This paper reports on the first of four phases of a training session, involving 26 occupational teachers, which proposed to devise guidelines for local leadership. Leadership was conceived as the ability to teach others so that they could teach themselves in a minimum period of time. The local aspect of this leadership was interpreted to mean that each teacher would teach herself or himself, as well as colleagues and students, in such a way as to provide for immediate feedback. Each phase consisted of the following six steps: (a) the author gave an example based on his experience working with teachers interested in using better objectives and test items; (b) at least five participants reacted to (a) by citing a similar example based on their own experience; (c) one or two of these group-generated examples were analyzed in order to specify implications for instructional and learning objectives; (d) the examples were analyzed in order to explain the implications for diagnostic and mastery test items; (e) the same examples were further analyzed in order to develop a variety of alternatives useful for attaining the preceding objectives as measured by the preceding test items; and (f) when the time allotted to the phase was up, each of the preceding five steps was summarized into one practical conclusion that could be accepted by the majority of the group. (Author/PB)
TITLE

WRITING PERFORMANCE/BEHAVIORAL OBJECTIVES
AFTER TEACHING WITH THEM

AUTHOR

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DATE

May 12, 1975

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WRITING PERFORMANCE/BEHAVIORAL OBJECTIVES
AFTER TEACHING WITH THEM

This title sums up the message of this article:

1. Any performance/behavioral objectives you write before teaching with them probably aren't worth the paper they are written on. Certainly, they are not worth all the time it took you to write them.

2. It's a poor investment of your time, energy, and paper to write out behavioral objectives before you have taught with them. It's an even poorer investment of your time and energy to try teaching with performance/behavioral objectives until you have done a lot of thinking and talking about your overall general goals.

3. You must think about your goals in order to decide exactly what you want to do. You must talk about your goals with your professional colleagues in order to find out how measurable, learnable, and teachable your goals really are once they are translated into operational objectives.

You the reader are going to look at these conclusions before reading the rest of the article. In reality, these conclusions were written after a long painful process of analysis and discussion.
They are put first in this article because the author has paged through and scanned educational literature in order to come up with ideas that could be translated into better classroom performance. In other words, the present author felt reading an educational magazine was an educational two-step. Let's represent this in the following diagram:

Teacher gets a good idea from an educational journal  $$\Rightarrow$$  Teacher teaches better by applying this new idea in his classroom

As far as it goes, this idea seems sound enough. In actual practice, very few teachers have actually improved their classroom instruction as a direct result of reading a magazine article. The reason is simple: The article gave the theory behind a good idea, but it didn't spell out the steps necessary to implement this new idea in different circumstances.

THE PROMOTION OF LEADERSHIP AND THE ADVANCEMENT OF THINKING.

In reality, something quite different has happened. An educational leader, whether it be a teacher or administrator, has tried out a new practical approach. This approach has achieved results, as good or as better than the previous policy.
The teacher himself has discovered a new idea. He has made an advancement in his thinking. He now wants to publicize this idea in order to help others.

Let's look at this in diagram format:

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Teacher taught better

Teacher wrote an article telling about the new idea he discovered
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The above diagram points out two things: (a) the teacher taught better; this was not merely a new idea; (b) the teacher wrote an article telling about the new idea he discovered. Very often, he omitted, from the article, the details of how he taught better.

Sometimes, readers want to find out the details that make for better teaching. These details can make or break any adaptation of the author's viewpoint. As a matter of fact, these details are often more interesting to the busy teacher than a consideration of theoretical viewpoints.

On the following pages, the intention of the author is to show you (a) what was done; and (b) what he learned from this. It is hoped that this exposure to both the new idea and the different way of teaching will give you the necessary perspective to apply this in your classroom.

In other words, this article wishes to provide you with both the useful information (THE NEW IDEA) and the usable portions of this operational research (A SLIGHTLY DIFFERENT WAY OF TEACHING).
EXACTLY WHAT HAPPENED

A group of 26 occupational teachers were called together in order to come up with guidelines for local leadership. Leadership was conceived as the ability to teach others in such a way so that they will be able to teach themselves in a minimum period of time. The local aspect of this leadership was interpreted to mean that each teacher would teach himself, his colleagues, and his students in such a way as to provide for an immediate feedback effect. The feedback was operationalized to mean that the message sent out by the teacher was exactly the same as the objective understood and attained by the learner.

This training session was planned in four phases. Each of the phases were scheduled to take approximately 30 minutes. There weren't too many rules to the game, except that each phase was to consist of six steps:

STEP 1: The author was to give an example based upon his experiences working with teachers interested in using better objectives and better test items.

STEP 2: At least five of the participants were to react to step one by citing a similar example based upon their own experience.

STEP 3: One or two of these group generated examples were to be analyzed in order to specify its implications for instructional and learning objectives.

STEP 4: These same examples were to be analyzed in order to explicate the implications for diagnostic and mastery test items.

STEP 5: These same examples were to be further analyzed in order to brainstorm a wide variety of alternatives useful to attain these preceding objectives as measured by the preceding test items.

STEP 6: When 25 minutes were up, each of the preceding five steps were to be summarized into one practical conclusion that could be accepted by the majority of the group.
Here are the six steps of component one. As you read through each of these steps, try to mark out the pattern in which each step is advancing a little bit closer to the conclusions given at the beginning of this article.

STEP 1: The author told the following story:

It is a common place in educational circles nowadays that the best way to get a job as an electrician is to spend three years taking advanced placement in auto mechanics: Anybody who says this is not relying upon logic or common sense. He is not relying upon the educational syllabi or curricula of most auto mechanics programs. As a matter of fact, he is not particularly talking about auto mechanics.

He could just have easily had said, "The best way to get a job as an auto mechanic is to study pipefitting in a three year intensive program." What is he getting at? The answer is simple. Many students put in long years of training in a highly specialized technical program only to find jobs in another technical program just as specialized for which they do not have any specialized training.

This type of thing is going on everyday. I'm not going to ask you to raise your hands, but I feel certain that many of you could come up with similar examples that bring out this same point. If we were able to come up with statistics proving that 50% of our graduates of highly specialized programs continue in these same programs for their first and second jobs, we would feel proud of ourselves. We would feel like telling the whole world about the good job we have done.
The fact of the matter is that we are training them for one thing and that they are finding jobs somewhere else.

Without getting too philosophical, let's sum it up in a few words: There are many things student's learn that they were never taught and that never get recognized.

STEP 2: The participants were invited to give similar examples of their own.

Volunteer A started talking about his next door neighbor. The other week, he had had a crack in his cellar floor. During a heavy rain storm, a large amount of water came into the cellar. Volunteer A didn't know what to do. His next door neighbor was ready and willing to help out. His next door neighbor came into the cellar of volunteer A and repaired the crack in the floor. He did a very professional job. He was even ready and willing to help paint over the newly placed protective coating.

Volunteer A started to talk to his next door neighbor. He asked him how long he had been a professional mason. His neighbor said to him, "Mason, nothing doing. All my life, 35 years worth, I worked on repairing diesel engines. Now that I am retired, I do a lot of the work around home. I brought a can of this water protective cement, and read the directions. I learned how to use it. The first time I did the job, I botched it. Now I know what to do. Nobody taught me anything; I learned it all on my own."
Volunteer B told about his brother. His brother had been trained as a teacher. His brother’s motivation for going to teachers college was a desire to help out young people. He wanted to do something for them. As time went on, his brother got older while the students kept on getting younger, as least so it seemed. It wasn’t long before his brother decided that he simply couldn’t stand teaching any more. He used his BA to get a job as a social worker. After a few months on the job, he found himself on a pay scale equivalent to his teaching pay even after many years of seniority. He studied on his own to the point where he was able to get accepted in a school of social science as a candidate for a MS. On the entrance exam, he did just as well as young college graduates who had spent four years studying the social sciences.

These preceding two case histories were studied in order to delve into the implications of all this as far as teaching and learning objectives are concerned.
STEP 3: What are the implications of these examples as far as objectives are concerned?

C put the question directly to A, "What is the objective of your two-years' program in auto mechanics?" The way she put this question, made it evident that she would not be satisfied with a superficial answer. A replied, "My answer should be obvious. I want to turn out auto mechanics. I want the vast majority of the students who come into my course to be able to get an entry level job immediately after graduation. I think everybody wants this in their own speciality area."

D came back with, "I teach cosmetology. Many of the girls in my program are there to learn how to take care of their own hair. Some of them want to go on to college, others want to become secretaries. Not all of them are really serious about getting a lifelong career in cosmetology. Only a few of those who enter the field are thinking mainly of starting their own business someday."

E continued along the same vein, "Some of my machine shop students take my program so that they can enter the apprentice training program with some of the larger companies. One gripe they have is the fact that students who have not studied machine shop are treated just as well as my best students. This irritates me, and I really don't know what to do about it."
F shot in with her comments, "After working with a large number of my students, I have found out that the apprentice training program you are talking about with a large company is really a management training program. This company wants to train its executives from the bottom up. They start off good prospects in the machine shop. After a while they'll become foremen. After that they'll become supervisors and middle management. Industry has found out the hard way that it's easier to get a good technician than a good manager."

H started in a very soft and quiet fashion, "I teach typing. Everyone of our first year students must take this course whether he or she wants it or not. They have no choice. When I first came to this school, it was utter chaos. No matter what I tried to do to inspire students to study hard in order to get a better job, I was constantly met with the I don't care attitude. This meant that many of the students taking this course had no idea of using typing either on the job or in their personal life. My primary objective had been the manual skills necessary to type. After facing this situation, I began to ask myself if this was really the right way to go about it. Right or wrong, I've changed. I now stress attitude development as my primary objective. This means that I am preparing my students for some type of career, many of which do not involve typing as a marketable skill. I haven't worked miracles with this new approach, but at least my students seem to be settling down and enjoying it more."

Volunteer I, an agricultural teacher took up the conversation, "My husband and I used to have a small farm. After he died, I took up teaching. I noticed that a lot of the students were interested in those skills you are talking about. They wanted to learn something about machine shop, they wanted to learn something about a small business, they wanted to learn how to type, they wanted to learn how to do bookkeeping, they wanted to learn how to weld,
and they wanted to learn a lot of other things. The trouble was that they weren't interested in spending an entire year to learn them. What they wanted to learn could be picked up in a much shorter time. I didn't start the idea, but my school began to go modular. Modular is just a fancy way of saying we now have smaller length courses. These courses are intensive in that they concentrate on one of two skills at the most. These courses are practical because somebody taking a welding course doesn't have to have the intention of becoming a professional welder. Some one taking a machine shop course could just as easily go into auto mechanics or into farming. I really don't believe I am going to switch my agriculture course into a general career preparation, but at least I want to help the student who is interested in agriculture benefit from what I can give him or her."

A young beginning teacher wanted to add her opinion, "I teach basic education. I've talked to the other teachers and they all tell me the same thing. The students nowadays just simply aren't interested in reading, writing, and arthimatic unless they are tied to something much more adventure-some. This makes my job very difficult."

J paused and looked around. Many of the heads nodded in agreement with her. She continued, "I find that once I team up with a specific occupation or group of occupations, I can get the students motivated to learn basic English. It's not that they are all of a sudden interested in grammar. It points out to the fact that they realize the road to the top is paved with good grammar. This is what they want."
A moment before J had finished speaking, K started shouting out in his own inimitable fashion, "I second everything she said. In our program for training health occupations workers, we get more students than we can handle. We probably have five to six times as many applicants as you do for your basic education course. I like working with J. Instead of having to scream and shout at our students to learn better grammar, she takes care of it."
There are many things students learn that they were never taught and that never get recognized.  

He worked on and on at the conference, but few problems ever got finished.  

"I'm not farming half as well now as I know how."

I don't know how to do it, but I know how to do it, but I don't know how to teach it."

There are many things that they never get recognized, and that students learn that they ever got finished.  

Example of your own Target Technology
STEP 4

Let's study the examples in step 3 above in order to explicate the implications for diagnostic and mastery test items.

Teacher A came back with, "What's the difference between diagnostic and mastery testing?"

Teacher D shot in with, "It's quite obvious from the example you used of the former auto mechanic who learned how to become a good stone mason. When he realized that his job was not quite correct, he was making a diagnosis of what was wrong and of what he had to correct. After a while, it became obvious to him that he was doing a better job. This was an example of mastery testing. In other words, he had finally achieved the desired objective on a high level of performance."

Teacher B perked up with, "I wish somebody would analyze my examples as scientifically!"

Teacher K came back with, "A couple of years ago my subject matter didn't exist. Nobody seemed to think that health occupations were important once the needs for doctors and nurses were taken care of. Right now the whole field is changing. In other words, some teachers are trained and tested so much for only one job that they are completely helpless when it comes time to face the normal daily modern requirement of changing directions in one's career. One doesn't have to change directions entirely, but one must be capable of a certain amount of flexibility."
Let's not go any deeper into the problem of objectives for the moment. Instead, let's concentrate our efforts in an attempt to come up with a wide variety of alternatives useful to attain these preceding objectives.

The room was so quiet that no one noticed teacher F waving her hand trying to speak. She blurted out, "Is it possible that publishers, curriculum committees, and individual teachers are giving us the wrong type of resources?"

Teacher H quietly asked, "Just what exactly do you mean by that? As a matter of fact, it was your course in typing that gave me the idea. You made it quite clear to me that while many academic subjects are top heavy in knowledge objectives, the occupational areas are just as top heavy in psychomotor or manual skills. In other words, we think that training the child's hands or brain is enough to get him a job in a self-fulfilling career. I wonder if we underestimate the importance of a good attitude."

Teacher H snapped his fingers in order to call the group to attention. He continued, "I don't want to be the first to analyze my own example, but I think I ought to. I have been raised in the old school. This meant that anytime I did wrong, I could expect a punch in the mouth or a kick in the pants. With me, this worked. At the present time, I'm finding out that this doesn't work with all of my students. Whether you call it behavioral modification or simple catching the child doing good, there does seem to be new ways of motivating today's learners."

Teacher I asked, "I don't understand what you mean by behavioral modifications, but you attracted my attention when you started speaking about catching the child doing good. Exactly what do you mean by this?"
Teacher F continued, "It's very easy for me to pick fault with my students. After all, when they come into the shop, they know nothing about the machinery. They also do a lot of things that could be dangerous. If I over-stress and over-react to what they do wrong, I find out that I don't get very far in making them improve. On the other hand, when I try to understand and catch them doing something correctly, it works out quite well. Let me give you an example. If a student unconsciously follows a correct safety procedure, I stop the entire class and I compliment him for using his head. This makes him feel good and calls attention to the other students about what they should do."
Step 6:

The 25 minutes are up.

The teachers have had a chance to discuss a number of viewpoints from different perspectives.

Now that you have seen the process, are you able to apply it to your own goals.

You might ask, "How can I apply this?"

Don't look for the answer here. After all, this article began by stating the conclusions in the beginning.

Now that you have read the article, you know how these conclusions were reached.
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