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ABSTRACT
               Based on recording transcriptions of Ralph W. Tyler's
responses to questions by a panel of University of
Wisconsin-Extension professors in July 1973, this booklet is
presented as an extension of what Tyler has to say in his book,
"Basic Principles of Curriculum and Instruction" (University of
Chicago Press)--but said in the context of extension and adult
education. Questions with Tyler's answers are organized into four
chapters, each with an editor's introduction: (1) Learning
Experiences--regarding how it may be possible to provide the kinds of
activities that have the potential for facilitating others in
learning, (2) Determining the Things to be Learned--the question of
moving from the establishment of needs, relevance, and determining
priorities to the determination of things program participants will
be assisted in learning, (3) Needs, Relevance, and Priorities--the
matter of identifying and utilizing needs, establishing relevance,
and determining priorities as the basis for programing, and (4)
Evaluation--the question of what to look for in evaluating efforts as
educators, both in terms of the eventual consequences and of what
happens in the process. (WL)

Facilitating Learning with Adults:

What Ralph Tyler Says

G. L. Carter, Jr.
Editor

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PREFACE

For more than a quarter of our country's 200-year existence, Ralph W. Tyler has been a prominent figure in education. For more than half that time (more than a quarter century), he has been actively involved with concerns of the Cooperative Extension Service and adult education in general. Most who have taken graduate courses related to extension and adult education or who have participated in workshops or other types of in-service training on programming, on planning, on evaluation, on instruction, on learning, have encountered his name and/or his influence.

Many have encountered his thoughts through a syllabus which he prepared for a graduate course for teachers at the University of Chicago about 1950. That syllabus is published by the University of Chicago Press (Basic Principles of Curriculum and Instruction) and has been translated into many languages. His name is known throughout the world where there are people concerned with matters of education.

Some of us have had the good fortune of working with him directly. For example, over a period of 7 years he worked intensively with representatives of 16 land-grant universities that have graduate programs in extension education. The activity was called the National Extension Education Curriculum Seminar. I have had the additional opportunity of even more intensive exposure to his ideas and insights through his consultations on a five-year curriculum development project with the Faculty of Agriculture, University College, Dublin, Ireland (1971-76).

Those who have had more direct working relationships with Tyler have discovered that he has considerably more to say to us than has been said in Basic Principles of Curriculum and Instruction. Many of the things Tyler has to say to extension and adult education have not been said by him in print in the context of extension and adult education.

In 1973, it was decided that the Division of Program and Staff Development of University of Wisconsin-Extension would arrange a situation in which we would try to capture some of the additional things Tyler has to say to us that we need to hear. Consequently, he was invited to Madison. Arrangements were made for a panel of faculty to question him—seeking elaboration and clarification on points of particular concern. The panel of faculty consisted of Professors Jerold W. Apps, Patrick G. Boyle, G. L. Carter, Jr., Mohammad Douglah, and Wilson B. Thiede. Part of that arrangement was an

open session with faculty and graduate students. The discussions with Tyler were held July 17-18, 1973.

These discussions were recorded and transcribed. Discussions dealing with four topics have been extracted and edited from the tapes. These four topics are of central concern to the extension/adult educator at all levels:

1. The matter of how it may be possible to provide the kinds of activities that have the potential for facilitating others in learning.

2. The question of moving from the establishment of needs, relevance, and priorities to a determination of things program participants will be assisted in learning.

3. The matter of identifying and utilizing needs, establishing relevance, and determining priorities as the basis for programming.

4. Finally, the question of what we look for in evaluating our efforts as educators—both in terms of the eventual consequences and, equally important, what happens in the process.

These topics as dealt with in the four sections of this booklet can appropriately be looked on as an extension of what Tyler has to say in *Basic Principles of Curriculum and Instruction*—but said in the context of extension and adult education.

A brief introduction is provided for each of the four sections.

G. L. Carter, Jr.

Introduction

to

Tyler on Learning Experiences

An oft-repeated cliche is that "experience is *the best* teacher."
Not so! *Experience is the only teacher*—that is, if we are prepared to
think of "experience" as encompassing more than trial-and-error
experience.

Consider the proposition that learning occurs as a result of
activities engaged in by the learner. Experience comes by engaging in
activities. Learning can occur from engaging in purposeful activities.
To reduce the amount of trial-and-error experience for the would-be
learner, individuals (typically labeled "teacher") undertake to design
and implement purposeful activities in which the learner can engage.
These activities are generally referred to as learning experiences.
They can range from the learner's (1) listening to the "teacher"
talk (lecture) to (2) engaging in a variety of direct experiencing
(that is, trying to perform some operation—mental and/or physical).
Regardless of the nature of the experience provided, it's what the
learner does that leads to his learning.

In the discussion that follows, you will hear (read) Tyler
saying that in arranging learning experiences the teacher (facilitator)
more typically focuses his/her thinking on what he/she will do in
that activity—rather than on what the learner will have the oppor-
tunity of doing. Tyler directs attention to the fact that the teacher
(planner/arranger) of a learning experience should focus his/her
attention on what the learner will be facilitated in doing that may
lead to his learning.

The topic dealing with the question of learning experiences
is presented first here because it deals directly with the most ob-
servable function of the person (the teacher) who undertakes to
facilitate others in learning something. One of what Tyler refers to
as "fundamental questions which must be answered in developing
any curriculum and plan of instruction" concerns the experiences
that can be provided that are likely to attain identified purposes
[Ralph W. Tyler, *Basic Principles of Curriculum and Instruction*,
The University of Chicago Press, 1949 (twenty-ninth impression,
1969, p. 1)].

Tyler talks about the activities in which the learner might
engage on the premise that a determination of what it is that is to be
learned has preceded such consideration. How that determination

can be made is addressed in other sections of this booklet (that is, the sections on (1) determining things to be learned and (2) needs, relevance, and priorities).

The July 17-18, 1973, discussions on this topic are supplemented by some ideas Tyler presented to the Faculty of Agriculture, University College, Dublin, Ireland (June 1, 1971).

Learning.
Experiences

How is it possible to bring about learning?

Tyler: I think it is useful to think of the variety of tools that you can draw upon to help bring about learning. But if you are preoccupied with what tools *you* have, you may overlook the real problem—that is, to get students to learn. Student learning involves (1) *motivation*—that is, he has to turn his efforts to the thing that he's expected to learn. There has to be some energy put in by him to *try* the behavior he is to learn. So there needs to be this opportunity for trying. Then there needs to be some (2) *satisfaction* from carrying it out successfully—or feedback to inform him of errors he made or what difficulties or inadequacies there were in his behavior, so that he may try again. In trying again, he can focus on the feedback, being guided by his understanding of what happens, until he achieves satisfaction. Finally, this newly acquired behavior becomes part of his repertoire—the things that he can do at any time.

The problem is that we tend to think of the content as an end. Content can be put on a piece of paper, but that isn't what a student does with it. For example, let us take anything that you hope the student will learn. The behavior may be to have him examine some phenomenon, for example, trying to identify ways that sheep could be classed, how they differ among themselves. The purpose is for the student to understand the means by which you classify sheep by type. The understanding is not giving a word; it is that he can look at the phenomenon and can see that one animal differs from another in certain ways. He identifies some differences and begins to see what

features of the sheep to look at (whether it is color, the thickness of the wool, the shape of the mouth, or some other feature); that is, he begins to identify factors that differentiate the sheep. He begins to see the way you can separate sheep into classes. Perhaps the next thing is to learn the names of these classes.

If he understands, he can do these things: He can give illustrations of what differentiates one class of sheep from another; he can pick out of a group of those sheep of a particular class. If there are additional kinds of understandings to achieve—if you want him to use his understandings of differences between classes of sheep in suggesting what climate a class would be suited to—you proceed to devise experiences that could lead to that understanding. These are things that you try to visualize—what it is that he is to understand, what he needs to do to acquire this kind of behavior; what learning experience is required.

Then the problem becomes, what is the best way to get him started? First, it may be necessary in a lecture or or in some presentation to him to give him a notion of why it is important to come to understand certain things. Some students may not require any additional motivation—they're just interested. You say to them, "Look at those sheep. See if you can find any differences." They may be motivated right away because it seems interesting. If not, you may need to say in your lecture something more, so they can understand why they should put forth the energy to try the activity you suggest. You try to give them clues as to why they should give their attention to such matters. Then you guide their behavior. It may be that you do this in the sheepyards. It may be that what you're after can be presented by helping students recall past experience. You may ask, "Do you remember the sheep you've known?" It may be that you can use pictures to provide a basis for developing the understanding. Or it may be verbal descriptions. But some way the learner has got to have a chance to deal with whatever he's expected to learn—to try out behavior where he has to see.

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differences, see what those differences are, understand whatever it is you're after.

If he is successful, he will be informed so that he gets satisfaction from it; if he is not successful, you help him with feedback and help him try again so that he doesn't give up.

What I have described is a very simple model of learning. We're all familiar with it. That's the way we learn. The problem most of us, as teachers, have is that we start out thinking about whether we're going to lecture, whether we're going to have discussion or something, rather than first thinking about what is to be learned and what is the situation that will best give the student a chance to carry on the behavior to be acquired. By starting our thinking from the perspective of what is to be learned and what activity the student needs to engage in in order to acquire the new behavior, we may get a lot of other ways to classifying techniques of teaching.

The most important thing about the classification of techniques (methods) is to give the teacher the idea that if the learner doesn't really try to do what he's expected to learn to do, he doesn't have much motivation. His lack of motivation then becomes your (the teacher's) problem. What can you do about that? Or if you can't set up a situation where he can really see for himself what he's expected to try to do (he's not near the sheep farm or sheep sheds), you have another problem. How are you going to deal with it? It may lead you to using other devices or pictures or something. If it's a question of how he is to get satisfaction, if he sees that he's successful, that may be satisfaction enough. If you analyze it in terms of the learning of the student, then I think you're better able to select what you're going to do.

Question: We have talked about objectives in terms of general and more specific kinds of things to be learned. Would you comment on experiences that would aid the learner in acquiring more general kinds of behavior, like problem solving?

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Tyler: It seems like a simple truism to say that a learning
experience for a given objective is simply an opportunity
for the person to carry on (to practice) the behavior
that he's to be learning. For example, if he is to learn
to solve problems, he has to be given opportunities
to solve problems. But we're now talking about
fairly complex learning; it's not as simple as a stroke
in golf might be. There are many factors in the situation.
Part of the design of the learning experience should be
such that the learner becomes conscious of criteria to
look for, of things to consider in solving problems. It
is not enough to say problem solving is to begin with
this question and come out with an answer. The
learner has to understand what he can do, step by
step.

Complex learning is helping to provide an ex-
perience that the learner is capable of doing next.
Here we introduce another problem—the problem of
sequence. The initial experience the learner has in
problem solving ought to be within his ability to carry
it on—not so difficult that he finally gives up. Also,
the experience needs to be one that, as it is carried
on, the learner can begin to see the factors that in the
future he'll have to consider: Does he have dependable
data, for example.

You may say that one of the first things to do in
learning problem solving is to begin to analyze the
problem. So you get into a question such as how do
you know that a is connected with b or that b causes
a. You need to get into questions of that sort so that
when you begin to examine what it means to say that
the learning experience gives the learner a chance to
practice, you realize the complexity of the behavior
required. There are so many aspects to the process of
problem solving that you (the designer of the learning
experiences) must look at.

Then you begin to consider the problem of
organization. What is the thing the learner can do at
the level where he now is—the thing that he can carry
through successfully? You begin to make certain
observations. Maybe it's a very simple problem. The

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learner just discovers there are steps in problem solving. Then you get into the way in which you decide to provide sequence. What will be the sequence? Will it be a relatively simple one? Perhaps, first, he applies this concept to this one class of phenomena; the next time he applies it to two classes and begins to see how it would apply to a third class. Then be begins to generalize. He begins to see that this concept is useful for a whole range of phenomena. Then you give him an opportunity which includes a half dozen kinds of things to which he can apply the concept. He discovers that he can use the concept all the way across.

That's what I mean by generalizing. Generalization usually develops from concrete experiences in one, two, or three things. In discovering that the same idea, with modifications, can be used in all three, you can begin to say: "Why not try it on half a dozen?" He begins to see that this idea can be useful in many more situations than he realized before. That's what I mean by the term *generalizing behavior*—discovering that what you have found and learned how to handle in , *a* can be useful in *b* and *c* and then beginning to understand better the whole class of things that it can be useful in handling. Are these relevant to your point?

Question: Yes. Now the problem I have: For example, if I were to undertake to teach somebody how to play golf, I recognize, without too much effort, that in order for that person to acquire the skill, he will need to try swinging the golf club and do other things that are fairly easily observable. But when I undertake to help someone learn how to solve problems, I'm faced with a different situation. I've got to give him an exercise comparable to swinging the golf club but in the problem-solving context. I'm faced with the task of determining what kind of experience or exercise in the problem-solving learning situation is comparable to swinging the golf club.

Tyler: Problem solving, as you say, can start as a very general idea in which all you can say about it is there

is a difficulty here and there's a solution over here.
Now, the more you are concerned with problem solving
in an area, for example, problem solving in the area of
community development, the more you've got to learn
about what kinds of steps are important, what
things must be considered. This is part of the analysis
of content. This is part of why we say an expert may
be helpful. A person who hasn't given much thought
to how to solve a complex problem is likely to be
quite inadequate. It's like trial and error with a person
who doesn't know the gasoline engine and tries to
figure out why his car won't run. He may work it out
by just trying everything. That's very ineffective.

. . .I'm saying that problem solving is really some-
what specialized in given areas. The way you solve a
problem in physics has some common connections
to problem solving in other areas. There are steps that
may be the same—analyzing to get more particular
difficulties; collecting necessary information; but I
would not expect that just training a person to handle
a wide variety of problems in physics automatically
means that he's going to handle a variety of problems
in the field of public affairs. There are differences.
We know of many cases where a good physicist has not
been a very good person in public affairs.

We've got to recognize that there is a limit to
generalization. There are some kinds of things—the
general approach that you take to problem solving,
the skepticism about panaceas—that are characteristic
of practically every area. Perhaps that's something you
want to help students to generalize because it's useful
to them. But they also ought to understand that when
you get into a particular area of problem solving there
are things they need, such as the concepts which give
you a cognitive map of that kind of phenomenon. In
thinking about a community, the cognitive map that
would be useful would take into account factors such
as social classes, race, patterns of human interaction.
Such a cognitive map is quite different from one you
would use in thinking about what's going on within
the atom when you're dealing with a problem of
electronics.

Question

One of the problems we seem to constantly face with
adult educators (practitioners) is that they want to know how
to do it. In planning, for example, they say, don't confuse me
with theoretical ideas, just tell me what to do — 1, 2, 3, 4 — and
I'll go out and do it. Now I'm trying to express a problem
we face with our learners.

Tyler:

Are you raising the questions as to how you help
the learner see that he has a more complex task than
he realized, or are you saying that you don't have much
that you can teach him in this connection? You see,
it's possible that you haven't analyzed what you pro-
pose to teach. If you ask the politician, for example,
how he gets public opinion behind him, he may have
a very general answer. He hasn't really analyzed what he
he has done — he's just gone along with the tide. Those
who are successful get elected, and those who aren't
are no longer elected by the people. The politician
may not know how he did it. Just like the centipede
when asked how he handles those one hundred legs
so they don't get in each others's way, the politician
has never even thought about it. When the centipede
tried to think about it he couldn't move because the
legs always got in each other's way.

I think you're saying, however, that the learner's
impatient. Just as when one starts to learn to play the
piano, he gets impatient because he can't handle those
keys to play the jazz pieces that intrigue him. And if
so you've got the problem everyone has: either to have
him discover that he'll have to go through it by having
him make some errors; or try to give enough concrete
cases to show that persons have learned to handle it
and perhaps learned to start with simpler things so
they won't find that it takes so much time. They
learned that here's a problem that we can solve within
a shorter time; here's one we'll have to work on longer.

Question:

It seems the problem is to balance helping the learner to
recognize that there is more to it than just a quick, easy answer

—and having the learner so overwhelmed with what you're saying
that he says, "I want no more to do with you."

Tyler: That's what we mean by the design of sequence.
Each step in the learning experiences should be such
that it can be carried through. Carried through means
that there's sufficient motivation. The learner won't
tire out with it. If you're planning something, one
of the important considerations is, which of these
things (when you're talking about things the
community people can learn) can we learn to handle
now and which later? You don't start on a program'
in which the initial effort requires five years before
there is any payoff. You couldn't get by with that
with children or adolescents, nor can you with adults.

So, if this is a problem that's important, we're
going to have to depend heavily on others to help solve
it. But we're going to begin to become competent
ourselves. This was illustrated when I met with the
leaders of the native corporations in Alaska. You know
the new legislation provides that the oil royalties from
the north slope will go to the natives, not to the white
people in Alaska. In the hope that the natives of
Alaska will not squander the oil royalties the way the
Oklahoma Indians did when it went to their tribes,
corporations were set up to be responsible for educa-
tion, housing, health, and so on. These corporations
are to be managed entirely by natives. Services would
be provided by the natives with the money expected
once the oil flow gets to be around a hundred million
dollars a year (or a billion dollars in ten years).

The leading heads of the native corporations
called up some specialists to work with them. On
the one hand, they did not want the white man to do
it for them. They were sick of what they thought of
as the Bureau of Indian Affairs doing things for them
in the past. On the other hand, they recognized
that they didn't have the initial competence. How
could they get some quick decisions? We talked about
two things: (1) the kind of things they could do now

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with relatively short-term instructions; and (2) the longer term one which really represents the education of their children (their adolescents to become leaders in carrying on the work of these corporations in the future).

Even that relatively unsophisticated group recognized the difference between things they could learn quickly and things that would take longer to learn. I think your adults could do the same. You won't start them on the most complex problem. Why not begin with something they can solve and get the taste of problem solving in a relatively short period? This is what we do with children. We begin in the first grade with simple things to be read. We don't start them with something more complex in the first grade.

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Introduction

to

Tyler on Determining Things to be Learned

As was suggested in the preceding section, deciding what experiences to provide learners that might facilitate their learning should be prefaced by a prior consideration of what is to be learned. Most of the literature that deals with this matter talks about the identification of "things to be learned" as determining objectives (behavioral/instructional).

In this section, you will find Tyler responding to questions in which the label objectives is used. You will find that when he is talking about behavioral objectives he is talking about the same thing as when he refers to things to be learned.

As with the section on learning experiences, Tyler talks from the perspective of the learner: What is it that the learner is/should be trying to learn? After dealing with that question the teacher can ask: What activities might the learner engage in that could lead to his acquiring the desired learning outcomes? Only after having dealt with those two questions can the teacher begin giving serious consideration to the question: What must I (the teacher) do that will make it possible for the learner to engage in those activities that may lead to the desired learning outcomes (things to be learned)?

Tyler focuses attention on the needed concern for clarity in the determination of what is to be learned by using examples of complex outcomes, such as problem solving. His discussion under-scores the necessity of defining what is to be learned rather than simply identifying topics which the learner may be expected to "learn something about."

It may be of value to give thought to the choice of labels—whether to think about behavioral/instructional objectives or "things to be learned." Since we as facilitators are trying to focus our attention on the learner, it may prove helpful to think from the perspective of what it is (what behavior) we are undertaking to help the learner acquire (to think, to do, to feel) that the learner is not able to do before engaging in a learning experience. We undertake to help the learner adjust his/her behavior by means of some experience we might arrange.

When we use the label objectives, it may be too easy to slip back to thinking from the perspective of what the teacher is going to

do—what the teacher is undertaking to accomplish, rather than what we should be trying to facilitate the learner in accomplishing.

Under another topic in this booklet, the one on evaluation, you will discover Tyler being rather emphatic that learning is not simply a matter of coming to know—to know in the sense of being able to "say back" or commit something to writing. That point needs to be related to the discussion of things to be learned to insure that we are thinking of learning as including such things as acquiring a facility for engaging in fairly complex activities (such as solving problems or making decisions).

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Determining Things
To Be Learned

Question: Is it part of the responsibility of the adult educator, in certain instances, to put his learners through a process by means of which they come to realize what is needed to be learned?

Tyler: Yes. If learners look upon you, the so-called adult educator, as a kind of a high priest—they don't under-stand but blindly do what you say—you are not func-tioning in the role of the adult educator in a democracy, as I see it. The object is to help persons continually get more and more understanding that enables them to guide and teach themselves.

Question: Then, this process of helping learners discover what can be learned is a learning situation itself?

Tyler: Yes, indeed. The process of program planning in adult education can be one of the important learning exercises for the adults who are participating—learning how to identify an important area for learning that would be satisfying to the individual and be helpful to the community. Don't you think that's an impor-tant thing?

Question: Would you talk a little about the role of the adult educator in this process of helping adults decide whether there's anything for them to learn? Does he provide the information that will lead to the kind of analyses that are necessary? What does he do?

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Tyler: I can tell you what I believe is the role par excellence the adult educator can carry on. But you recognize that how he is accepted and how he can work in a community may vary a good deal from one community to another. You must have had that experience. Par excellence (presumably what the adult educator has been trained to do) is

1. To understand the process by which one examines social and individual problems (that is, problems of society and problems of the individual), how one can draw upon new research and new knowledge as a possible resource, and how to organize it so it will be helpful.

2. To know of resources that can be drawn upon when there are special problems. He knows a good deal about how you can make simple studies to examine the community needs and, if more complex studies are needed, where to go to get help for that.

In a sense the adult educator is what would be called, in the terminology of other fields, a person who provides a technical assistance. But this is always assistance to the responsible people in the community where he is working. He has to lean over backwards not to make decisions for them, because when they can say it's the adult educator's decision, they don't have the same sense of responsiblilty. Furthermore, they aren't learning as much as when they've had to make the decision for themselves.

I see the adult educator as knowing how to go about setting up a program, the kinds of factors to consider, how to make necessary studies to get the information you need, or how to draw upon these resources. He's a technical assistant in planning and conducting educational programs. But the actual decisions, and where possible the actual studies, are done by others. Does this make sense to you?

Question: Let me add something. I think it's directly related. You've been talking about organizing for learning, on the one hand, and you've been talking about problem solving or decision making. You've been using those terms. I'm concerned about the relationship of organizing for learning and the problem-solving process in itself, and of working through it. Aren't there situations where the adult educator, as he works with people in analyzing situations, continues to focus on the problem-solving process itself? First, helping to identify problems, looking at alternatives to those problems, looking to resources, and all the rest? The focus is not on learning at all. That's incidental to solving the problem. He keeps his focus on helping individuals or society—or wherever the problem happens to be—solve that problem. Incidentally, a whole lot of learning will take place. But maybe we're just quibbling over terms.

Tyler: We are. The difference in focus between members of the community and the adult educator in such situations is this: Perhaps the sole concern (focus of attention) of the community members is, "We've got to solve this problem." To the adult educator the focus should be on seeing that people in the community get experience in the various steps of problem solving, of explicating what the steps are, helping them to see why this is desirable rather than that. If he is an educator, he's continually concerned that they become competent in solving problems. In that sense I would say that learning is incidental to the person who is preoccupied with the problem. But to the adult educator, the problem is incidental to learning how to attack problems. He is concerned that they learn how to do it. One of the important things is that he lays bare what goes on in his head that they wouldn't see by observing him.

This is one of the great problems of teaching in a residence place, like a university. Working with faculty at the University of Chicago, I found that when they gave only the results of their study to their students, the students hadn't any idea of how they got those results. Working with several faculty members, I was able to help shift the focus of lectures to a discussion

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of "Here's a problem. Now, how can we go about attacking it? What did I do? What questions were raised? How did I go about it?" Presenting results of inquiry was no longer the objective of lectures. Helping students see the process of problem solving that the professor went through and how to carry it on became the object. If you're an educator, you're concerned with your students learning how to solve problems rather than becoming a kind of tape recorder that records the results after the problem has been dealt with.

Question:

I don't have any problem with that at all. I do have a problem, though, in working with learners, focusing on the problem-solving process and knowing the amount of learning to encourage. This is a relevancy question. Suppose you feel at some point in the process, "Here's a very appropriate time to provide an assortment of background information." You do so and the learners perceive the information as totally irrelevant. You lose them. The whole thing is botched. How do we balance the learner's need to get the problem solved and, using your language, the adult educator's desire for causing some learning to occur.

Tyler:

Perhaps you'd better explain why the adult educator made such a miscalculation that he thought they were ready for this information, and they thought it was irrelevant? What do you suppose? Was it because the adult educator didn't stop to consider their readiness? Or the ways by which they could discover and utilize the information? Was he too much concerned with giving them predigested things? You see, if he were an adult educator, he would say, "Now that we're getting to the point where they'll need a lot more information before they make the next step, there's going to be an impulsive desire to make the next step without the necessary information. How can I help them see the danger of it? Perhaps by having them make a mistake?" Now and then it is useful to have a learner discover the hard way—namely, that he's made a mistake and it's been bad; next time he will want to watch this. If you

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can't find any other way, then it seems to me the educator always has the possibility of letting the student go ahead and make the mistake, then examine the process, figuring out why that mistake was made. Have I made my point?

Question: Yes. You do recognize, I think, the tension that exists between the student and the adult educator—the student wanting to move forward to get the problem solved and the adult educator being concerned with the quality of the problem.

Tyler: And being concerned that the students discover the process the educator uses in dealing with a problem so that the next time they don't have to call him in to do it.

Question: I wholeheartedly agree with the process you've just described. The only thing that concerns me is that, in this kind of process, it really becomes irrelevant as to where you draw the line in what we call planning and what we call execution. It seems to me it's just one process that we go through.

Tyler: Well, certainly the total is problem solving—one process. But the value of making certain divisions of it is that the kinds of considerations or the techniques are different at different stages. If you're going to say, "I'm going to use the same techniques; therefore, I don't see any difference between planning and execution." I would say, "Well, it depends on the problem." With some problems you can proceed at once with execution. But if it's going to be a long-term one, you'd better begin to plan. Planning is really carrying on in-mind in advance of doing it, how you anticipate going ahead, what you do, what resources you need, and so on.

Question: But the logical thing that we think of in planning is that we ought to provide background information.

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Tyler: I think of that as only an incidental thing. A much more important thing in planning is being sure you've considered your goal, that this strategy is likely to reach it, what is required in system analysis step by step, what resources are going to be needed, can you get them. These sorts of things are terribly important. Information about each of these is necessary. Your participants will already have information on some of these points. Some they can easily go out and get.

Question: It seems to me, though, that often in the problem-solving process as we are thinking through the implementation—of looking at and making decisions about alternatives—we come to a new conception of what the problem is. You're right back to the beginning. So the idea of a systemized "Here's what we're going to do now and here's what we're going to do next week" bothers me because you have to constantly reexamine.

Tyler: It shouldn't bother you that in each problem situation it's necessary to do some work on it in order to discover, for example, that the problem is different from the one you thought. You can't just arrive at an adequate definition of a problem by wandering thoughts. As you plan systematically, you begin to get new insights. If you don't plan systematically, the insights are never clear because they're all mixed up with what you've been thinking before.

Question: As you implement perceptively, you get new insights on the problem as well. Would you agree with that?

Tyler: Or maybe you get new insights in the process of planning too. All the way along you should recognize that there is nothing God-given about your initial view. But your initial view is the place where you begin. It's like driving through the national parks. If you discover a turnoff here that looks exciting, you might explore

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it to see what's there. It's not God-given that you have to start on the freeway and stay there the rest of your life.

Question: But in terms of practicality, isn't there the danger of wanting to stick to the original plan because we have invested so much time?

Tyler: Certainly. There are people who, once they've gotten an idea, hate to get a new one. But part of the adult educator's role is to help them discover the real world. And in the real world they've got to be flexible. Flexibility means that at various stages you stop to reconsider. For example, I am an adviser in a large corporation that does annual planning and seven-year planning. Each year the corporation reexamines its seven-year plan. In light of what's been learned this year, they discard certain things and say, "Now we know better than that." And they ought to do this. If not, this business of pushing ahead on an original plan without taking account of new things that have been learned is going to end up in bankruptcy for a company—and in intellectual bankruptcy for a people.

Question: But I mean in terms of implementing specific segments of the plan. For example, if I, as an educator, have planned learning experience to provide background information for citizens of the community and I have invested resources and time . . .

Tyler: Be concrete. What would be a case in which you've now invested something and you feel that you can't stop?

Question: I've invited some outside resources. I've invited a specialist to come and talk about what I consider to be very relevant information about the community.

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Tyler: But if it turns out they don't consider the infor-
mation provided as relevant, it's part of their learning,
isn't it? Why do you worry? It may have cost you a
little money, but you should be prepared, if you're
going to use experts, to have their inputs become a
means of exploring. You don't expect your clientele
necessarily to follow the experts' views.

Question: Many adult educators lock tr nselves into a plan because
the organization puts certain constraints on them in terms of
what they're doing. The organization says, "During this time
you plan." Once the plan is developed, they quit planning.
They quit analyzing their situation. Consequently, they proceed
to implementation. They don't continually go back and reanalyze
that problem . . .

Tyler: You're right! There was a time when people thought
the world was largely static—when the long-term plan
was a one-way road. You got started and you'd eventually
come up to the end. But this is not the nature of
planning that I think is important today for adult
educators. Planning is a continuously tentative view of
what to do next.

Question: That's relevant to some of the criticisms that are raised
in the use of objectives, Ralph. I think you've been talking
to that point. The criticisms made are that they are constraining
and that they may even be anti-democratic, for example. I
would interpret what you've been saying now as relevant to
that criticism; that it's important to have a plan but it's also
important to recognize that the planning process is a dynamic
process and that it has to be modified.

Tyler: My emphasis on the kinds of learning that can aid
the person to be increasingly more free, himself, seems
to me more democratic. Being concerned that your
clientele learn how to carry on the problem-solving
process seems to me to be an objective that, by its very

nature if it's fully a problem-solving process, equips the person to be democratic rather than to be dependent on some outside expert. Emphasis on objectives that are in harmony with the philosophy of your institution is a very important thing, it seems to me, in order to protect the institution. You *can* set up objectives which, in effect, narrow the person's choices.

I visualize the difference between a totalitarian and a democratic society as something like the following: The totalitarian society identifies round holes and fits people into those holes. In other words, there's a specified place in life for each person, and the more training or education he gets the more narrow he becomes, until he fits into those holes. Whereas, I think of a democratic society as one where the test of really good education is whether each increment adds to an individual's freedom of choice. He has a greater variety of things he can do in any sphere of life—occupationally, politically, socially, and individually. It has added to his choices rather than diminished them.

Question: Well, some learnings these days at the high school, college, and adult level do take what I regard as an extreme reaction to the use of objectives. They seem to come at it saying there ought not to be any.

Tyler: You mean, "I don't know what we're doing?"

Question: Right. But isn't the issue behavioral objectives? I think it gets more specific than just objectives. There are a lot of people that would agree that we must have some sense of direction. But they get disturbed with the so-called behavioral objectives variety.

Tyler: There is an article in the September 1973 issue of *Phi Delta Kappan* based on an interview that Justin Fishbein had with me on the question of behavioral

objectives. The article points out that I first proposed
that we needed to state objectives in terms of behavior
in 1931 and what has happened to this notion of be-
havioral objectives in the ensuing forty-two years. I
try to point out in that article that I think there are
several reasons why some of the efforts to use behavioral
objectives seem unwise to me. One of them is that
proponents of behavioral objectives do not distinguish
between clarity of objectives and specificity.

In the initial article in 1931 (based on work with
the biological sciences courses at the Ohio State Univer-
sity) I emphasized generalized objectives—learning how
to solve problems, how to interpret data, how to apply
principles to explain concrete scientific phenomena,
and the like. I pointed out that Thorndike's experiments
had shown that formal discipline did not hold; namely,
that just learning geometry didn't make you any more
logical in your thinking generally. Or learning Latin
didn't necessarily make you any more precise in your
speech. So that, right after such findings in the early
1920s and even up to about 1929, Thorndike himself
had over three thousand objectives for elementary school
arithmetic. He thought of each specific connection as
having to be learned as a specific connection. Pendleton
had twenty-seven hundred objectives in secondary school
English. Such a number is ridiculous because teachers
couldn't keep them in mind.

Then we began to get experiments—I did one my-
self as a graduate student under Charles Judd—which
demonstrated that people can generalize. I found, for
example, that I could teach children addition with only
twenty-one of the one hundred number facts for adding
one digit numbers two at a time. Practicing that, helping
them to see what addition meant, and how it related to
grouping enabled them to do the other seventy-nine
without practice. And they did as well as those who
systematically practiced on all the one hundred. This is
an illustration of generalization in learning.

You don't need to have highly specific objectives,
but you need to be clear about what you mean. If you
say, "I'm going to learn how to add," you've got to

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determine what you mean by adding, and what the general thing is the person learns how to do.

The failure to heed findings such as those of the Eight-year study is partly due to a new wave of enthusiasm that developed during the Second World War. There were training programs to get persons to do things in a relatively few hours. For example, Robert F. Mager, who had a great impact, was the training director for Litton Industries. Employees had to learn to wind coils and do other specific things. In a relatively few hours girls could learn to do what was required by giving them very specific objectives: "You've gotta do this; turn this." The test was, could they carry it through and wind the whole coil? Because he hadn't thought much about education, Mager's success at that effort led him to think of all education as requiring highly specific objectives.

A number of people have fallen for that point of view without asking themselves whether clarity means specificity. You can be clear about what you mean about understanding a concept, for example. You might mean by understanding that we can explain the concept in our own words, can identify illustrations, can give illustrations, can use the concept in explaining certain phenomena. Once you've clarified what you mean by "understanding," further definition of ob-, jectives is just to indicate some of the concepts you're helping the student acquire. And you've got a definition of your objectives—and you're not stating a thousand specific things.

That's one reason I think behavioral objectives have fallen into disrepute. The other one is the carry-over from experience in which management by objectives has been effective in business. It is not recognized that a lot of educational objectives are not directly, overtly, observable things. In management by objectives, what is taught is something like the following: Suppose I'm a manufacturer of a car and studies show that the public is interested in cars that are more compact. So I decide to produce compacts. I've got to plan this production. I've got to set up a general plan—how long it will take

to get the car designed, how long it will then take to produce the prototype and the tools for it, what will be required in marketing. If I'm going to penetrate one-tenth of the market in seven years, I've got to plan for it.

When I've got all these things worked out, then I can assign responsibility; for example, "In this division you're going to produce the designs we expect." After a consideration we decide that the designing can be done in a year. All right then, the manager's objec-tive in that division is to get those designs done in a year. If the designing is not done in a year, we can manage by saying that the design manager has failed in his job. We can determine that another part of the com-pany will turn out so many chassis in so much time, that the sales force will be able to sell so many. We can set quotas and begin to talk about objectives of quantitative, concrete things. This has taken the imagination of a number of laymen and administrators who haven't known enough about education to see why it doesn't apply. They have accepted it. Even in Wisconsin, as I've looked at some of the plans for accountability, it appears that some administrators have fallen for the notion that education is just counting overt things. That is not all there is to education. If you state your objectives only as the number of kids who can do a highly overt thing, you're missing some of the important objectives of education.

So I agree that if by behavioral objectives we have come to mean highly specific, only observable outcomes, then, in that sense, behavioral objectives do a disservice. But if you think of behavior as including thinking, and feeling, and acting, and you're talking about such things as what will help learners understand certain concepts— what principles they can follow; what kinds of problem-solving skills they can develop—then I think that the clarification of objectives can be really helpful to an adult educator.

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Question: Are you suggesting that learning may occur even though it may not be manifest in some kind of observable behavior?

Tyler: If I now shift my role to evaluator, I have difficulty working out ways by which what has developed up here (in the head) can be made observable. You can solve a problem and half or more of the work you do will not be observable to anybody watching you. And yet you've solved it. You've been going through the mental processes. The task of the educator is how to help others carry through these same mental processes. That's what we call problem-solving—largely mental processes. They are not directly observable. Now, you as a teacher can begin to talk out loud, you can explain that at this point I did so and so, or now let's look at. . . . And so you can help to explicate the mental processes you use so that somebody can understand.

Now, how do we find out if the learner learned the process? This is one of the tasks of evaluation. Sometimes you can see what goes on if you have learners do what the teacher does. Have them work out loud, especially if we can set up group problem solving where members have to discuss with each other what they've going to do. They have to ask, "Shouldn't we do so-and-so?" and you begin to get the notion of how they're carrying it out. But, to give a shorter answer, yes, many of the objectives we have involve operations that we often call mental that are not directly observable, and yet the teacher must have some way to make them evident to the student so that he can acquire them.

Question: On the question of need identification, your approach to the subject implies that somewhere in the process it becomes necessary (either on the part of the adult educator or the learner) to make judgments about cause and effect relationships. You use the example of alcoholism (some studies indicating the relationship between the rate of alcoholism in a community and the lack of recreational opportunities). There are studies indicating that lack of recreational opportunities may not be the primary cause of alcoholism—that it could be alienation.

Tyler: If the community is going to feel that an adult program is to help with alcoholism, community members need to examine the kind of evidence that will enable them to focus their efforts. Recognizing that their first conclusion on what will correct the problem may be tentative, they begin to work on the problem and see what happens. Missionary agencies try to get persons committed to individual temperance. That approach might be indicated rather than the recreation facility one. There are those who see alcoholism primarily as a response to the inadequate psychological ego strength. So, it can be approached that way.

I'm only saying that if the people of the community identify alcoholism as a major problem and there's going to be any work for the adult educator, he must remind them that the education part is going to be people learning something. The question is, can they learn things that will help them? If their conclusion is that there isn't anything that they can learn—they all know what's necessary—then there isn't a role for the adult educator. Some other kind of action may be required to solve the problem.

Question: But who is really to determine what is to be learned that would be most helpful? Use alcoholism.

Tyler: Maybe nothing is to be learned. That's what I'm saying. The decision about what is to be learned with adults ultimately has to be made by the adults who are going to learn. You can't be forced to learn something. The role of the adult educator, as I see it, is to bring to bear his knowledge and the knowledge of the persons he thinks are expert in the area to help people get the kind of information to consider. But, eventually, they're going to have to make the choice. If they are skeptical and say they don't believe there's anything to be learned, then forget it. If there's nothing to be learned, the adult educator doesn't have a role because his business is to help them learn. He had better turn to obesity, if that's a problem, because there are a number of things you can learn there.

Introduction

to

Tyler on Needs, Relevance, and Priorities

The concern about needs, relevance, and priorities focuses on certain aspects of what Tyler talks about as sources of objectives (in *Basic Principles of Curriculum and Instruction*). He identifies three possible sources of objectives—studies of: (1) the learner, (2) contemporary society, and (3) specialists in subject fields. Further, he poses two screens through which possible objectives can be filtered in making judgments about their relative merits and priority: (1) the philosophy of the institution (the organization in which the educator functions) and (2) what we know about how learning occurs.

In the following discussion, you will observe Tyler's talking about needs and relevance from the perspectives of learners and society. He talks about priorities as they may be influenced by organizational goals (mission), as well as by intended learners and society.

What is particularly worth noting is the distinction made between needs that translate directly into thing to be learned and needs identified that *do not* translate directly into things to be learned. He makes the point that when needs are identified that do not translate directly into things to be learned the educator has the task of translating.

On the basis of that point, it may be useful to consider if failing to make such translation may be at the root of much of the difficulty we as educators encounter in trying to deal adequately with personal, family, and community problems. So, the matter of considering needs, relevance and priorities does not lead the educator to a simple-to-arrive-at definition of what to do.

Among the most demanding tasks of the educator may be collecting the evidence (observing and analyzing the situation), considering the many perspectives that may/should influence choices about where and how to apply the available limited resources, adequately involving the prospective learners in the process of determining what should be learned, and the like. There is no cookbook formula to follow.

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Needs, Relevance, and Priorities

Question: How do you view the question of relevance in education?
If relevance means relationship to needs, then whose needs are
to be dealt with? In other words, which of the actors in the
curriculum process determine relevance?

Tyler: I'd like first to discuss the matter of needs and
then consider the connection of relevance, if I may.
When you talk about needs of students from the
standpoint of a curriculum person, you're either
talking about needs that can be translated into things
that could be learned that could contribute to helping
students meet those needs, or you're talking directly
about things students need to learn. Let me illustrate
those two possibilities. You might find that in a
particular community there is a great dearth of
recreational opportunities for young adolescents. You
can say at once that young people in this community
need such opportunities. The question for the curricu-
lum is this: Is there anything in that identified need
that suggests what, we'll say, the adults could learn
that would enable them better to meet these needs?

You might say that one thing would be to provide
a course or program in adolescent development, so
adults of the community would have a better under-
standing of adolescence and the role of play in adol-
escent development. That would be one kind of learning
that would help meet the need—the assumption
being that they understand that recreation is impor-
tant. Then you can move on to helping the adults
acquire knowledge about other things, such as know-
ledge about various kinds of recreation that are
possible in a community of that size, the difference

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between commercial and other forms of recreation, etc.

The above is a case where you start with a social need, identified as recreational facilities, and then try to translate that into things that could be learned. Or you may have a need that is directly identified. Say that in this particular community 20 percent of the people are illiterate. Therefore, they need to learn to read. In this case the focus is on a judgment that all persons need to learn to read in our society. We make such a judgment because we are such a far-flung society that we can't be in personal contact with everybody; many of the notions about the world we live in have to come through reading.

I would say that needs are the gaps between the view of what ought to be and the present condition. Those identified gaps may not be direct statements of things persons need to learn; the gaps *suggest* things that persons need to learn. Or the gaps may be directly interpreted as inadequacies in the learning of people.

The question of relevance is usually raised by students when what is being taught seems to them to be something they cannot use; when all they could do would be to store it up and give it back in some kind of quiz. Lack of relevance very often results from a failure of the teacher to help the student see the significance of and how to use what he's learning. It is a basic principle in learning that if you cannot have an opportunity to practice what you're learning, the forgetting rate is very high. In that sense, everything that is taught should be seen by the learner as being relevant to things he can do day-by-day, so that he practices using what is being learned as soon as he acquires it. Consequently, lack of relevance may result from an inadequate consideration in planning of just what it is that can be immediately applicable.

Question: We encounter a problem when we attempt to distinguish between teaching children in the elementary and secondary schools and teaching adults. Society wants to make more inputs

into the determination of what is needed for the elementary and secondary schoolchild. How do we insure that the adult student sees the relevance?

Tyler: Because adults are able to comprehend the real world somewhat more broadly than a child or youth, I would argue that it is desirable for persons working on the curriculum to involve, in the planning, the adults who are going to be the learners. These potential learners ought to participate in the examination of possibilities of things to learn, so that when something is selected they see the relevance of it.

It may be that the so-called expert—the one who understands the problem area—provides a great deal of help. Such expert help is needed, so that when the learner says, "I'm greatly concerned about the amount of alcoholism in this town," the expert can say, "There are studies that suggest that alcoholism is partly due to the unavailability of other uses of time; you're bored, so you turn to alcohol." On the basis of such evidence one might then consider ways of providing better leisure-time activities, or other things of that sort.

But the final say-so of what is going to be learned ought to involve the learner so that he doesn't have to be told that it is relevant. The effort to explain why knowledge of this sort could be helpful in relation to the problem he recognizes can be part of the task in which the adult is involved. Then he doesn't have to be sold afterwards on the importance of the learning activity in which he is to be involved.

Question: Your explanation of involving the adult (or the learner) in the development of objectives (determining needs) gets at one of the major criticisms that has been made of your long-standing classic rationale for curriculum development, doesn't it? I read your early document *(Basic Principles of Curriculum and Instruction)* as simply dealing with the question of how one is to get a need and an objective from the learner. Now I hear you saying that at least the adult learner must be involved. Is

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this different from what you were saying when you wrote
the basic principles syllabus?

Tyler: Whatever may have been the implications in the
past, it seems quite clear that when we are talking
about adult education, the value of having adults
participate is twofold: (1) they become part of the
important task of identifying needs, and (2) because
they're part of it, they see the relevance more easily.

Question: Did I hear you saying that the adult may not, on his own,
be able to identify the learning need? That he may perceive the
problem, but may need help in defining it so that learning can
contribute to its resolution?

Tyler: Surely. Let's take a field in which we are not
expert. Take the field of health. In Ireland, recently,
I heard a good deal of talk (over the Irish television) of
the high incidents of death among middle-aged working-
class men. The identification of factors that could be
associated with a high death rate among males is
obviously something that persons more expert in the
medical field are better prepared to suggest. Medical
experts did suggest in these broadcasts that it was the
high amount of drinking and smoking that took place
after supper in the Irish pubs; that the males typically
go to the pubs, the females typically go to their coffee
klatches. Females lived fifteen years longer in Ireland.
The medical experts were suggesting that what was
needed was to try to get more acceptance of the
American custom of having husbands and wives together
in the evening, rather than separated. The man comes
staggering in about midnight after brawling around the
pub all that time.

I'm quite sure of two things: (1) the Irish man
wants to live longer, and (2) he is not conscious of the
connection between the high death rate and the customs
described. But once the connection has been made and
it seems valid to him, the Irish man is in a position

to consider what his community can do to help change
his ways. Translated into things that can be learned,
what kind of attitudes can the community develop
that will help persons to be more conscious of
their health needs? What can be done to help them ful-
fill these health needs?

Question:
Could I pursue one other question in regard to your
earlier comment in regard to needs? In the area where the
identification of the problem is not directly interpretable into
learning possibilities, I'm wondering if one of the problems we
have in adult education is that we identify a problem (like the
need for recreational facilities) and proceed to attack that problem
rather than trying to interpret it into things that could be
learned? Let me use the yield of corn as an example. We can
determine that it's possible for corn to yield higher than is the
practice in a certain community. Now, if we immediately set
about increasing the yield of corn, that's like building a
recreational facility, as I interpret it, rather than trying to say
what can be learned. Am I hearing you correctly?

Tyler:
In some countries, like Russia, when it is determined
that higher yields of corn are possible, orders are issued
when it is decided what farmers should do to achieve
the higher yields. Interestingly enough, it hasn't
worked. When such orders have been issued farmers
did not understand. The new order violated their ways
of raising corn. They tried to evade the regulations.

Education is primarily concerned with helping
people learn things. Also, I think, in the end, you can't
get social reform without having the people who are
really going to live in that community do something
which involves understanding and skill. You can't do it
for them. Education, I repeat, is primarily concerned
with helping people acquire new understanding, new
insights, new attitudes, new skills, new ways of behaving
in general that will enable them to live more happy and
effective lives. The role of the educator is to help them
learn these things.

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Question: Ralph, I have encountered the fact that many practitioners, particularly in Extension, have problems in making decisions about program priorities. I relate this back to need determination in the sense that you and many others talk about utilizing various sources in determining needs—sources such as the society, the learner, the research-subject base, and perhaps even others. My question relates to the integration of the analyses of these various sources and the decision process relating to this integration. You may have situations in which needs from various sources have different levels of priority. The practitioner is then faced with the decision of establishing a set of priorities. Would you comment on this problem or on approaches to using various sources of needs in making decisions when you're trying to establish priorities.

Tyler: Let me talk very briefly at a very general level, then I'll ask you for concrete illustrations (cases) to which the general may be applied. At the general level, the identification of things that would be good for persons to learn always comes out to be a much larger number than time will accommodate in your next planning period, whatever your planning period is (it could be the next year or next five years). Most planning now is projected five to seven years, and then the yearly plan is revised each year in the light of changes that have taken place. But whatever it is, it's always a finite, limited time that couldn't possibly accommodate everything that can be identified as desirable. If you think of your own needs, what you'd like to learn, you couldn't possibly learn them all in a given period of time.

You're quite right. The decision of which things are to be undertaken is an important one. This decision is aided by several things. One is the possibility that once some of the things to be learned are learned, other problems are taken care of by themselves. For example, suppose you choose a problem of health in a community— say the question of providing more adequate opportunity for relaxation and recreation. Mental health has been a problem; there has been a great deal of tension. You can focus your activities in such a way that a major

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part of the learning is learning how you get information about health problems, how you analyze them, how you attack them, in the process, becoming familiar with the health resources of the community on which you can draw. It is reasonable to expect that, by so working with whatever health problem you choose, it will become increasingly possible for people to solve their next health problem from the experience gained in solving the first one. Do I make that point clear?

We say that, whenever possible, concentrate on those things that help the person learn how to learn; so that, increasingly, the particular program doesn't have to guide him. He becomes an independent learner. Even if it turns out that the mental health problem wasn't nearly as important as the problem of obesity (or something else in the health field), he's learned how to attack it. He's learned where to go to get resources. He's learned how to get the community interested in the problem and so on, and this will be useful for the next problem.

So, one way of establishing priorities is to consider, as you look through the things that represent real needs for learning, which of those, if begun, would be more or less contributing to the solution of other problems, once you've worked on them.

A second way in which you get some help in this connection is to recognize that there are ways of attacking some of the problems. For example, you may help people learn how to organize a cooperative. I think, for example, of Appalachia where the number of educational problems compared to the resources currently available is very large. One of the first things undertaken through adult programs was to help the people of Appalachia learn how to develop cooperative groups among communities. Appalachia had been very isolated. There was a great deal of community antagonism. For example, if I live in this little community in a mountain cove, I hate all the pepole living in the mountain coves five or ten miles away. Developing an understanding of the way in which cooperation can produce results that are not possible by isolation and acquiring skills in organizing cooperatives enabled

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people to deal with two or three educational problems
to begin with. Now these cooperatives are beginning
to work on their own to deal with a number of other
problems. So again, you begin with some possibility
and have a means of continued education.

But you're still going to have more possibilities
than can be dealt with. Finally, you are going to have
to decide which of the possibilities is more important,
which is prior (they are within the immediate learning
possibilities and don't require quite as long a period),
and questions of that sort. There are going to be some
things that the people would like to learn that cannot
possibly be included in this first period—first year, or
first five years. Now if this seems a little vague and
obscure and you want to apply it to some cases, we
can deal with it more concretely.

Question: Let's try to follow through, particularly in terms of
your comment about importance. Say a home economist in
a county analyzes the situation. Based on the analysis, she
finds that a large group of the population in the "disadvantaged"
category follow poor nutritional practices, or their levels of
food intake are inadequate. She could find that, in terms of the
family, there are problems relating to communication. These
problems lead to family disruptions between husband and wife
and children and so forth. She could analyze the situation in
terms of the need of certain pressure groups for programs in
family planning, she could look at the older homemaker groups
who would desire a program in cake making, hat decorating,
and so forth. She also has some pressure from the Extension
Service which employs her in terms of both constraints and
influences about what she should do. So here this professional
is, out in a community, with pressures from various subgroups,
pressures from her employing organization, plus she has her own
personal feelings about what's important. She's faced with a
decision. Sure, she could project for five years, and include all
of the things I've mentioned. But she's still faced with the
decision of what she is going to try to do next year.

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Tyler: The strategy that I am suggesting would be to first try to figure out where the opportunities are to attack some of several possible problems at one time. I would think, for example, that she could take nutrition, which is quite obvious in terms of things that families care about. The obesity, lack of energy, inability to discipline themselves in regard to their children, and the like are things that the family can be aroused about most easily. Then she could try to approach the learning in such a way that the total family would be involved, so that, in effect, the family would be getting practice the way a school provides practice.

If a school is well organized, children are getting practice in democracy at the same time they may be learning to read. You can work with families in such a way that there's a greater positive interaction; they are helping each other, rather than acting in conflict as to whether the father or mother or children get something for themselves. In other words, I'm suggesting that this seems to be an illustration where desirable family interaction and the need for nutrition knowledge, practices, and attitudes can be dealt with together. Is that clear?

Maybe family planning is sufficiently different that you would need to postpone that for awhile. Or you might feel that there is an opportunity to give leadership on family planning to the younger people who haven't yet got a large family and leadership on nutrition to those who already have a number of children, if it is possible to use your resources in such a way that both could be helped. At least, the volunteer resources are different. That's another possiblity.

The same is true with reference to the women who want the cake baking and hat decorating. But it may be that you can't work out a strategy by which the resources can be used to help both groups. Then I think the people involved have to make the hard decision. My own feeling about the hard decision is that the nutrition of the existing children is more important. But the people themselves must make the decision. It should not be a decision in which the home economist says,

"Regardless of what you think, I'm going to go ahead working on nutrition." If the people involved feel that the most important thing they want to work on is family planning, then I think that should be accepted by the adult educator, who should not try to impose her set of values on them.

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Introduction

to

Tyler on Evaluation

Is evaluation a matter of looking at results? Do observable results always indicate that useful learning has occurred? What bases should educators use for evaluating their efforts? Is "coming to know" what learning is all about? These are among the questions to which Tyler addresses responses in this section.

The topic relates directly to one of the four questions of the Tyler rationale for determinin   culum and instruction: How will the educator determine wheth   specified purposes are being or have been attained?

He says you can't disregard what you set out to achieve if you are to evaluate an educational effort. Neither can you overlook examining the process critically—and do so continually, from start to finish. He provides some illustrations of how it is possible to make observations related to the learner's acquiring relatively complex behaviors (like problem solving, diagnosing difficulties, etc.).

Even though it is not discussed here, the following question may be worth pondering: As one engages in a process of defining things to be learned for a particular instructional situation, how might it be possible to observe if and to what extent such outcomes could be occurring? It may be equally useful to consider how the process of facilitating learning (of providing learning experiences) will be observed as we undertake deciding what learning experiences to provide and how they can be provided.

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Evaluation

Question:

. I'd like to have you comment briefly on your general concept of evaluation. Many people who have read and interpreted what you have written about evaluation point out that your focus is on evaluation in terms of objectives— objectives being criteria or the basis for evaluation. The literature, at least today, seems to point out that evaluation ought to be applied or interpreted much more broadly.

Tyler:

I agree that evaluation needs to be defined more broadly than simply identifying the extent to which objectives have been realized. In fact, the more I work with educational programs, the more I like to think of evaluation as the process by which one compares plans, ideas, things that are proposed or are in the mind with the realities of what is there.

Thus, questions that I think about, even when a plan is proposed are: What evidence do we have that this idea is capable of realization? Has this been tried before? Why do we know that this is the critical question? So, if you are willing to define evaluation as trying to get checks on the reality— the existence out here of things that are in your head or on paper—then I think of evaluation as beginning when we are planning an educational program. In planning we ask such questions as the following: Is this possible? Are these things impor- tant? Is this the way to set up learning experiences? Has this been tried before? What is this going to cost? Have we tried to devise plans that are in harmony with evidence—at least, are we sure there's no evidence to indicate that this is bad, and unlikely to succeed?

The next stage that I'm concerned with is actual implementation. This was brought most visibly home when I was a member of the team of three that was

asked by the Commissioner of Education of New York State (in the 40's) to evaluate the program of activity schools, which had been going on for ten years in New York City. Eighteen elementary schools had been selected as experimental schools to work with ideas that Kilpatrick and others had developed. We called these experimental schools activity schools. Another eighteen schools were selected as controls.

The original thought was that we'd just go in and find out (in terms of the usual things kids might be expected to learn, such as reading, arithmetic, social studies, and science) the extent to which they had learned and how these schools differed. But, we got interested in what was meant by an activity school. We got from the planners and the teachers some sixty-one characteristics—things that go on in activity schools. So we wondered if they really did go on and to what extent. We had observers in all the classrooms. We came to the realization that a lot of the activity schools had classrooms in which less than one third of these sixty-one characteristics existed.

We finally decided to talk about activity rooms— groups of children that really had activity programs. In the activity schools we did have a certain number that had at least fifty of the sixty-one characteristics. But a number of other activity schools were the other way around. Among the controls we found as many activity rooms in some schools as in the activity schools. We became conscious of the need for doing some checking as to whether what was supposed to be going on was really going on.

If you're planning an educational program, you better be sure that what you plan is either going on or, if not, whether there are reasons to indicate that the changes that have been made are better than what was originally planned; therefore, you have reasons for proposing changes. This is what Malcolm Provus in his book calls the discrepancy model. He tries to use evaluation as a check on discrepancies between the plan and what is being implemented at various stages. Do the features that are intended to be tested

actually exist in the program? Are the teachers trained? There are likely a variety of things that need to be checked out to insure that what was planned to be tried is actually operative.

Israel, under the educational reform law in 1968, was to have thirty schools the first year following the reform act, then thirty-two more the second year, some forty more the third year. When we began the evaluation in the fourth year, we could find only about twenty schools out of what was supposed to be a hundred really following the reform act.

So I think of evaluation as being useful in checking on implementation. What is really going on? What is the program? Maybe what is being undertaken needs improving before proceeding further. This is similar to the view of formative evaluation: As you are carrying on, you check to see what's going on, in order to revise or modify the program if it seems that results are ineffective. Then, of course, persons are being educated. When it is time to expect some effect, you seek to find out what's happening to the learners. There, I would extend the view that you're looking *only* at the intended objectives to see whether there are any observable unintended effects, both positive or negative. Thus, it may be that one of the effects of a program is to develop persons who can read more accurately, but they hate to read. The lack of interest can be an important effect that has to be considered. If one doesn't like reading, he's not likely to continue to practice after he finishes the program. Thus, in the end you will defeat your original purpose. Are these points relevant?

Question: Yes, they are. There's one other area I'd like to pursue a bit. Take the notion of applying evaluation to adult education situations. Refer to a situation where we are attempting to help the adult gain knowledge and eventually take action.

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Tyler: Things that the persons have learned represent the educational contribution?

Question: Right. Now, what about evaluation? For example, Cooperative Extension has, for years, looked at results from the standpoint of change in economic situations or change in social conditions as a basis for indicating that its programs have been effective. What's your comment on that?

Tyler: I think this implies that they expect, whenever there has been an improvement in the economic situation, it's been because persons have learned certain things. That's a dangerous assumption. It's quite possible to bring about such change by going in and doing things for people. For example, take the very simple business of the household. You can have your son's room look neat by his mother cleaning it up. That's quite a different thing from the kid learning to pick up his toys, make his bed, and to do other things. If you're really concerned with educating people to take care of their own problems, you've got to look at what they're doing, not simply at the product. By looking only at the product you really do not know how much of it was done by the learner and how much was done in some other way. .

Question: Yes, but if you take the example of the farmer adopting practices, the farmer himself adopts a practice. He may not know very clearly . . .

Tyler: What did you think you could teach him? Only to help him be subserviant? It doesn't seem democratic to me. I've seen this happen in some totalitarian states. The education goal, as they see it, is to get conformity.

In 1971, I worked in a seminar in Sweden with representatives from curriculum centers of twenty-one countries. There was a team of six from each

country. The philosophy of the two communist
countries (Poland and Hungary) was to have young
people become completely controlled by conformity
to the group. If they didn't do what the group did,
they were, in that sense, immoral. And this, of course, is
necessary in a country where the view is that whoever
leads the group doesn't have to do any policing. The group
does it.

Now, on that basis you could say that whoever
follows the leader and does what the others do has
learned. But I doubt if that's the goal of Cooperative
Extension. So, farmers having adopted the practice
isn't the question. The question becomes, what did
they learn that enabled them to adopt the practice?
Or, have they adopted the practice just by blind
salesmanship? If I were a salesman, I could perhaps
go out and sell fertilizer to the whole area. That would
be a test of my salesmanship. It might not be a test
of anything the people in the area had learned.

Question: What if you find in your evaluation that learning has
indeed occurred but nothing has happened? This happens all the
time. Many farmers will say that they know a lot more than they
put into practice. Now has Extension achieved anything?

Tyler: If knowing is the end. I think that just knowing
is an inadequate set of objectives.

Question: But that's what you said you were going to measure—
whether or not the learner learned anything.

Tyler: But, are you equating learning only with knowing?

Question: That's what I want to clear up. That is what I was
hearing.

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Tyler: Oh, no! Let me repeat again. We are talking
                about objectives that included problem solving; out-
                lining a course of action. It includes whatever behavior
                in your analysis you think would be helpful or what
                clients think is helpful to learn. To my mind, learning
                that falls short of action is, for many areas,
                inappropriate.

Question: Then why not look at the action?

Tyler: Because you can also carry on the action without
                knowing why you're doing it. I think intelligent learning
                (learners being able to plan and take the responsibility
                for themselves) is the goal. Look, you can get action
                by bringing in the soldiers . . . .

Question: I understand. But if you don't look at the action, the
                action may not have occurred.

Tyler: Why do you not look at both? For example, in
                the National Assessment we have questions in which
                we have students at some age level (we'll say seventeen-
                year-olds around in a group) dealing with a social
                problem, trying to figure out a solution. We're
                testing their ability to analyze, to present, and to set
                up courses of action. But we also have reports on the
                percentage of those who have done certain things in
                connnection with things they are expected to have
                learned. We're concerned with both because, I think,
                that's a part of a good education in citizenship.

Question: Ralph, from an adult educator's standpoint, one of the
                reasons we don't look at both is the difficulty of measuring
                learning. I would suspect in most cases it would be more
                difficult to measure learning than to measure action.

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Tyler: That's why I think it's important not to forget your objectives, even though you look at other things that have happened which are useful. If your objective was to help the learner plan more intelligently, then one of the things to look at is how he is planning. Let's say he is a farmer concerned with his own economic enterprise. How did he plan what he was doing this year with reference to soybean production? With reference to other things? If you say this information is difficult to get, one solution (that we use in the National Assessment) is to take a smaller number of cases, but to sample at random—just as you can get public opinion polls that interview far fewer than millions of people.

If you say it's very important to find out just how the farmer goes about his planning (and if he doesn't have a record that can easily show it, or you suspect his telling you how he did it), it seems to me, when you are trying to make a real evaluation of increase in planning, you have to make some interviews: get the farmers to the point where they are quite open with you, talk about just how they do it, and see how they've changed:

Betty Mawardi is an evaluation person for the medical school of Case Western Reserve University in Cleveland. She is evaluating physicians who are five and ten years away from their special training. She isn't satisfied to find out just what they're earning. She sits down with a physician and goes over a sample of cases in his records. How did he do that? She examines how he made the diagnosis, and so on. You see, many physicians after they've been out of school for five years, stop being problem solvers. They say, "I can tell just by looking at the patient; I'll just give him a penicillin shot. He'll be all right." Maybe you have been unfortunate enough to have a physician who didn't really examine your case. At Case Western Reserve University they're trying to find out if physicians really deteriorate after about five to ten years and become no better than a pharmaceutical clerk.

Betty Mawardi goes over these things with doctors. She can't do so with all Case's medical school

graduates. But she can work with a representative sample, and she has a very impressive set of evaluations. The new curriculum at Case Western Reserve helps the students see more clearly that there are ways of dealing with people's problems that are better than just saying: "If you've got a bellyache, you'd better take something." She finds that the percentage of those who *do make* careful analyses of patients periodically and are not satisfied with just an off-the-cuff prescription is increasing. That increase is related to their having received training in the new curriculum.·

What Mawardi is finding out about the possible effects of the new curriculum on the practice behavior of physicians is similar to what you want to find out about farmers. If this is really a concern to you— you've really tried to teach them how to plan more effectively—then you want to know whether they are doing it. There isn't any short cut. If you're not sure about the data, if you feel that if they just tell you how they did it (in a group or in a quick interview such a public opinion pollster normally takes on), then you'd better make a more intensive case study. It's better to get useful information from a small sample than it is to say we don't really know, but we hope that so and so is happening.

Question: I think this is an example of what you said earlier in terms of broadening the concept of evaluation. If you look at what the farmer is doing and find what he's doing is desirable, the question becomes, how did he come to adopt that behavior?

Tyler: If what you're trying to teach him is how to plan, then you ought to find out how he planned, not just look at the product of it.

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Question: And look at what the educator did. You could then
decide whether what the educator was doing was designed to
propagandize or manipulate, or whether it was designed to
educate.

Tyler: Yes, very good.

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