the chance of success.

CURRENT AND FUTURE DEVELOPMENTS IN YEAR-ROUND EDUCATION

The Retrospect and Prospect of Year-Round Education

Bruce Campbell

In recent years, the National Council on Year-Round Education has expanded its purview--healthily, in my opinion--so that it now deals more holistically with the things in the world that touch and are touched by education. The first law of ecology, as stated by Barry Commoner and others, is that everything is related to everything else. We cannot accrue disamenities in one area without there being an effect in another. We dare say openly what we have known all along: schools do not exist independent of the larger society.

Speakers over the last two and one-half days have indicated dramatically where and what our goals should be. Yesterday, for the first time in the two and one-half day period, I began to hear talk about tomorrow and next Tuesday and next month. I have resently said in writings and speeches that while it is intellectually stimulating to contemplate exotic forms of energy production and, while we must not slacken in our pursuit of them, we must live in the foreseeable future with the means at hand. In other words, conservation (or, simply, better use) of what we have is where we must begin. I believe an analogy exists between our energy situation and our education situation.

We must not slacken in our pursuit of desirable educational ends. We must, too, pay attention to the building blocks of those goals.

We are a council on year-round education. The leadership of the council is dedicated to the concept. My brief is this: year-round education, desirable in and of itself, is an essential component of all the good and lofty ends we have been discussing and, indeed, can serve as an organizing concept. Time and space, the essences of year-round education, are, similarly, vital to all the goals we mouth. Let us look at this concept, whence and whither.

Year-round education has been called a new idea. Year-round education has been called an old idea. In answer to the question, "Which is it?", the answer is both, depending on where and on how far back one looks. One hundred fifty years ago, a 48-week school year was common in city school districts. Boston, New York, Buffalo, Philadelphia, and other cities employed a 48-week or longer calendar. Gradually, it came about that the four weeks of vacation were distributed one at Christmas, one at Easter, and two in summer. Schooling in those times was not universal, even in the cities, and was confined to grades one through eight. Academics, roughly equivalent to high schools, were private and exclusively the province of children of professional and wealthy people.

At the same time, rural schools, where they existed, operated from harvest to plow time at best. A documented exception to this was the bringing in of small children in the summertime for reading instruction. The reason given was that small children could not travel bad roads in winter. It should also be noted that little children were nonproductive on the farm.

Over the next hundred years, school calendars became more uniform. Under the pressures of social legislation, rural schools increased the number of instructional days but kept the long, farm-oriented summer vacations. Urban districts, under the twin pressures of growing populations and wider eligibility for public school attendance, actually reduced the number of instructional days. The compulsory education battle has been a tedious one. As American public education extended the succession of grades, it also instituted state-mandated minimum attendance. In Massachusetts, an 1852 law required a minimum of three months' attendance. In 1873, the law was amended to require a minimum of five months' attendance. In 1893, the governor of Pennsylvania vetoed a compulsory education bill on the grounds that it was un-American. Many people objected that such laws were an infringement on parents' liberties.

By 1920, only six states out of 48 had a nine-month requirement. In that same year three states required only three months and six others had no specified minimum term. By 1930, the average state minimum term was a little over seven months and by 1960 the great majority of states required students to attend full terms and usually defined full terms as being 180 days.

Remember, though, that all of these figures are averages. They do not reflect unusual cases. There have always been school people who have questioned, researched, and experimented. Most historians credit Bluffton, Indiana, with the inception of the "modern" year-round calendar in 1904. The school calendar ran from September through July and was divided into four quarters of which pupils could attend three. The rationale for the program was simple:

1. Many children had been absent unavoidably during the regular term. Under the new plan, these could all get a full nine-month course in any year.
2. Pupils who could secure profitable employment in part of the year could do so and still progress regularly.
3. The adverse effects of health conditions due to winter climatic conditions could be counteracted.
4. The schools were crowded and new buildings were needed.
5. It was anticipated that better teachers could be secured if they were placed on a full-time rather than part-time employment.

William A. Wirt, who was superintendent in Bluffton and the originator of the scheme, obviously was impressed with the scientific management ideas that educational administration was borrowing from industry at the turn of the century. He is reported to have said:

There is no more reason why the school should do all of its work during a part of the year and lie idle the remainder, thus using a much larger plant than necessary, than there is for the railroad to attempt to transport all of their freight and passengers during part of the year with much larger equipment than they now require, and then permit their invested capital to lie unproductive for the remainder of the year.

He later instituted a similar plan in Gary, Indiana.

There were others, among them Nashville, Tennessee, and Newark, New Jersey. The Newark program, also a four quarter plan survived longer than any other, 1912 - 1932. It seems that the deeping depression of the 1931 - 32 accomplished what opponents could not and the plan was abandoned at the end of that school year. Aliquippa and Ambridge, Pennsylvania, tried staggered attendance quarter plans in the 1930's. Both were designed to relieve overcrowding. When money was available to build new buildings, the system abandoned the arrangement.

Different and longer school calendars were seriously proposed twice again in the 1950's. In the early part of the decade year-round education was looked upon as an answer to phenominal pupil population growth. As many here remember, kids were enrolled faster than classrooms could be built. Although many districts investigated year-round education plans, most chose split sessions and/or temporary classrooms. As the decade was closing, the Soviet Union launched Sputnik I. A quality argument quickly was added to the quantity problem and year-round education interest came alive again. This time the emphasis was on more and the assumption was that more equaled better.

Apart from the heated debates set off by Sputnik, many people have legitimate concern for qualitative improvements in American public education. As a society grows more complex it makes more demands of its people. The need in coming years for more technical information, more sophisticated skills, and a wider understanding of his world on the part of every man seems obvious. If we are going to commit ourselves to achieving these goals, it seems equally obvious that better use of all school resources is a necessity.

In the late 1960's, year-round education was an idea whose time had come. The work of George Jensen and the work of the school districts in Atlanta, Georgia, Hayward, California, St. Charles, Missouri, and Valley View, Illinois came to fruition. The early 1970's were a time of great activity and growth for year-round education. The last New Jersey Department of Education study done in 1975 showed 163 operational programs in 28 states and 1.9 million students who either were in or had access to a year-round program. Only three programs abandonment could be documented, a 98 percent adoption rate. Since then, declining numbers, first of the children and then of programs, have appeared. Now there are questions and many of them grow out of an economy that no longer is expanding rapidly.

We in education have a passion for taxonomies and pigeon holes. Year-round programs can be categorized in many ways. I suggest that viewing them as quantitative or qualitative is a useful approach. The concepts are not mutually exclusive but are convenient points on a scale from which to look at programs. Indeed, a program of one type usually contains some elements of the other. Scores of plans and variations exist on paper. Six of these are present today in the concurrent sessions in quite some detail.

As you go through this day, as you come upon new ideas and new applications of old ideas, I urge you to think how these might be used to help you better use time and space to achieve your immediate and long range goals. Use us--presentors, board members, speakers, and each other--wring us out, make us give you all we have and challenge us for more. Time and space and the imaginative application of them are just too important to our society and its future to overlook.

There is no shortage of applications to which the concept of year-round education and the knowledge we have gained from 10 years' experience may be put.

The Title I population and the exacting problems of urban school systems are but two. As throughout the history of education, there will be questioning, research, and experimentation. And at a future meeting of this group we will not use terms like year-round community schools because when we say "school" the rest will be understood.

An Enriched Summer Semester

Dr. Daniel Knueppel

Going to summer school is not new. Going to summer school in Tenafly, New Jersey is not new. But it is new and exciting if that part of the school calendar provides the impetus for change in the entire program. That is what happened in Tenafly, a suburban community directly across the Hudson River from New York.

It is helpful to also understand a little about the community to see the environment in which such a change took place. Tenafly High School is a school of 1100 students. 72 percent of the Class of 1977 went on to four year colleges. The Class of 1977 had 1 National Merit Scholar and 12 finalists in the program. The cost of educating a student in Tenafly is approaching \$2900 per year. The community is interested in and supports education.

It was in such a setting that interest in curricular change and in year-round education peaked in 1971. Funds were obtained from the State Education Department for a feasibility study. A steering committee was formed and the public opinion firm of Oliver Quayle was utilized in helping secure community input. Of note in their findings was that "the Tenafly public school system is highly respected and its performance is overwhelmingly approved by both parents of children within the system and other residents of the community who evidence an unusually high degree of knowledge about it." Also, "both before and after being given the opportunity of becoming knowledgeable about the proposed Extended School Usage Plan, residents, on the whole, feel it is an excellent or good idea."

Numerous options were considered. Among the options were extended summer plan, trimester plan, extended semester plan, quadsemester plan, and continuous learning. The final decision reached was to develop a semester plan and expand the summer program.

In carrying out the plan it became necessary to semesterize the entire program so that each course, whether offered in the fall, spring, or summer had the same instructional time since equal credit was to be granted. In addition, many new electives were to be developed in the major academic areas. Workshop funds were provided and the courses developed from Greek Literature to Spanish for Business to Practical Politics. The courses, along with regular courses such as the traditional History Survey, Algebra, etc., were integrated into the summer plan. The final step was to equalize the pay for summer instruction. If the time was the same as fall or spring, then pay by the section should be commensurate. In doing this the cost of instruction in the summer doubled, but was offset by some easing of the course demand load in the fall and spring.

The thrust of the summer experience, however, was not just to duplicate a fall or spring program. It was to offer those experiences that could not be easily scheduled in a 16 module day. Therefore, special courses were developed to stimulate interest. A Modern Drama course is very modern when Broadway shows are visited and serve as the basic textual material for the course. A Physics course takes on a new meaning when lab periods of 2-3 hours permit one to develop experiments in bullet ballistics, optical density, or the physics of television on a very individual basis. An intellectually challenging course called "The American Mind: Pragmatism vs. Idealism" gets students thinking when they visit the city, film the city, and teach the city. New York becomes more than the U.S. The Stock Market---it is the stores, the slums, the urban renewal, the daily struggle of many people living in close proximity. A look at the Program Schedule for any summer in Tenafly reveals the many options available.

Summer semester has grown. The enrollment has stabilized to about 15 - 20 percent of regular student body. It is providing an avenue for students to graduate early. Statistics prove that. But more meaningful are the student comments. One that strikes at our goal sums up our efforts. One student reported: "More important than the book knowledge was the enthusiasm I gained from new experiences---I began to understand."

It is our plan to continue to develop the unique learning time of the summer. Those classes that leave the building enjoy the warm season to explore. Those that remain do their work in air-conditioned comfort. Enrichment will grow. With an emphasis on back to basics - remedial will expand. Thoughts are even being given to summer theater - in suburbia.

All this has happened because there is a community and a Board of Education that cares about young people and believes in expanding their horizons.

Quinmester

Darlene F. Smith

History

Mussoula County High School of Missoula, Montana, began to suffer the pangs of a growing population about 10 years ago. This is a valley which provides a high school education to a 50 mile radius of population, and this caused the Board of Trustees to look for ways to gain physical space. About 1967, a bond election for a new school facility failed, so we had to look to such solutions as a double shift, extended day, or some other means to take care of this population growth. We developed a new time schedule of nine periods of 45 minutes with every other day double periods in labs of science, home ec., industrial ed., etc. We also obtained a variance to release our juniors and seniors after they completed their subjects and not keep them full six hours. Along with this we started a summer school program which was done on a student-day base. With these changes we were able to absorb the growth of population.

In 1973, we felt we had generated enough enthusiasm and support of our student body and community to accept a new concept in a calendar, and we adopted the quinmester. At the same time we applied to the State Department of Education for this calendar to be funded on the Annual Number Belonging (ANB). This was accepted, and we began to solicit teachers' input to generate innovative

classes to encourage students to attend the summer quin. In that first year, we had 276 students who received grades, and we began to develop it into a full scale offering. Each year the enrollment has increased on this quin.

Philosophy

It was and is the philosophy of the Board of Trustees that we should look to all solutions for our increasing population, but at the same time look toward meeting individual student needs in whatever directions we can find to afford flexible scheduling for our population. They felt the 18 units required were inadequate and raised this to 22 credits to graduate to encourage students to have exposure to other academic areas. Credit was given for many innovation programs, not a usual part of a school program. We encourage participation programs such as the YCC and trips to Europe. We opened up early graduation policies so students attended the summer quin to do these "different" things. We moved into the quarter course concept in our curriculum to begin and end each course in a 45-day period of time. In all these changes, the assessment of what will aid the most students in the most ways was paramount.

Problems

We had to make some very different kinds of decisions as we entered the quinmester. Things like: How to handle a student vacation? How to keep students through a 45 day quin? How to staff the curriculum--do they apply on seniority? How to administrate? How to maintain the building through the summer cleaning? What about clerical help? What type of schedule for those hot summer days? What about students who require transportation? What about insurance for unusual courses? Food? Funding? Learning centers open? Attendance? Each of these were considered, and our offerings have expanded each year, and the Board of Trustees voted to monetarily give full support to all of these financial considerations. Since it is expensive to run largely due to field trips and small group offerings, we felt the Board recognized the value of the Year-Round Educational program. They also recognized that using the facilities of several million dollars during the off season would help taxpayers believe in our efforts to economize and show accountability. Our community has indicated that this is one of the better things our district has provided for our student population.

Future

We are now facing a real crisis in where we go next. We have run out of variance time with the State Department on extended day schedule and release time for juniors and seniors. We must now have all students in school six hours plus lunch. We are exploring many options--one of which is to make our not voluntary summer quin a mandated quin for 20 percent of our population. Getting around the "it's vacation in the summer" syndrome is one of our real problems, as is the political question of the fact we are not a unified school system and the K-8 would remain on the traditional calendar. In talking with the various constituents of the city and county, we have found very positive feelings toward the summer quinmester programs. Whether we can maintain a full quin with these problems will soon be decided by our Board. We feel it is the most viable way of gaining space as well as a better education.

operating in 18 elementary schools with 12,860 students, 5 middle schools with 6,339 students, and 2 senior high schools with 6,915 students.

There are a number of advantages to conducting school on an all-year basis, with each student still required to attend only the standard 180 days:

1. Better use of buildings. The buildings are used all year, instead of being vacant for long periods of time.
2. Each school can serve more pupils. Greater use of existing facilities means fewer new schools will need to be built in the future.
3. Better use of equipment. Maps and globes, for example, will serve additional pupils during their lifetime.
4. Libraries are open all year to serve more students.
5. Improved attitude toward school and learning have been noted. Parents, teachers, and pupils all feel that the all-year school schedule contributes to greater learning. Attendance figures for a typical month show a higher percentage of attendance for students in the all-year program than for the county as a whole. There is no significant difference in academic achievement, based on standardized tests, between those students attending all-year schools and those attending schools on the traditional school year.
6. The schedule contributes to curriculum development that may lead to greater emphasis on continuous progress. The all-year schools have shorter but more frequent vacation periods and teachers seem to feel less review is required. There also seems to be a greater feeling of freedom in the placement of students into different grouping situations, since vacations come frequently.
7. The future holds greater opportunities for acceleration, remediation, and personalization in year-round programs. This will develop as teachers and administrators feel comfortable with the schedule and begin to look at the full model.
8. At the senior high level, opportunity for more student work programs as well as individual employment at times other than summer will be available.
9. Children in the same family can be scheduled on the same school-vacation periods for convenience in planning family vacations. Families can vacation at "off season" times when resorts, beaches, and highways are less crowded and prices are lower.

Although there has been a high level of acceptance of this program and there are many advantages to operating on the 45-15 plan, some problems also have developed:

1. Inservice days had been scheduled county-wide to accommodate the traditional calendar. As a result, many year-round teachers were unable to take advantage of county inservice programs. It was necessary to reschedule some of the inservice activities to accommodate teachers working on the 45-15 schedule.

45-15 Plan at Prince William County

David Lepard

Prince William County, Virginia, operates on a county unit system, as one school district, with one school board. In the decade, 1960-1970, Prince William County experienced a population growth of 121.5 percent - the highest for any county its size in the nation. Population rose from 50,164 in 1960 to 111,102 in 1970. Over a twenty year period, from 1950 to 1970, 920 percent - from 3,543 to 32,581.

Despite a major construction program, increasing the number of schools from 14 in 1959 to 42 in 1970, the shortage of classroom space was clearly affecting the ability of the school system to provide for the needs of students. Split shift, staggered schedules, changing attendance boundaries, and overcrowded conditions heightened public awareness and stimulated active community concern for the problem facing the schools.

The School Board and Administration realized the need to develop alternative methods to educate more children in the available classroom space and conducted studies to consider possible alternatives. To keep the public informed and involved, the schools held formal and informal school - community discussions of extended schools days, school weeks, and school years.

The all-year school plan considered most appropriate for this situation was the 45-15 plan. The School Board identified four major conditions necessary for successful implementation: (1) that the community and staff be accepting and supportive of the program, (2) that finances for curriculum revision and air conditioning be available, (3) that the State Department of Education officials interpret attendance keeping and reporting procedures so as to permit full payment of state aid to schools operating on the all-year schedules, and (4) that the State Department of Education provide a continuing validation of the project.

In January, 1971, the Dale City community was identified for the initial phase of the project. The cluster of schools so selected included Godwin Middle School and all its feeder elementary schools: Bel Air, Dale City, and Neabsco. High schools were not considered in the initial phase because overcrowding was such that a 100 percent increase in housing capacity was required to eliminate the use of the shift system and the 45-15 Plan would produce only a 33 1/3 percent increase. A survey of community opinion, allowing one vote for each pre-school or school age child, was conducted by these schools in March, 1971. The survey showed 66.4 percent in favor of initiating the 45-15 all-year school program, and the program was initiated in June, 1971.

The School Board held an open hearing in February, 1972, on the all-year school program. Approximately 600 local citizens attended the meeting and overwhelmingly displayed confidence in the program. When the Board announced its decision to continue and extend the program, those attending the meeting gave the Board a standing ovation.

The program was extended to the high school level in July, 1974, at Gar-Field High School and extended again to seven other communities in the county in July, 1976. Currently, the 45-15 all-year school program is

2. Teachers in the year-round program are unable to enroll in traditional graduate level summer schools. For teachers in the Prince William County area, this was offset by the universities offering courses in evenings and three week blocks.

3. Since each student must be enrolled in school 180 attendance days and the school is scheduled for continuous use by alternating groups, if a school is closed because of snow or for any other reason, it is necessary to make up the days lost on Saturdays.

4. A teacher on an all-year contract, like any other person in the workforce, must take a vacation while the work goes on. Teachers taking vacation while his/her classes are in session must be replaced, temporarily, by a substitute teacher.

5. There may be some difficulty in scheduling family vacations if the younger children are on a 45-15 schedule and their siblings in high school are on the traditional schedule.

6. Athletic teams and performing groups may be affected if some of their members are out of school on vacation. Prince William County provides transportation so that students on vacation may continue to participate in extra curricular activities.

The Prince William County School Board has adopted the following Policy Statement on Year-Round School:

The Prince William County School Board directs the implementation of year-round schools based on readiness of community; staff, students, and parents; staff planning; facilities and program needs. Implementation will be carried out within an orderly organized time frame.

Procedures adopted by the Board include the following:

1. The School Board makes a decision to proceed with a study in a particular community.
2. The Principal and the School Planning Council are provided time to collect and study information related to an optional year-round program.
3. Staff and parent leadership are identified and given time for indepth study of year-round schools.
4. Formal study is initiated in the community:
 - a. Notice is issued to all parents and interested citizens that year-round schools will be studied.
 - b. A School Information Center is established.
 - c. Small group meetings of staff, parents, community leaders, representatives from organizations are scheduled.
 - d. Presentations are made about the possibilities and are presented to large group, public meetings.

- e. Notices are sent to parents, keeping them informed about the progress of the study.
5. A telephone survey of the parents of the community is conducted to determine their level of understanding about the program under study.
6. Follow-up meetings, both large and small group, are held for those in the community who are interested in participating.
7. A survey of the community is conducted by an outside agency to determine attitudes concerning the optional year-round school plan.
8. The results of the study and survey are reported to the School Board.
9. The School Board makes one of the following decisions, based on the results of study and survey:
 - a. Implement an optional year-round school program in the community.
 - b. Continuation of study.
 - c. Drop study and direct the administration to identify alternatives.

Regional Vo-Tech School Serves Communities All Year

Nelson Burns

Vocational-technical education is hard pressed to find new ways to meet the growing demands of young people seeking alternatives to traditional academic high school educations. Throughout the State of Massachusetts, approximately five percent of the students attend vocational-technical schools, yet more than ten percent of the students desire technical training. Almost all of the 23 newer regional vocational-technical schools and most of the older and smaller trade and vocational schools are unable to accept all of the students that wish to attend. Nowhere is this more evident than in the state's largest and most comprehensive technical high school - the Greater Lowell Regional Vocational-Technical School. G.L.R.V.T.S. (Gler-vits) was "too small" before it was finished being built. By 1975, in its first full year of operation, 2,200 students were served and nearly 500 students were turned away. By the Fall of 1976, almost 1,000 students would have to be turned away unless some drastic action was taken.

As early as 1970, it was apparent to the planners of the school that shifting educational trends coupled with bleak job prospects for college graduates would swell the demand for vocational-technical training. By 1972, year-round schools were investigated as a means for providing vocational training to all district students seeking it. Short of a multi-million dollar addition to the yet unfinished building to take in 33 percent more students, a year-round school plan was inevitable.

In 1973 and 1974, administrators from G.L.R.V.T.S. researched many options and variations of year-round school plans. All of the plans investigated had their advantages and draw backs. Greater Lowell Regional had to expand its enrollment without expanding its facility or operate on double or triple sessions.

The Greater Lowell Regional Vocational Technical School District serves the towns of Dracut, Tyngsboro, Dunstable, and the City of Lowell. 29 area schools "feed" the district. A plan for year-round education had to be created that would not seriously impact the traditional nine month school year of the cooperating community schools. Finally, the school's administration selected the "45-15 Plan" as the best method for providing year-round education at G.L.R.V.T.S. In this Plan, a student's school year is divided into four quarters of approximately 45 days. After completing the quarter, the student goes on a three week (15 school day) vacation. This rotates the student's school year of 180 days over the school's operating year of 242 days, providing the student with a vacation in each season instead of one long summer vacation. In order to implement such a plan at G.L.R.V.T.S., the student body is divided into four groups (Tracks A, B, C, D) of approximately 700 students each. Three Tracks are in the facility at any given time - one Track is always on vacation.

In order for the 45-15 Plan to work, the facility and transportation must be used to derive continuous maximum space utilization. "Multi-tracking" of students within each shop and classroom is the only alternative to poor building and bus utilization. This means that within each classroom or shop, 25% of the students are on vacation, 25% just returned from vacation, and 25% are in the middle of their 45-day school session. Without a system to manage this shifting student population, continuity in the educational process would be lost. Individualization is the only way the Greater Lowell Regional School's "multi-tracking" year-round school plan can work.

Individualized instruction was a cornerstone of G.L.R.V.T.S. even before its inception. For four consecutive summers, workshops in methods of individualized instruction were held for future G.L.R.V.T.S. teachers and their counterparts in other area community schools. The Learning Activity Package (L.A.P.) was developed as a model of curriculum management. What is to be learned is broken into its component parts and students proceed at their own pace through learning tasks designed to teach key concepts. Students are tested upon completion of the L.A.P. and are either given more advanced L.A.P.'s or are "recycled" through remedial instruction until they pass the test. The L.A.P. concept enables teachers to become facilitators instead of lecturers and allows them to work with students on a small group or individual basis rather than in large "lock step" classes. Without a class management tool such as the L.A.P., four distinct cycles of students within each class or shop would create numerous problems for teachers using more traditional teaching methods. Four tracks, three weeks apart, would force teachers to teach each lesson four different times. The L.A.P. package also enables teachers to meet the needs of students within each group, spending more time with slower students while not holding back those that quickly grasp concepts. These L.A.P. packs are designed by our own faculty, edited and approved by department Chairmen, and then printed and distributed by our graphic students.

Besides the L.A.P. as a tool to individualized instruction, a most sophisticated Media Retrieval System and extensive investment in Media

software enables 200 different closed circuit T.V. programs to be broadcast simultaneously to more than 250 locations throughout this vast technical facility. T.V. monitors in each of the classrooms and shops and 160 individual T.V. carrels are located in our Instructional Media Center and its ten satellite media centers located throughout the 1/2 million square foot complex. This retrieval system enables students to view video tapes keyed to L.A.P. package activities making an individualized program of studies work remarkably well.

Besides the obvious financial savings in new equipment and the purchase or construction of new buildings, the Year-Round Plan has not significantly increased the cost of educating students at G.L.R.V.T.S. Increases in transportation costs, supplies, and material, and additional instructor salaries are offset by higher reimbursements from State and Federal sources resulting in a much smaller budget increase than would be expected. During its first two years of operation, 45-15 resulted in a net budget increase of approximately 20 percent, while the student body increased by 33 percent. This resulted in a lower cost per pupil ratio and a real savings to the taxpayers.

The year-round 45-15 Plan is not without its problems, however. Increased teacher work days have caused some fatigue and lack of enthusiasm for programs. Administrative staff charged with the responsibility of day to day operation of the new one begins without a major school vacation for meeting, planning, and implementing the new year's programs. Although the school closes for one week in December and one week in July for major plant maintenance, preventative maintenance and custodial work must be regularly scheduled to insure total upkeep of the building. Increased enrollment has caused additional work for all support personnel. Student programming is very difficult to schedule in a vocational-technical setting with a year-round plan.

In spite of its drawbacks, the year-round plan has several advantages. Increased teacher salaries makes it possible to attract and retain a high quality instructional staff. Trade and technical people, accustomed to working year-round in higher paying jobs, are now able to afford teaching. Teachers can take vacations during times when most schools are in session, thereby avoiding crowded recreational and resort facilities at considerable savings in vacation spending. Students, likewise, benefit by staggered three-week vacations in all seasons. They are more alert when in school and forget far less after a three-week period than the traditional ten-week summer recess. Parents sometimes complain of inability to plan family vacations, however, track changes of students can be done to accommodate parental requests, if made early enough.

Due to the optional nature of vocational-technical training, criticism of the 45-15 Plan has been minimal. The facility is flexible enough to make a year-round program work. An individualized curriculum lends itself to "multi-tracking" of students. Faculty and staff have had extensive "in-service" training in individualization. All this coupled with extensive planning and preparation, made the 45-15 concept work for the Greater Lowell Regional Technical School.

Other All-Year School Plans

Other all-year school plans were discussed at the seminar. Due to the small number of persons attending the seminar compared to the number of concurrent sessions scheduled, the groups were combined on an impromptu basis. The following provides an outline of the various all-year school plans.

FOUR QUARTER PLAN

The Four Quarter plan was the first all-year school plan to emerge as a plan to attain greater efficiency in use of school building space. It was based on the concept that a standard school year is about 9 months, or three-fourths of a year, so why not operate all year and serve more students with the same facilities. Operated in this way, a school designed for 900 students would serve 1200 students. The student body is divided into four equal groups. School operates 240 school days, (based on a 180 day standard school year) with the school year divided into four 60 day sessions. Each group attends three such sessions (180 days) and is on vacation the fourth, in rotation so that three of the groups are in school and one group is on vacation each session, as follows, for a 900 pupil school. Of course this and the other plans can be adapted to any size school enrollment.

	Session 1	Session 2	Session 3	Session 4
Group A 300 Students	School	School	School	Vacation
Group B 300 Students	School	School	Vacation	School
Group C 300 Students	School	Vacation	School	School
Group D 300 Students	Vacation	School	School	School

This plan is most commonly operated as an optional program, whereby a student may attend any three of the four quarter sessions, or in some cases, must attend the three sessions during the standard school year and may attend the summer quarter for acceleration, enrichment or remedial purposes.

45-15 PLAN

The standard school year is generally thought of as nine months of school, beginning about September 1 and ending in late May or early June, followed by a summer vacation of about three months. Most states have a law or regulation that specifies the number of days that constitute a school year. This is commonly 180 days, particularly in the eastern United States, but tends to be shorter where agriculture still has an important influence on the living patterns of a community, and exceeds 180 days in some areas, particularly metropolitan areas.

The 45-15 plan like the other all-year school plans in operation in this country, is designed for each student to attend school the same amount of time as the standard school year. The plan, as it is described here is based on a 180 day school year. The school operates 240 days (48 weeks) a year but each student is enrolled in school 180 days.

The student body is divided into four equal sections. The schedule is worked out so that three of the four sections are in school and one of the four sections is on vacation whenever the school is in operation. A school designed to accommodate a total of 900 students, using the standard school schedule, could accommodate 1200 students, an increase of 1/3 or 33 1/3% in enrollment, as illustrated below:

Group A 300 Students	S S S V S S S V S S S V S S S V
Group B 300 Students	S S V S S S V S S S V S S S V S
Group C 300 Students	S V S S S V S S S V S S S V S S
Group D 300 Students	V S S S V S S S V S S S V S S S

S denotes "in school" V denotes "on vacation". Each block of time in the above chart is 15 school days. Thus, each student is scheduled to be in school a total of 180 days. The 900 pupil school, in the illustration above can accommodate 1200 students all together, but 900 would be enrolled at any one time.

The schedule can be used for almost any sized school, and can be adapted to school years longer or shorter than 180 school days.

This plan operates as a mandated plan. A student must be placed in one of the sections and follow that schedule, though considerable leeway can be allowed in making adjustments as necessary from one section to another.

The 45-15 Plan, which is the most widely used all-year school plan in the United States, was refined and made popular through the efforts of the staff at Valley View School District, Romeoville, Illinois, which now has about 14,000 elementary, junior high and senior high school students in the program.

QUINMESTER PLAN

The Quinmester plan is developed around a calendar that divides the school year into five 45-day or 9 week sessions, thus school operates 225 school days a year. Operating as an optional plan, the pupils enrolled in the program must attend any four of the five such sessions. The student has the option of taking any one of the 45 day sessions as vacation, or attending all five. The fifth quinmester attended by a student in a school year could be used to accelerate his progress in school and lead to early graduation, or it may be used for enrichment and remedial purposes which would not accelerate graduation. When operated as an optional plan it does not guarantee any space savings since all students may be in attendance at one time, but it increases the course selection.

When operated as a mandated plan, the students are divided into five sections, and are scheduled in such a way that one section is on vacation while the other four are in school during session on rotation basis. In this way, a school designed for 900 students should accommodate 25% more, or 1,125.

	Session 1	Session 2	Session 3	Session 4	Session 5
Group A 225 Students	School	School	School	School	Vacation
Group B 225 Students	School	School	School	Vacation	School
Group C 225 Students	School	School	Vacation	School	School
Group D 225 Students	School	Vacation	School	School	School
Group E 225 Students	Vacation	School	School	School	School

60-20 PLAN

The 60-20 plan is based on the same concepts as the 45-15 plan except that the sessions are divided into 20 school day modules instead of 15. School operates 270 school days a year (for a standard 180 day school year). Students are divided into three equal groups. Each group attends school for 60 school days (12 weeks) then has a 20 school day vacation (4 weeks). The groups are scheduled in such a way that two of the groups are in school and one is on vacation at any one time. Thus, a school designed for 900 students would accommodate 1,350, an increase of 50%, as illustrated below:

Group A 450 Students	S	S	V	S	S	V	S	S	V
Group B 450 Students	S	V	S	S	V	S	S	V	S
Group C 450 Students	V	S	S	V	S	S	V	S	S

S denotes "in school" and V denotes "on vacation". Each block of time in the above chart represents 20 school days, thus each group is scheduled to be in school three sessions of 60 days each, or a total of 180 days, with a 20 school day (4 week) vacation between sessions.

CONCEPT 6 PLAN

The concept 6 plan is simply a rescheduled school year for students and teachers, with the students attending the same number of school days as under the traditional calendar.

The plan provides for six equal sessions of 45 days each, with school in operation 270 school days (based on a 180 day school year for students). The students are divided into three sections. Each section of students is scheduled to attend school for two consecutive sessions, then be on vacation one session, on a staggered basis so that only two of the sections are in school at any one time. If the sections were divided equally, this would increase the capacity of the school by 50% - a school designed to accommodate 900 students could accommodate 1,350, as illustrated below:

	45 days					
Section A 450 Students	School	School	Vacation	School	School	Vacation
Section B 450 Students	School	Vacation	School	School	Vacation	School
Section C 450 Students	Vacation	School	School	Vacation	School	School

Thus, 1,350 students are scheduled to attend school 180 school days with not more than 900 students in school at any one time. Most concept 6 programs in operation allow the students and parents to select which section they wish to be scheduled in, therefore the complete potential for building space savings is not realized. As in all the year-round programs the traditional holidays such as Christmas, New Years Day, Easter, and Thanksgiving are observed.

FLEXIBLE PLAN

The flexible all-year school is designed to operate all year except for holidays and at other times when there is no "demand" for it. Students are not grouped into sections with rotating vacation periods like most all-year school plans. Instead, a student's vacation is scheduled individually by the parents and himself. A student may take one or more vacations each year, however long desired, just so long as he is enrolled in school the minimum amount of time required by the state or school district (180 days or whatever is required). Except in cases of emergency a student should plan ahead to provide an orderly termination of his study before he goes on vacation. This flexibility in time schedules is feasible only when the instructional program is also flexible. In schools operating on the flexible plan, the instructional program is also individualized.

There are two primary purposes of the flexible all-year school: (1) increasing the quality of education by adapting the instructional program to the needs of the individual learner, and (2) adapting the time schedule to the changing work and vacation schedules of the workforce and other needs of students and parents to have a more flexible time schedule.

DEVELOPING CRITERIA TO DETERMINE FEASIBILITY OF PROCEDURES
FOR ADAPTING AND IMPLEMENTING SPECIFIC PROGRAMS

Alan C. Green, Stanley Applegate, Clifton Chadwick

The following is a composite summary of the ideas presented by the above presenters.

We assume that schools are the places for education and we believe we know when we are being taught. As a result, most of us are apathetic when it comes to self-learning. We have television, light shows, teaching machines, cinerama, and a host of simulation techniques - a vast technology for making the artificial seem real, and in the process we often fail to appreciate the reality in our everyday lives. Too often, we no longer look carefully, listen intently, or yield to our innate sense of wonder. Yet the environment all around us is rich with invaluable learning resources. Even more than classrooms and teachers, the most valuable learning resources are the people, places, and processes that we encounter everyday - but in order to realize the vast learning potential of these resources, we must learn to learn from them.

We should be concerned about real experiences and encourage the development of new learning situations that are independent of traditional books and learning products. We should be interested in the identification and interrelationships of the elements of our natural and man-made environment. We should understand the need to develop skills and abilities to communicate information about the environment.

We can learn from people. Everybody can be a teacher. Everybody knows things, has been places, has answers. All we have to do is start asking questions and demonstrate enough interest to deserve answers.

There are many places for learning. Classrooms are not the only places for learning. Very often things can best be learned by experiencing them firsthand in the places where they are happening. Any place where special things happen or that possesses unique characteristics can be a rich learning resource - which includes anyplace when you seriously consider the real learning opportunities.

We usually tend to think of things only as products instead of considering the roles they play in larger processes. Telephones are small parts of the process of communication, automobiles are parts of transportation, and doctors are parts of health care. When we enlarge our thinking to seek an understanding of whole processes, we consider cause and effect relationships, changeover time, interrelationships among parts, and total concepts.

Good questions lead us eventually to want to know how a process works from beginning to end. For example, when we mail a letter how does it reach its destination? Where does the food we eat come from and what happens to it on the way? What are all the processes that are needed every day just to

make a city possible? The daily processes affecting each of our lives are constant invitations to learning, once we cease taking them for granted.

The basic assumptions upon which this seminar was planned are:

1. that an educational delivery system designed to serve the population of a community or society must be managed systematically but with flexibility in order to provide adaptability to varying needs, and that major components or sub-systems can be analyzed and designed to function in ways to maximize (a) quality of education (in terms of the goals of the school, school system, society); (b) economic efficiency; and (c) adaptability to life-styles and value systems of the population being served.

2. that the basic principles and processes used in the design, development, and operation of such educational delivery systems are generally applicable to differing societies and communities; but in application, the operational programs, themselves, will vary from society to society, from community to community, and even from individual to individual, depending on the prevailing needs, resources, and other variable factors.

A major goal of the seminar is to develop criteria for the selection, adaptation, and implementation of such systems to one's own community or society.

The basic steps for selecting, adapting, and implementing any of the major ideas or models discussed at this seminar are essentially the same:

1. The first question to consider is whether or not the idea has significance in terms of the unmet needs of your school, community, or society. If so, then you should clearly define the real need you are trying to satisfy.

2. In terms of the need(s), what are the specific objectives, which if achieved, would contribute to meeting the need(s)?

3. Are the necessary resources available or can they be made available to be used in conducting programs to achieve the objectives and meet the needs? This should include such resources as personnel (with needed competencies), materials, supplies, equipment, classroom or other types of space, time, funds, etc.

4. What are the alternative ways in which the resources, which are available or can be made available, may be used in order to carry out a program to attain the objectives and meet the need(s)? This should include the idea or model discussed at this seminar that may be under consideration plus any other ideas that may be practical and appropriate. Consider ways in which the idea or model needs to be modified to be most appropriate for the particular situation.

5. For each of the alternatives, what are the constraints which must be satisfied in order to carry out the program to meet the objectives? This should consider all constraints applicable to the situation including such factors as initial student behavior, facilities, financial timing, staff limitations, administrative, political, etc.

6. Select the most appropriate alternative(s) by careful analysis. Take into consideration the objectives and constraints, including the factors of quality, economic efficiency, and life styles of the people being served by the program.

7. Implement the selected alternative for testing, using the following steps or procedures:

a. Delineate the activity elements, schedule of events, and resource requirements for each element.

b. Plan a program to evaluate the selected alternative(s) in utilizing a pilot program as a test phase, if possible, to minimize the risk.

c. Establish a controlled experiment, providing a basis with which to compare the outcomes of this alternative with the status quo or other alternatives.

d. Establish procedures to collect needed data to use for evaluation (performance, financial, etc.).

e. Implement the program with conviction. Sometimes it takes courage to try something new.

8. Perform a thorough evaluation of the program implemented in terms of the objectives. Are the objectives being met, or is there a discrepancy between what was anticipated and what actually happened? Is the model program operating as planned? If not, how has it been changed? Why? What corrective actions are needed to make it function adequately?

9. Modify the design of the program, if necessary, based on deficiencies in meeting the objectives as determined through evaluation. Conduct a new evaluation, periodically, and modification as needed, until the objectives are being met.

Few, if any, basic changes in the education system can be implemented by a single individual, group, or agency. More often, many implementers will be involved. Even when one person or group initiates a recommendation, implementation usually requires that the general public be made aware of both the problem and the proposed solution. As a basic democratic principle, representatives from all groups to be affected by a particular problem should participate in the study, discussion, and development of solutions.

Community problems usually can be solved best by and in the community, and this requires the building of horizontal bonds between agencies in the community. Communities should identify their problems and coordinate their resources.

To carry out an effective overall plan without gaps in or duplication of services, representatives from each of the agencies or organizations involved in a specific program must meet to work out a desired program, divide responsibilities, and coordinate their efforts. Frequently, interagency cooperation can lead to greater benefits than could be attained by the agencies operating separately. As an example, Dr. Apolegate described a

program at a Community Learning Center in England. An identified need of a group of expectant mothers in a community is to learn how to take care of babies. An identified need of a group of working mothers is a day-care center where they may leave their babies while the mothers are at work. The babies of the working mothers are left each day at the Community Learning Center. The babies are cared for by the expectant mothers under the direction of trained personnel. This mutual relationship benefits both groups.

Implementation often required that attitudes be changed or general awareness of needs be increased. To do either, a strategic flow of information is essential. Often, people automatically oppose something they do not understand, and teacher or parent apathy is sometimes nearly as detrimental to effective implementation as unfavorable attitudes. Understanding, then, is a valuable tool for avoiding both hostility and apathy. In addition, people are unlikely to become proponents of a proposal or be identified with a cause unless they thoroughly understand both the problem and the proposed solution. But once a core of knowledgeable people is created, those people will actively communicate information to others to help promote implementation of the selected innovation or change.

It is equally important to identify and define capabilities of each individual - determining who can do what. Individuals will always function best in those activities in which they have competence and interest. A corollary principle is that both opinion molders and participants must understand if they are to perform effectively.

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