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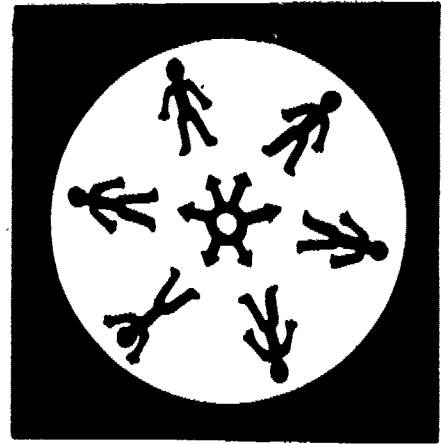
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ABSTRACT

This workbook is designed to provide the professional educator with an insight and some practical understanding of the management by objectives (MBO) process. It contains four sections, the first of which is an introduction. The next section gives an overview of MBO. It states that MBO is a process whereby two persons in an organization (a) identify goals, (b) define major areas of responsibility for an individual in terms of results expected from him/her, and (c) use achievement of results as guides for operating the organization and assessing the contribution of each of its members to the organization's mission and objectives. This section also describes the 10 step sequential flow of the MBO process which includes (a) defining roles and missions, (b) forecasting, (c) setting objectives, (d) programming, (e) scheduling, (f) budgeting, (g) establishing standards, (h) measuring performance, (i) taking corrective action, and (j) achieving objectives. The third section tells how to develop objectives and contains worksheets for the reader to complete. The last section, "Using Objectives to Manage Activity," also contains worksheets and charts. Appendixes are attached which include (a) action words for behavioral objectives, (b) common terms used in MBO, and (c) a bibliography and readings.  
 (RC)

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AN INTRODUCTORY WORKBOOK  
TO MANAGEMENT BY OBJECTIVES  
for  
DEPARTMENT OF EDUCATION PERSONNEL



U.S. DEPARTMENT OF HEALTH  
EDUCATION & WELFARE  
NATIONAL INSTITUTE OF  
EDUCATION

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July 1975

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## I. INTRODUCTION

The management by objectives system has been adopted by the New Hampshire State Department of Education as a method to provide more goal directed behavior for its professionals. While MBO is not a perfect system, it has provided the department with a management tool which can assist in more effective planning, management and evaluation.

The purpose of this document is to provide the professional educator with an insight and some practical understanding of the MBO process. Each unit within the New Hampshire State Department of Education develops its MBO statements somewhat differently- the basic concept consists of the following three steps:

- 1) Writing the objective statements  
includes (1) audience to be served  
(2) behavior to be reached  
(3) conditions existing or needed  
(4) degree which will indicate attainment of desired outcomes
- 2) Negotiation of these objectives with Superiors  
includes (1) revised objectives statement  
(2) agreed to outcomes  
(3) agreed to time line  
(4) agreed to allocation of resources between subordinate and superior
- 3) Reporting on progress toward meeting objectives  
includes (1) agreement on format  
(2) agreement on content and time line for report  
(3) agreement on amendment process

The following pages in this document can be considered worksheets. It would be most productive if you did each section, then discussed them with someone from the planning and evaluation unit.

## II. AN OVERVIEW OF MBO

- A. Management by Objectives is a process whereby two persons in an organization identify goals, define major areas of responsibility for an individual in terms of results expected from him or her, and use achievement of results as guides for operating the organization and assessing the contribution of each of its members to the organization's mission and objectives.

It is designed to determine:

- (1) what must be done
- (2) how it must be done
- (3) when it must be done
- (4) how much it will cost
- (5) what constitutes satisfactory performance
- (6) how much progress is being achieved
- (7) when and how correction action needs to be taken.

- B. Management by Objectives is a term used to talk about, think about, act in, and control the activity of an organization. Those who use the term expect a person to work in an organization and to want to produce outcomes for the organization. The outcomes which serve the needs of the persons or groups the organization was instituted to serve, are the objectives to be managed.

- C. All management activity derives from the roles, missions, and objectives of the organization as a whole, either as stated directly or as interpreted and understood by the concerned person. It is assumed that the individual manager exerts considerable influence on these roles, missions, and objectives. However, a compatibility between the direction he or she is going and that of those around him or her must be established.

Education organizations (such as the State Department of Education) have the mission to serve the needs of schools and institutions that provide education to learners. The objectives of the State Department of Education as an organization are:

The learner related goals are:

- (1) improved programs in early childhood education with emphasis upon developing competencies in the areas of reading and mathematics
- (2) improved and increased offerings in vocational education and career education
- (3) improved and increased programs for handicapped children and adults

To facilitate the improvement of programs in these three areas we have adopted seven institutional objectives:

- 1) Secure more adequate state funding to provide equality of educational opportunity for all children in New Hampshire regardless of the community in which they live.
- 2) Expansion of the programs at the Vocational Technical Colleges, Technical Institutes and the twenty regional centers.
- 3) Continued emphasis upon using the teacher certification process to improve teacher competency primarily through the staff development design.
- 4) Continued effort to develop and implement an educational accountability plan.
- 5) School district reorganization.
- 6) Increasing our capacity to assist local school districts in conducting more effectively long range planning, both fiscal and programatic.
- 7) Institute a program evaluation system within the Division of Vocational Rehabilitation.

Each person in the organization manages their time, resources, and responsibilities to support these objectives. Each person has specific objectives that state how his or her job is designed to accomplish some part of the organization's objectives. Management by objectives is a method for making each individual's statement visible to those who need to know it.

The New Hampshire State Department of Education has committed itself to utilizing management of objectives as a vehicle for planning and evaluation.

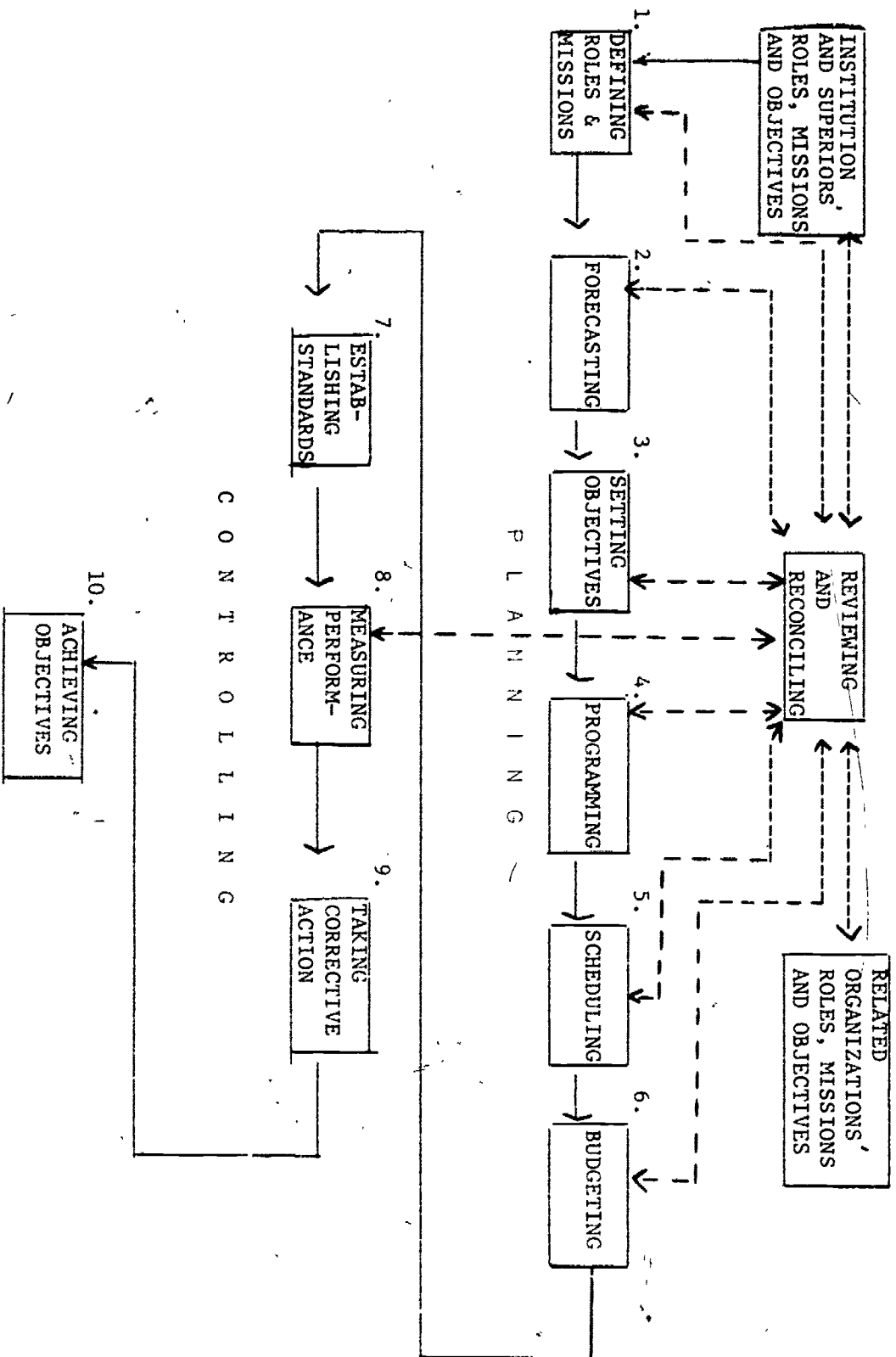
Although there are slight differences in procedures and format for each of the Divisions of the Department, there are common themes underlying the MBO process in each division.

D. MBO occurs in a ten step sequential flow. However, in practical application, individual circumstances may dictate the combining, eliminating, or taking out of sequence of some of the steps.

- 1) Defining roles and missions - determining the nature and scope of work to be performed. This is the baseline, the specific commitment that a work unit makes, its reason for existence in the organization.
- 2) Forecasting - estimating the future. Here we bring our best educated guess to bear on what is likely to happen that would affect the accomplishment of objectives.

- 3) Setting objectives - determining results to be achieved. This represents the establishment of an end line, a specific, definable, and measurable point toward which to shoot in order to effectively perform the unit's roles and missions.
- 4) Programming - establishing a plan of action to follow in reaching objectives. This involves breaking each objective down into smaller pieces of action, in effect determining what kinds of steps we are going to need to reach the goal.
- 5) Scheduling - establishing time requirements for objectives and programs. Although interwoven through forecasting, setting objectives and programming, it is considered separately as we attempt to determine the calendar time necessary for each specific objective and its program steps, taking into consideration other work activities that may have to be performed during the same period.
- 6) Budgeting - determining and assigning the resources required to reach objectives. Here we take a look at our costs (human effort, materials, facilities) before we are committed to a course of action to see whether an objective is worth pursuing at all in terms of return-on-investment. Effective budgeting involves getting the best mileage out of the limited resources available to us.
- 7) Establishing Standards - determining a gauge of effective performance in achieving objectives. Decisions must be reached as to what factors related to the objective should be measured and how much constitutes effective performance.
- 8) Measuring performance - determining actual versus planned performance. The secret here is to select the method(s) of measurement that will provide the necessary visibility to performance with the least expenditure of time and effort.
- 9) Taking corrective action - bringing about performance improvement toward objectives. This is really the only reason for the entire controlling function. Any significant variances that may be identified in step 8 should be corrected through the use of one or more of three types of corrective action:
  - (a) self-correcting action (by the accountable employee)
  - (b) operating action (by a member of management above the accountable employee) or
  - (c) management action (reviewing the management process and correcting the cause rather than the result.)
- 10) Achieving Objectives - this is the payoff, the mark of whether or not our efforts have been successful. These 10 steps are shown schematically in figure 1. You will note also that Figure 1 shows an unnumbered activity called "reviewing and reconciling" with a dotted line relationship to all the activities within the MBO process. It is not listed as a separate activity because it is a continuous process that goes on throughout all of the activities described.

Figure 1 The MBO Process





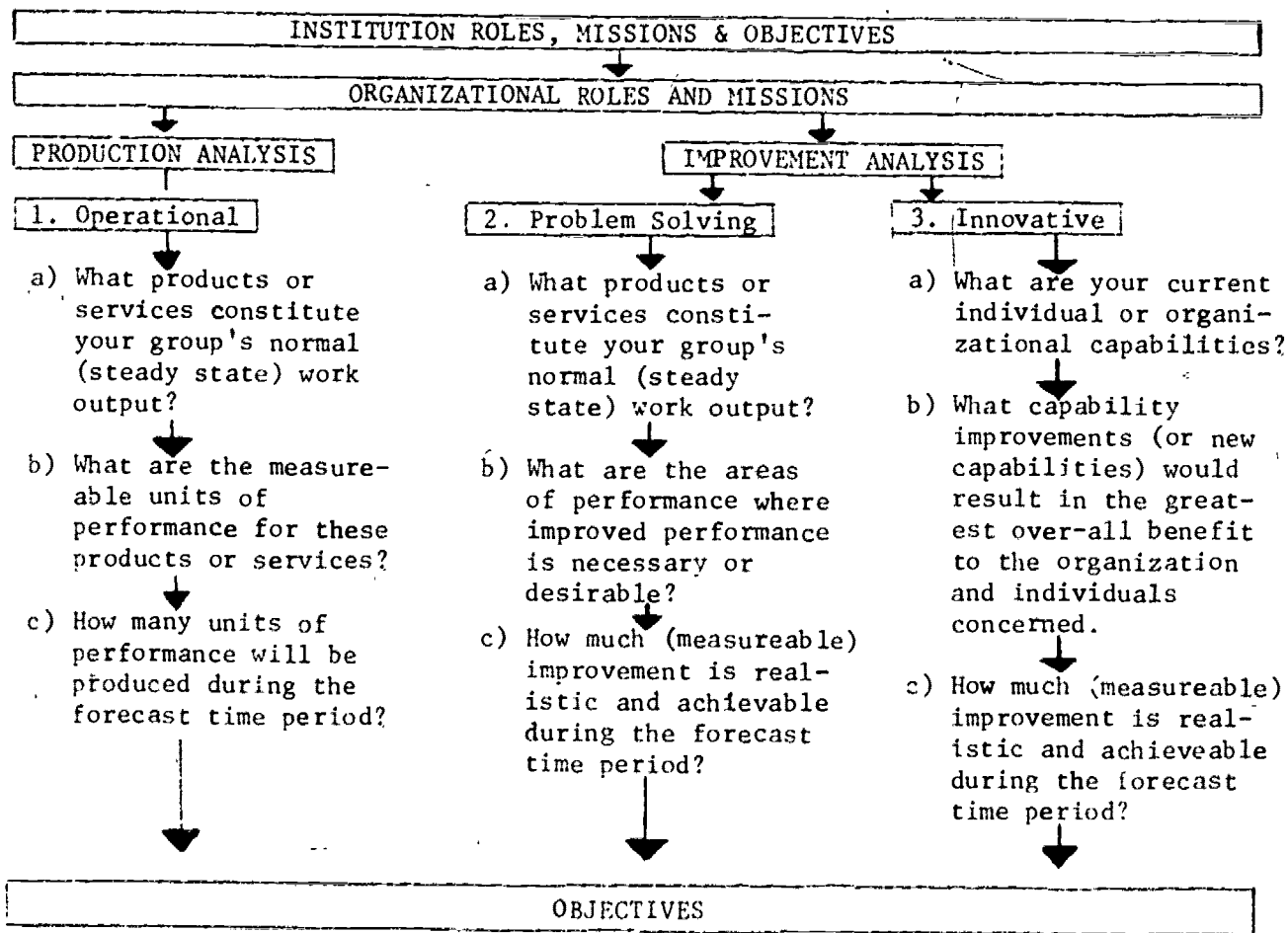
E. Setting Objectives is the Key to Management by Objectives

The following figure 2 provides a model for viewing the various roles, missions and objectives of an institution. Notice that these missions fall into two broad categories: Production and Improvement. The Improvement category is further subdivided into problem solving innovative objectives. Generally, each person within an organization will have objectives which can be categorized as operational, problem-solving, and innovative.

Objectives written in three different areas:

- (1) operational and routine efforts
- (2) problem solving efforts to improve the kinds and amount of outcomes
- (3) innovation efforts which will change how a job gets done or bring in new tasks for the institution. The relationship is shown in figure 2.

Figure 2. Analysis Routes for Determining Objectives



### Operational Objectives

Regular work activities are the operational task which accomplish the immediate purposes of an enterprise. They are, in essence, the things which have been defined as duties on a day to day, but continuing, basis. Such activities normally constitute the major part of the responsibilities one has. Improvement in efficiency, quality, and quantity of existing processes is usually the end purpose of ordinary work objectives. These objectives might cover the ongoing operations of budgetry, program monitoring and reporting.

Operational objectives are ongoing tasks, i.e., are routine in nature. They should be clarified and written in the first MBO review, each year thereafter they should be confirmed but not rewritten unless there has been a change in procedure.

### Problem Solving Objectives

This classification of objectives is designed to compliment the ordinary work classification mentioned above. Essentially, problem solving objectives deal with things which inhibit or impede ordinary work. The most serious potential weakness of this kind of objective is that it can become a substitute for developing other objectives which are goal related. These objectives might cover solving problems, new personnel procedures, changing evaluation procedures, obtaining more teacher involvement in certain programs. Problem solving and innovative objectives are written yearly in most organizations.

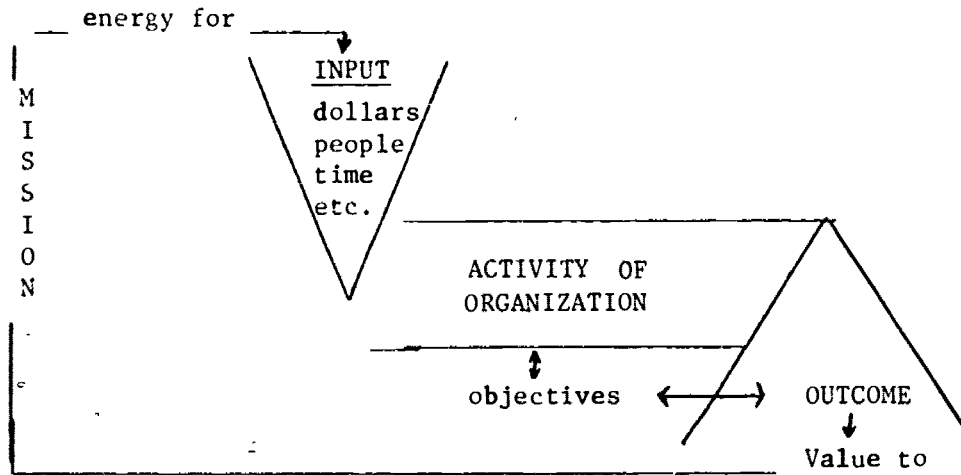
### Innovative Objectives

By setting objectives which are intended to develop new and unusual ways to achieve the purposes of ordinary work activities. Objectives for innovation differ from problem solving objectives in that they are concerned with new processes rather than streamlining of old ones. The R and D activities of a manager would fall under this heading.

Figure 3 is another model for illustrating the translation of mission statements into objectives and activities.

Objectives are the basic building block for a formal management system because they provide an organizational step in accomplishing the Mission of the organization.

Fig. 3



The difference between objectives and outcomes then is that objectives are ideals or ideas of the organization, outcomes are actual down to earth events, products, achievement in learning or learning to teach.

Specific statements of objectives describe an outcome in terms of results expected. The results should be at realistic levels based on present ability to perform. This requires maintaining a flexible attitude toward objectives. Most will have to be amended or modified.

The expected outcomes should state a range of performance so that each person has latitude to react when something is out of line.

The objectives should be in the form of a written 'contract' between those involved for some stated period of time. The contract should be the result of face to face discussion.

-Back-up documentation should be kept by all involved.

The agreement should include a procedure for specific and immediate feedback including periodic 'reviews.' The contract should recognize the personal freedom and the amount of resources needed to achieve results.

F. Advantages of MBO Contracting

Encourages long range planning and improved goal setting for development of more goal-directed behavior:

1. Provides a basis for accountability.
2. Provides for evaluation based on performance.
3. Establishes priorities.
4. Clarifies.
5. Provides for better communication.
6. Promotes better cooperation.
7. Encourages creativity.
8. Encourages leadership.

G. Disadvantages of MBO Contracting

The MBO design is incomplete, and there has been inadequate preparation for implementation.

1. The actual writing of the contracts presents problems.
2. MBO contracts may limit flexibility.
3. There are many difficulties in establishing goals.
4. There is too large a margin for error in evaluation and supervision.
5. When tied to salary, MBO becomes a "threat."
6. MBO contracting is very time consuming.
7. Many problems in communication develop with MBO contracting.
8. MBO contracting is less applicable to education than to industry.
9. MBO may lower morale and lessen cooperative attitudes.
10. MBO may lead to dehumanization.

H. Generally each professional in the organization develops six to eight objectives for a given year. This number seems to be realistic and can still permit the employee to have time to address the "crisis" or unexpected situations which develop in all organizations.

### III. DEVELOPING AN OBJECTIVE

- A. Management by Objectives depends upon an individual's ability to describe at least the key parts of his or her job which help the organization reach its objectives and mission. There are three kinds of activities which an individual does to do his or her job: operational, problem solving and innovative. When writing an objective to cover activity in any of these three areas, one follows the same basic approach.

#### DIMENSIONS OF A PERFORMANCE OBJECTIVE

- Audience: who will be affected
- Behavior: what will they have to do (see list of action verbs)
- Conditions: what resources are needed or what constraints exist which must be modified if you are to reach the objective
- Degree: how much needs to be accomplished, by what date, to what degree of quality

#### GUIDELINES FOR WRITING OBJECTIVES

Under normal circumstances, a well-formulated routine or problem solving objective will, in addition to being in the ABCD format described above, also exhibit the following characteristics:

- (1) Produce a single key result when accomplished.
- (2) Specify a target date for its accomplishment.
- (3) Specify cost factors.
- (4) Be as measurable and verifiable as possible.
- (5) Specify the "what" and "when"; avoid venturing into the "why" and "how."
- (6) Be readily understandable by those who will be contributing to its attainment, both superiors and subordinates.
- (7) Be realistic and attainable, but still represent a significant challenge.
- (8) Provide reasonable payoff on the required investment in time and resources, as compared with other alternatives available.
- (9) Specify who has the primary responsibility for achievement when joint effort is required.
- (10) Be consistent with basic organizational policies and practices.
- (11) Be willingly agreed to by all involved including superior and subordinate, without undue pressure or coercion.
- (12) Be in writing, with a copy kept and periodically referred to by all involved.

B. Sample Objectives

1. ROUTINE

Routine Objective: (for use for the first negotiation)

Goal - Promote and strengthen career education

Objective - By May 30, 1975, adapt the existing elective process so that four modules on career education are available to students.

Audience - Division of Instruction at a Technical College

Behavior - Expansion of career education modules in each field of specialization

Conditions - Funding of \$50,000 curriculum development

- Participation by 15 staff members in 8 week curriculum development workshop

<u>Degree</u> -	<u>Min.</u>	<u>Realistic</u>	<u>Max.</u>
Number of students served	200	250	300
Number of C/E units developed	30	60	90
Number of high school students involved	600	900	1,500

All routine objectives which were included in the 1968 statement of objectives will continue as previously written. A quarterly exception report will be prepared indicating:

- a) Any objective not met and the reason for not meeting it with proposed changes to ensure the problem does not reoccur.
- b) Prediction for the next quarter of any objectives it is anticipated will not be met and recommendations for changes to maximize the possibility the objective will be met.

2. PROBLEM SOLVING

Goal - Promote and strengthen career education program.

Objective - By May 30, 1975, implement three pilot programs in career education in New Hampshire.

Audience - School Board and Superintendent of Schools in Con Val, Concord and Somersworth.

Behavior - Submission of application for funding for a pilot program in career education to Vocational Ed Exemplary Program or to ESEA III by each of the 3 districts.

Condition - Full funding of the Voc Ed Exemplary Program - ability of consultant to devote 90 man days of time.

<u>Degree</u> -	<u>Min.</u>	<u>Realistic</u>	<u>Max.</u>
Number of students served	150	400	900
Number of program elements	6	12	15
Local dollars committed	50,000	100,000	300,000
#local man days at no costs to project	600	900	1,500
#of released time days	3	9	18

3. INNOVATIVE

Innovative Objectives, by their very nature, are extremely difficult, if not impossible to fit into the ABCD Format. Since they are innovative, we may not know the audience, behavior, conditions or degree. It would be more reasonable to ask that innovative objectives identify the area of concern and commit the writer to the following four points of analysis.

- a) Present Conditions: Give the statistical and qualitative facts including what others are doing.

Analysis: Internal

- (1) What are the weaknesses?
- (2) What present strengths do you see?
- (3) List the major and minor problems?

Analysis: External

- (4) What are the major threats present?
- (5) What risks are inherent in the present condition?
- (6) What opportunities exist here?

- b) Trends: If we didn't do anything with respect to this condition, where would we be in 1--2--5 years? Do we like this?
- c) Objectives: What are the conditions which would exist if we were to meet our goals in this area for the next 5 years?
- d) Options Available: List the options which might be considered (e.g. do nothing, reorganize, find a scapegoat, or something wholly new).

C. Objectives: Criteria for Testing their Adequacy

Results-Oriented

Is the outcome of the activity described?

Observability

Can the results be seen or verified by others?

Not Currently Attempted

Have the results been obtained already?

Related to Other Objectives

Can the results be given a place in relation to other objectives?

Achievability

Is there a reasonably good probability that the result can be attained?

Time-Dependent

When is the desired result expected to occur?

Conditions affecting results

Have the circumstances likely to affect the achievement of the objective been identified? (positive and negative)

Degree specified

How much is to be achieved?

D. Doing a Performance Objective

Directions: Jot down below a rough statement for each element of a performance objective. Identify all your audiences before completing the BCD section of the form. When you take more than one audience, complete a separate BCD for each behavior you expect the audience to exhibit.

Audience: who will be affected

Behavior: what will they have to do

Conditions: What resources, constraints exist or need to be available to change behavior

Degree: how much needs to be accomplished - minimum, realistic, maximum



E. Negotiating an Objective

Prior to reviewing objectives with the subordinate and the supervisor, they should ask themselves the following questions:

I. PERFORMANCE OBJECTIVES CHECKLIST

- A. Has a date been set to discuss, face to face, your analysis of the objective?      yes       no
- B. Has the subordinate and supervisor received a copy of the performance objectives?      yes       no
- C. Has the supervisor negotiated his/her performance objectives with his/her supervisor?      yes       no
- D. Has the supervisor briefly discussed the subordinates objectives with his/her supervisor?      yes       no
- E. Is the person filling out this checklist the same person who will discuss the analysis and evaluate the subordinate's performance?      yes       no
- F. Has time been set aside for an end of the year review?      yes       no

If you have checked any item in the no box, you have set up conditions which will minimize the effectiveness of the MBO Process.

Correct it before you proceed further.

## II. ANALYSIS

- A. Is the balance between problem solving and innovative objectives reasonable in light of your expectations.
- B. Do the objectives relate to the division objectives?
- C. Do the objectives represent a reasonable workload, i.e. are they attainable with effort?
- D. Do the objectives reflect realities such as obstacles, emergency and routine duties?
- E. Do the objectives show the relationship between this individual and others from whom cooperation is required, i.e. attainment is to be achieved.
- F. Do the objectives set clear areas of responsibility when two or more people are working in similar areas or between the superior/subordinate?
- G. Do the objectives stress areas of desired attainment?
- H. Do the dates for accomplishing the objectives reflect reality?
- I. Do the objectives clearly identify the:
  - 1. target audience
  - 2. behavior expected of that audience in as specific and quantifiable terms as possible
  - 3. conditions which have to be met before objective can be achieved (this is not always required)
  - 4. the degree of success stated in 4 range showing minimal levels of acceptance, mid-range, and super success level
  - 5. evaluation procedures.
- J. Is the cost of reaching the objective clear?
- K. Is the cost reasonable in terms of the benefit to be obtained?
- L. Is the objective consistent with State Board policy and State rules and regulations?
- M. Do the objectives reflect the work you expect this individual to do in the major areas of:
  - communicating
  - consulting
  - controlling
  - securing
  - participating
  - evaluating
  - disseminating



IV. USING OBJECTIVES TO MANAGE ACTIVITY

- A. The major purpose of the MBO system is to make it possible to assign clear responsibility to individuals for activities which assure the accomplishment of objectives. It is important to outline the steps required in the organization in this case the state department for getting an objective done.

Completing the following format is a useful next step:

OBJECTIVE: \_\_\_\_\_  
\_\_\_\_\_

SEQUENCE OF ACTIVITIES

PERSON(S) RESPONSIBLE

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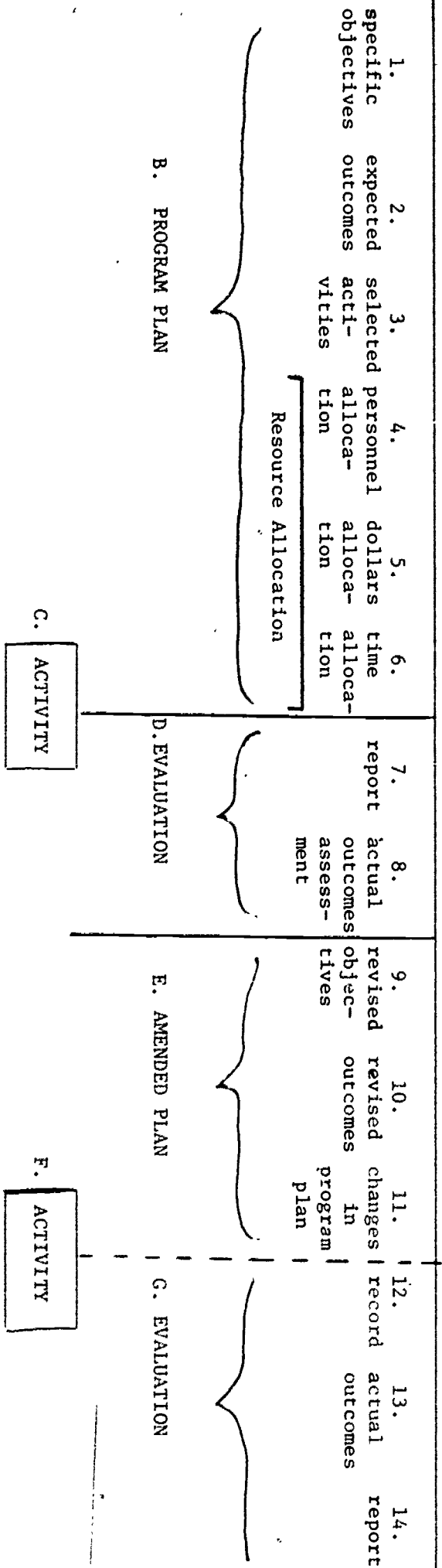
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B. When MBO is in operation, the following steps will exist.

A. Organizational Mission and Organizational Objectives



The pieces you will need from others in the organization are:

- . resource allocation or budget
- . statement of organizational Mission
- . statement of organizational Objectives

The actual level and type of activity you undertake will depend on personal initiative within the context of objectives and support you have negotiated publicly with those you work with.

C. If you need help to develop the system for your job (and all of us have and do need some) please feel free to contact the Planning and Evaluation Unit or one of the following:

Division of Administration

George Bussell  
Harvey Harkness  
Gordon Tate

Division of Instruction

John Economopoulos  
Charles Marston

Division of Post Secondary Education

Dr. George Strout

Division of Voc-Tech Education

Dr. Lila Murphy

Division Voc-Rehab

Peter Clark

APPENDIX A

Action Words for Behavioral Objectives

ACTION WORDS FOR BEHAVIORAL OBJECTIVES

<p>(A)</p> <p>Accept Account Acquire Activate Adhere Administer Allocate Analyze Anticipate Appraise Appropriate Approve Arrange Assign Assist Assume Audit Authorize</p> <p>(C)</p> <p>Change Changes Collect Compare Compile Concern Consider Contact Continue Contract Contribute Control Cooperate Coordinate Correct Counsel Create Credit</p> <p>(D)</p> <p>Decide Declare Define Design Determine</p>	<p>Develop Direct Disburse Discharge</p> <p>(E)</p> <p>Employ Engage Establish Evaluate Execute Exercise Extend</p> <p>(F)</p> <p>Follow Forecast Formulate Furnish</p> <p>(G)</p> <p>Give Guide</p> <p>(H)</p> <p>Handle Hold</p> <p>(I)</p> <p>Identify Improve Inform Initiate Insure Interpret Interview Investigate Issue</p> <p>(J)</p> <p>Justify</p>	<p>(L)</p> <p>List</p> <p>(M)</p> <p>Maintain Make Measure Meet Modify</p> <p>(N)</p> <p>Negotiate</p> <p>(P)</p> <p>Participate Perform Plan Prepare Preside Presides Process Procure Produce Program Promote Propose Protect Provide Publicize Purchase</p> <p>(O)</p> <p>Operate Organize</p> <p>(R)</p> <p>Receive Reclaim Recommend Recruit Reject Release Render</p>	<p>Repeat Report Represent Request Require Requisition Return Review</p> <p>(S)</p> <p>Safeguards Schedule Screen Secure Seek Select Serve Service Ship Stimulate Store Strengthen Submit Supervise Supply</p> <p>(T)</p> <p>Tell Terminate Test Transfer Train</p> <p>(U)</p> <p>Upgrade</p> <p>(W)</p> <p>Write</p>
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APPENDIX B

Common Words Used in MBO

## GLOSSARY

### Common Terms Used in MBO

#### ACTIVITY

The work effort involving time and resources required to complete a task or job to a given level of performance. It is represented on the network by an arrow and connects two network events.

#### ACTIVITY NETWORK

A network that uses activities rather than events as the basic building block.

#### CONSTRAINT

A limitation or restriction imposed from outside on a decision maker. Constraints may be financial, physical, timing, or policy.

#### DATA

A general term used to denote any or all facts, numbers, or letters and symbols that refer to or describe an object, idea, condition, situation, or other factor. It connotes basic elements of information which can be processed or produced by a computer. Sometimes data are considered to be expressible only in numerical form, but information is not so limited.

#### FEEDBACK

Procedures, built into a system, which provide information on how well the actual performance of the system matches the planned performance.

#### FLOW CHART

A pictorial description of a plan showing the interrelationships of all required events. It is also called a network, arrow diagram, etc.

#### MANAGEMENT

Its function is to decide on the most effective expenditure of manpower, facilities, materials, and funds needed to achieve the objectives.

#### MANAGEMENT BY OBJECTIVES

A process whereby the superior and subordinate jointly identify goals, define individual major areas of responsibility in terms of results expected of him, and use these measures as guides for operating the unit and assessing the contribution of each of its members.

Items to be agreed upon are:

1. What must be done (after careful analysis of why it must be done).
2. How it must be done (the program steps or plan of action required to accomplish it).
3. When it must be done.
4. How much will it cost.
5. What constitutes satisfactory performance.
6. How much progress is being achieved.
7. When and how to take corrective action.

#### MILESTONES

Key program events, the accomplishment of which are essential to the completion of a program. A milestone is usually represented on the network by a rectangle or square.

#### MOST LIKELY TIME

The most realistic estimate of the time an activity might consume in the opinion of the estimator. It is usually represented by the symbol (m). This time would be expected to occur more often than any other time if the activity could be repeated many times under the same circumstances.

#### OPTIMISTIC TIME

The time in which an activity can be accomplished or completed if everything goes extremely well. It is represented by the symbol (a). An activity may have one chance in a hundred of being completed within this period.

#### PESSIMISTIC TIME

An estimate of the longest time an activity would require under the most adverse conditions. It is usually represented by the symbol (b). An activity may have one chance in a hundred of being completed within this period.

#### PROGRAM BUDGETING

The preparation of a budget which reflects explicit consideration of present and future costs of various programs designed to realize objectives. It is essentially a task of determining priorities for the various objectives, because of limitations on resources, in order to achieve a coherent program of action for the government as a whole. A programmatic classification system for budget accounts. Sometimes equated with PPBS.

#### RESOURCE

An available means whose store is reduced in quantity through use. Resources can be financial, facilities, equipment, material, or personnel.

#### SCHEDULED COMPLETION DATE

A date assigned for completion of an activity or event for purposes of planning and control. It is usually represented by the symbol Ts. Where no specific date is assigned, Se equals Ts.

#### SYSTEMS APPROACH

A rational procedure for designing a system for attaining specific objectives. The methodology includes specification of objectives in measurable terms; restatement of the objectives in terms of capabilities and constraints; development of possible approaches; selection of appropriate approaches as a result of a trade-off study; integration of the approaches into an integrated system; evaluation of the effectiveness of the system in attaining objectives.

#### TASK

A related group of activities that clearly defines a segment of a program. Small programs may be considered as one task, while a system program may have a hundred or more. Tasks in a program are relatively stationary, while activities are dynamic.

#### TIME ESTIMATE

An estimate of time required to perform an activity, based upon technical judgment, experience, and knowledge of the job. Time estimates are not commitments or schedules.

#### TRADE-OFF

The weighing, on the basis of selection criteria, of the use of alternative approaches to attain an objective, with the intent to select a "best" alternative. Appropriate criteria, with differing relative importance, might include performance, timing, risk, cost-benefit, or policy.

APPENDIX C

Bibliography and Readings

- (1) George S. Odiorne --- "Management by Objectives | - The Current State of the Art"
- (2) Roland Goddu --- "Evaluation in a Management by Objectives System"

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MANAGEMENT BY OBJECTIVES

- Argyris, Chris, and Donald A. Schön, Theory in Practice Increasing Professional Effectiveness, Jossey - Bass, San Francisco, California (1974)
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MANAGEMENT BY OBJECTIVES - THE CURRENT STATE OF THE ART

During the sixties Management by Objectives (MBO) was discovered widely and changed from a narrowly applied kind of criteria development for Performance Review into a General Management System.

Origins:

The organizers of large corporations in the last half of the 19th century learned some painful lessons about management: 1. It was a giant feat to organize a large organization, and 2. It was something else to manage it profitably for survival.

What they learned and many modern conglomerators have not yet learned is that no individual can direct all the activities of a large organization, but if he can control results, he indeed can manage even the largest.

Peter Drucker, whose original studies were in General Motors Corporation, noted this distinction<sup>2</sup> spelled the idea out clearly in his lectures at New York University in the forties, and published it as a chapter in his Practice of Management in 1954.<sup>3</sup>

The application to a narrow usage, that of establishing results oriented appraisal systems where stated goals replaced personality traits as appraisal criteria, occurred in a number of large corporations. It was applied in General Mills, Inc. in 1955,<sup>4</sup> an application noted by McGregor in a well-known article in 1960 in Harvard Business Review.<sup>5</sup> Likert also noted it as a means of implementing participative management at about the same time.<sup>6</sup>

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<sup>1</sup>Dale Ernest, The Great Organizers, McGraw-Hill, 1960.

<sup>2</sup>Drucker, Peter, The Concept of the Corporation, New American Library, New York, 1964.

<sup>3</sup>Drucker, Peter, The Practice of Management, Harper, 1954.

<sup>4</sup>Balch, D. L., AMA Business Report.

<sup>5</sup>McGregor, Human Side of Enterprise, McGraw-Hill, 1960.

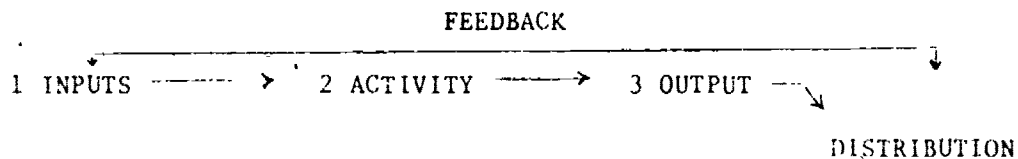
<sup>6</sup>Likert, R. New Pattern of Management, McGraw-Hill, 1961.

Yet, in such a narrow context it sometimes failed to stick. Sometimes it was seen as another Personnel Department gimmick. In other cases a change of management caused it to exit with the old guard. It was this single-use which comprised its greatest weakness.<sup>7</sup>

Schleh, a consultant who made the commercial mistake of being ahead of his time, has treated it as a general system of management.<sup>8</sup> Odiorne, following five years of monthly seminars for executives at Michigan published Management by Objectives - A System of Managerial Leadership in 1965, which captured the readership among the executive readers.<sup>9</sup> This book ties the MBO idea to the systems approach. It has been through fourteen (14) printings including foreign between October 1965 and June of 1970. Numerous other books and articles have followed.<sup>10</sup>

#### The Systems Approach:

Of the numerous kinds of "systems" which could fall within a General Systems Theory, the cybernetic-or feedback-system is usually identified as the most typical.<sup>11</sup> Among the applications of this is that of the economics of the organization. Three elements make up such a system.



Inputs are the resources committed to an idea to make it a tangible, going concern. They include capital (fixed, working, cash, receivables, inventories) labor, and materials.

Activities are the behaviors of people, designing, making, selling, keeping books, engineering, bargaining and the like which add value (presumably) to the inputs.

Outputs are the goods and services, hardware and software which come out of the system. These outputs are more valuable than all of the inputs which were used up in their making and a value added can be computed.

This value added, is the profit, the need being filled, the purpose for the INPUT BEING COMMITTED, AND THE ACTIVITY CARRIED OUT. Two ways of disposing of this surplus value are customary: (1) They are fed-back into the systems, and (2) they are distributed to the beneficiaries of the system as dividends, learning, satisfactions, benefits, needs met, and the like.

<sup>7</sup> NICB, Managing by Objectives, New York, 1966.

<sup>8</sup> Schleh, E., Management by Results, McGraw-Hill, 1969.

<sup>9</sup> Odiorne, George S., Fitman, 1965.

<sup>10</sup> See attached Bibliography.

<sup>11</sup> Boulding, K., "Toward a General Systems Theory", Journal of Management Science.



While this mini-course in the economics of an organization as a system is instructive as a map, it is also a diagram of the traps for managers and other people who are part of the system.

The easy trap is for one involved in a system to become emotionally over attached to one element of what must be a three-element system.

1. Some become input obsessed and spend their time preventing expenditure. (Think of the man who will disapprove your expense account.)
2. Others become output fanatics and heartily resist considering whether the inputs and resources are adequate, or the activities possible. (Think of the desk pounder and "I demand results not alibis" type.)
3. Far more prevalent, however, is the activity obsessed person. He is competent, professional, often dedicated but has lost sight of inputs used up, or even results sought.

Thus, in system terms Management by Objectives is a system which begins by defining outputs and applies these, outputs, statements as criteria to judge the quality of activity (behavior) and to govern the release and effectiveness of the inputs.<sup>12</sup>

In more ordinary language MBO is a system under which the manager and subordinate sit down at the beginning of each period and talk until agreement upon job goals are achieved. During the period the subordinate is given wide latitude in choice of method. At the end of the period the actual results are jointly reviewed against agreed upon goals, and an assessment of the degree of success made. The process is begun again.

#### What, MBO Should Accomplish

As a result of this procedure several normal benefits of value to the organization and the individual should be made more likely.

1. A natural tendency toward "Goals Displacement" will be alleviated. There is some research which tends to show that in human organizations a normal and perhaps natural (at least an explainable) tendency exists for people to start out toward momentarily clear goals, but shortly to become so enmeshed with activity that the goal is lost.<sup>13</sup>

In its most aggravated form the "activity" management becomes a matter of deep rooted procedures (as with salary administration, job descriptions, etc.) and attempts to revert back to basic purposes meet with strong resistance. (Do it my way.)

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<sup>12</sup>Odiorne, 1965.

<sup>13</sup>Merton, R.

MBO from the top management perspective is a direct attempt to build into management systems an unremitting attention to purpose.

2. It should clarify role conflict and ambiguity between individual managers and subordinates.

There is evidence that, left to their own devices, the average manager and subordinate manager are not apt to be in agreement about the subordinate manager's responsibilities in terms of outputs for any given period of time ahead.<sup>14</sup> Under such a lack of agreement it becomes impossible for the subordinate to "succeed" with corresponding ill effects to him in pay, bonus, promotion and recorded performance reports. Even further ill effects ensue when coaching to "improve" him probes matters such as personality, attitude, motives, background or similar proposed explanation of "failure."

MBO attacks directly the gap of expectations and directly defines "success" in specific output terms.

3. MBO should be causally associated with overall success of the organization.

Drucker has noted that in leading corporations, General Motors, Ford, IBM, GE, where size has required divisionalized forms of organization, "Management is Management by Objectives."<sup>15</sup> My own prolonged observations in leading firms is that in the more successful firms (they achieve charted goals) more people are aware of their goals than in less successful organizations. The Sears manager knows his goals better than the failing small merchant.

Participative management is not as uniformly present but is perhaps more possible under MBO than under intuitive or autocratic centralized management. This style is discretionary but in many kinds of organization (where the people have been taught to expect it) it is mandatory to avoidance of disruption.

Clarity of objectives between all links of individual managers is more likely to produce cumulative clarity of objectives

Thus, MBO should improve overall organization performance and increase the level of participation.

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<sup>14</sup>Maier, N.R.F., L.R. Hoffman, J.J. Hooven, and W.H. Read, Superior Subordinate Communication in Management. AMA Research Study #52, 1961.

<sup>15</sup>Drucker, Practice of Management, 1954.

4. When an individual is clear upon his own job objectives, his performance improves over where he is not clear.

It is to be expected that individual performance will improve when his goals are clarified, without seeking to achieve directly other side effects, even though they might well be predicted also.<sup>16</sup> The questions of motivation, attitude, enthusiasm and the alleviation of barriers to such activating forces I must leave to others.

MBO should achieve such individual improvement and growth.

The assumption here is an important one. MBO should be both functional (gets the job done) and developmental (helps the individual grow).

This congruence is vital to the survival of our economic system and the social and political system so intimately associated with it. If individual growth and corporate success were necessarily antithetical, the system could be self destructing.

In adopting MBO as a system we recognize that organizations create products and produce people who are workers as well.

MBO thus appeals to higher ranking, profit oriented chief executives and to humanistic, personnel and developmental staff persons.

#### Emergent Applications of MBO

Among the chronic areas of concern in administration to which MBO is being applied are the following:

1. Management Strategy. The system of five year (or multi-year) plans, adjusted annually takes on immediacy if there is added to it, as an integral part of such planning, the achievement of one year commitments and quarterly reviews through MBO.<sup>17</sup> Both the multi-year plan and the MBO are parts of a single aggressive and humanistic strategy of administration.

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17 Schleh, 1969.

2. PPBS in Government. In the Federal establishment since 1965 (Executive Order 66-3) the use of Program Budget Management has been mandatory.<sup>18</sup> This system calls for an adaption of multi-year planning with one year commitment and quarterly reviews for all agencies and departments of Government. For most administrators and professionals this implies that MBO will be the system used.
3. Budgeting and Accounting. Changes in accounting systems ("responsibility accounting") and extension of accounting to previously untouched areas ("Human Resource Accounting") have been closely allied to MBO.<sup>19</sup>
4. Changes in Personnel Administration Practices and Procedures to Reflect MBO. In Addition to Performance Appraisal/Selection by Objectives. A system in which desired job outputs become the basic criteria for selection has been described and is being experimentally applied.<sup>20</sup>

Salary Administration. The restructuring of job descriptions along the lines of responsibilities and outputs has already become viable in the Accountability System widely used by the late Ned Hay and his associates and provides a most logical rationale for the "Job Cluster" phenomena described by Jay Otis.<sup>21</sup>

Training by Objectives. Much of the new hard technology of training is rooted in definition of training goals in behavioral terms.<sup>22</sup> In education Mager has proposed a reconstruction of teaching in his approach to defining educational objectives.<sup>23</sup>

The insights which come from application of an output oriented system of management have not yet been fully explored, described or tested. Its possibilities are great.

#### The Problems Ahead in MBO

The major area for productive study and development seems to be most heavily in those positions identified with the management of intangible outputs. These are normally identified as "staff" positions

<sup>18</sup>Executive Order 66-3, October, 1965, Washington, D.C.

<sup>19</sup>Bullock, "Responsibility Accounting - A Results Oriented Appraisal System", Management of Personnel Quarterly, Ann Arbor, Michigan, 1966.

<sup>20</sup>Odiorne, "Personnel Administration by Objectives", Irwin, 1971.

<sup>21</sup>Otis, Jay, "The Job Cluster Method".

<sup>22</sup>Odiorne, George S., Training by Objectives - An Economic Approach to Management Training, MacMillan, New York, 1970.

<sup>23</sup>Mager, Robert F., Preparing Instructional Objectives, Palo Alto, Calif.: Fearon Pub. Co., 1962.

but would include all of the professional and service occupations including research, education, and social service occupations. The fervent attachment of the persons employed there to activities seems to be the major barrier to their solution. If they were convinced of the merits of so doing (or the motives of those who propose it) they have ample capability to define their own objectives with great skill and clarity.

The most successful approach to defining staff outputs to date have been made by Juran.<sup>24</sup> His proposal for classifying staff outputs in the categories of (1) advice, (2) service, (3) controls, and (4) research, lend themselves to specifying goals.

It requires that the staff department view itself as a producer and seller of softwares which are made and sold to internal captive customers. Such a perspective removes much of the ambiguity attendant upon activity-management, looping constantly between inputs (we need more budget) and activity (let's fool around with this idea) and back again.

Obviously, it is easier to define output goals in production and sales and what was done for a long time before MBO was described. In staff positions we miss the natural discipline of things to be counted. Therefore, it is much more necessary that we work consciously at defining softwares as goals and construct an ordering of values which describe the conditions which could exist for all possible levels of output.

#### The Problem of Ordering Criteria

While some insist that every objective must be stated in quantitative terms, experience is revealing that not every area of a business lends itself to such specificity. Staff work, research, and service professions often seek goals which can only be described or if measures are forced upon such goals they are meaningless if not diversionary from real purposes.

Yet, an objective which has no criteria to describe all of the possible outcomes, or at least those which describe the conditions which exist if the goal is fully achieved, not achieved at all or satisfied are possible even in the most intangible areas.

Certainly the industrial psychologist has great skills here. The wording of attitude and opinion questionnaires, the classifying of job difficulties with salary administration elements, and the prescription of value ranges in tests are all more complex and offer much in the MBO process.

To me it seems like a fruitful frontier for the application of the skills of the psychologist.

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<sup>24</sup>Juran, Jos., Managerial Breakthrough, McGraw-Hill, New York, 1964.