
Educational accountability must take into consideration not only the assessment of gaining new information but the discovery of the meaning of that information by the learner. The preoccupation with behavioral objectives, according to the author, provides a means for assessing informational gains, but neglects the more important aspect of assessing the extent to which personal meaning is developed and refined using the informational base.

The priority of accountability in education has focused on behavioral objectives. This trend is a response to business and industrial models of effecting behavioral changes. Automatic transfer of this system of accountability in education is an oversimplified solution to a complex problem. This system tends to de-humanize both students and teachers in the educational system. It focuses on behavior and not on the causal factors accounting for the observable behavior. Observable behavior by students may, or may not, be indicative of internalized learning.

Therefore, while behavioral objectives do provide the mechanism for measuring informational gains, they don’t provide the means to measure the second component of learning, that is, that the student has discovered personal meaning from the data.

While the author has built a case for looking at the topic of accountability in a perspective much broader than behaviorally oriented objectives, he fails to articulate precisely the expanded view of accountability. The book leaves the reader with a feeling that a serious gap exists, but with few concrete alternatives proposed to fill that gap.

The greatest strength of the book is to identify the overemphasis on the behavioral objectives approach and the need to look at accountability...
from a “holistic” or broader viewpoint. It does “hint” at what a more expanded view of accountability might include.

For practitioners in the field of Extension, the monograph provides the stimulus to look carefully at the major foci of professional responsibility that educators have in the area of accountability. These foci, according to the author, are:

1. Teachers can be held accountable for being informed in subject matter.
2. Teachers can be held accountable for being concerned about the welfare of their students and knowledgeable about their behavior.
3. Educators can be held professionally responsible for their understanding of human behavior.
4. Teachers can be held responsible for the purposes they seek to carry out.
5. Professional educators can be held responsible for the methods they use in carrying out their own and society’s purposes.

A thorough analysis of our instructional behavior in the areas indicated above would or should provide a clearer insight into how behavioral objectives complement our overall efforts to promote and document all types of learning by adults.

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Arthur W. Combs has written this booklet to enlarge the perspective of people thinking about educational accountability to include humanistic goals as well as behavioral objectives and to share his ideas of the concept of the professional accountability of teachers. He believes that the uncritical acceptance of the notion that producing behavior change is the end purpose of education is seriously distorting the educational process.

Speaking from the perspective of a humanistic psychologist, he sees the solution to the problem is for educators to adopt the position that student behavior is of educational significance only as it serves as a basis for drawing inferences about the personal meaning of new information or experience to the learner. Further, he believes that the basis of teacher accountability shouldn’t be an assessment of the behavior of the students. Instead, he maintains that it must be based on five aspects of the teacher’s professional performance.

Book Reviews
Since the topic is timely and the booklet is a publication of the Association for Supervision and Curriculum Development, it's a pity that the writing lacks focus, logical consistency, and adequately developed arguments.

Combs' personal orientation is reflected by his quote of Earl Kelley who once said, "Logic is often only a systematic way of arriving at the wrong answers," and by his criticism of objectivity in education.

Combs fails to make clear whether he's opposed to or critical of the basic conceptions of behavioral objectives as elaborated in the cognitive and affective taxonomies of educational objectives or to the partial and faulty applications of these concepts in educational institutions. The focus of the attack shifts erratically between the theoretical framework and its applications.

The author asserts that the behavioral approach to educational objectives is based on a stimulus-response psychology of learning that overlooks the personal meaning of the behavior to the actor. The argument he offers to justify the abandonment of highly specific educational objectives, however, isn't compelling:

The information explosion ... has so vastly increased the sheer volume of information as to preclude any possibility that we can ever again hope to construct a common curriculum for everyone ... Our world is immensely complex, and the kinds of persons we need to keep it running must be so capable in so many divergent ways that a common schooling precisely defined in advance would fail all of us. Even if this were not so, the second fact, namely the rapidity of change, would make the forecasting of "right" behaviors for tomorrow's youth ridiculous (p. 6).

The inference he draws from these statements is that "it is apparent that behavioral objectives approaches to accountability are applicable only to the simplest and most primitive aspects of what is expected of modern education (p. 6).

Such logic is obscure. The simple assertion that no common curriculum would be suitable for everyone is scarcely debatable, though it's irrelevant to a consideration of the applicability of behavioral objectives. Further, the fact that change is occurring isn't a reason to use or to refrain from using behavioral objectives. The argument isn't compelling and the conclusion isn't warranted.

Combs criticizes the behavioral objectives approach as being a closed system of thinking. He maintains that "it demands that ends be defined in advance. This tends to place a straitjacket on teachers and students alike and makes the learning situation a search for (right) answers" (p. 8). A careful reading of the examples of objectives and test items at the levels of analysis, synthesis, and evaluation in the cognitive taxonomy gives the lie to this claim. At these three levels the educational focus is
on the processes. The behavior elicited from the student is used to draw inferences about his method of dealing with problems.

The taxonomy of cognitive objectives produced by Benjamin S. Bloom et al., and the taxonomy of affective objectives developed by David Krathwohl et al., aren’t guilty of the sins Combs attributes to the behavioral objectives school. The cognitive taxonomy, at all levels save the lowest, uses the student behavior data as evidence from which inferences are drawn concerning the meaning of the learning to the student. The problem-solving behavior that Combs regards as being of primary importance is described as a combination of the processes of analysis, synthesis, evaluation, and application in terms of the cognitive taxonomy.

Anyone who has studied the taxonomy of affective objectives could have learned that behavioral data are collected only to serve as data from which inferences can be drawn about the student’s attitudes and values. Accordingly, it’s incorrect to describe the behavioral objectives approach as being exclusively concerned with behavior.

The author condemns “many legislators, national funding organizations, state and local boards, administrators and supervisors” because they mistakenly view the behavioral objectives approach as the way to “make a businesslike operation out of our public schools and surely save us all” (p. 11). Who wouldn’t be?

The central purpose of education, as presented in this booklet, is to produce ever-increasing numbers of intelligent persons who will be recognized by their intelligent action, that is, effective, efficient problem-solving action contributing to the fulfillment of an individual’s own and society’s needs (p. 11). Combs says “intelligent behavior is produced by successful experience in problem solving and calls for educational experience extending far beyond the learning of precisely defined skills” (p. 12). He adds, “intelligent behavior is spontaneous, creative activity arising as a consequence of confrontation with problems. It must, therefore, be assessed when the individual is face to face with the problem where he is operating as a free agent outside the restraints of the educational setting” (p. 12).

If educational evaluation must occur outside of the restraints of the educational setting, then this is a crucial problem educators will have to face. However, by rising above the constraints imposed by logic, Combs says: “It is possible to assess whether or not a student is behaving intelligently in the present. It is also possible to determine whether he is behaving more intelligently at the end of the year than he did at the beginning” (p. 13).

Psychologists, administrators, and educational researchers are taken to task in this publication because they’ve continually denied the value of teachers’ judgments and in so doing have been “undermining the be-
liefs of teachers in their own experience and capacities for observation and evaluation” (p. 15). In what appears to be an effort to clinch the argument, Combs observes “the slavish dependence of teachers upon test results for the determination of student grades in preference to their own observations of student performance” (p. 15).

Further, he expresses concern over the “unreasonable demands for objectivity” made by psychologists, administrators, and educational researchers because of the great injury they have done to our educational effort. Well now, who wouldn’t be opposed to unreasonable demands that produce unhappy results? But the labeling of some unidentified demands as unreasonable isn’t as convincing as demonstrating the unreasonableness of some specific demands.

Many readers may be surprised to find that Combs seemingly regards objectivity as an undesirable characteristic of teachers. He states: “Our research at the University of Florida on good and poor teachers found objectivity to be correlated negatively with effectiveness” (p. 15). Regrettably, he provides no further information on this unusual finding, choosing instead to cite the research report in a footnote.

So, this reviewer and most readers will probably remain uninformed concerning: (1) what criteria were used to classify “good” and “poor” teachers, (2) what was used as the index of objectivity, (3) what criteria were used to rate effectiveness of teaching behavior, and (4) the size and the statistical significance of the negative correlation. Most readers with some grasp of educational research can be predicted to be reluctant to jettison objectivity (which with reliability and validity comprises a researcher’s holy trinity) solely on the basis of a bald statement of a conclusion.

Internal inconsistency is a serious problem in this publication. Combs reports that his research on good and poor teachers found that good teachers were “seeking to free their students rather than to control them” (p. 17). Yet, two pages later he cites research by M. M. Hughes to show that a specific teaching act may be scored by an observer as controlling and directing; by the teacher as assisting and helping; and by the student as aiding and facilitating, perhaps even loving. All three ratings may have been reliable, but they could scarcely be regarded as yielding an objective finding. No attempt is made in this booklet to reconcile the apparent inconsistency.

While criticizing the behavioral objectives approach enthusiasts for their inadequate understanding of the purposes of education and the complexities of assessment, Combs himself seems to present the holistic-inferential approach as having only advantages and of promising marvelous results. He claims that “the attempt to approach accountability through assessment of personal meaning is not only likely to be more
effective, it has additional advantages of great practical value in the
classroom. The approach is far simpler to manage than are highly specific
lists of behavioral objectives, because with such an approach there are
fewer concepts to master. Attention can be given to basic principles rather
than to limiting details” (p. 29).

He also believes, but doesn’t explain how, teachers changing from a
behavioral objectives approach to one of accountability through the as-
essment of personal meaning approach will be more relaxed and happy
on the job, will be empathetic with students, and have warmer and more
human relationships with them (p. 30). The process is easier for teachers
because it makes it possible for them to move quickly and efficiently to
vital understandings without “the plodding necessities imposed by the
behavioral objective approaches” (p. 31).

Yet, he insists that “the holistic-inferential approaches do not deny
the validity or usefulness of more atomistic approaches; they include
them and extend beyond them” (p. 31), hence the subtitle “Beyond Be-
havioral Objectives.” So we’re told that it’s possible to simplify an
approach, not by changing it, but by adding a subsequent inferential
process. The author doesn’t explain how such addition accomplishes
subtraction.

The last major theme of the publication is teacher accountability.
Arguing by analogy, Combs says that just as doctors aren’t held respon-
sible when a patient dies, teachers shouldn’t be held responsible when
students don’t learn. Instead, he proposes that teachers, like doctors,
should be held responsible for “being able to defend in the eyes of their
peers that whatever they did had the presumption of being helpful when
applied” (p. 36). He recommends that teachers be held accountable for
behaving professionally, that is, (1) for being informed in subject matter,
(2) for being concerned about the welfare of students and knowledgeable
about their behavior, (3) for their understanding of human behavior,
(4) for the purposes they seek to carry out, and (5) for the methods they
use in carrying out their own and society’s purposes (pp. 36-37). The
complexities of this approach aren’t discussed.

The behavioral objectives approach as exemplified by the cognitive
and affective taxonomies has probably been misinterpreted and mis-
plied by accountability enthusiasts seeking simple methods of dealing
with the assessment of educational efficiency and effectiveness. That they
have done so is worth calling to the attention of all persons concerned
with educational accountability. It’s unfortunate that in trying to do so
Combs has failed to make clear the distinction between his criticisms of
the theoretical framework for cognitive and affective behavioral objec-
tives and the deficiencies in the attempts that have been made to apply
them. The result is that this publication, because of its lack of focus,
clarity, and logical consistency is more likely to add to the misunderstanding of the problems of educational accountability than to contribute to their solution.


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This is an excellent treatise on the process of agricultural modernization in less-developed countries as seen by researchers and international scholars. It comprises eight basic papers, related critiques, and summary analyses emerging from a conference on concepts and strategies for behavioral change held at Cornell University. The contributions are organized in five parts.

In their introduction, the editors commend the systems analysis approach, and specifically the change agent-change target model, as a useful tool for studying the agricultural development process.

Part I deals with complementaries in macro and micro approaches. Arthur Mosher identifies, in main, the “farming,” “agri-support,” and “agri-climate” elements of the target system and specifies eight elements in the agricultural development process. Karl Deutsch recognizes political mobilization as a major force in this process.

In discussing technology and its use (Part II), Ralph Cummings indicates the inadequacy of adaptable technology, and Paul Leagans stresses systemic linkage between knowledge centers and change targets.

Part III is concerned with the economy and the polity. Kenneth Parsons emphasizes national agricultural/economic policies and an active state role. Frederick Frey sees governmental administrations committed to exploitive, regulatory, or developmental goals. Jayant Lele considers the fundamental problem to be one of regulatory structures trying to achieve development goals.

In Part IV, "Social Science and Development," Irwin Sanders suggests a social relationship model for studying behavior change, while Harry Triandis adds a sociopsychological dimension involving personality and culture systems.

Part V is a synthesis of the concepts and strategies indicated. Charles Loomis recommends the social system model and a macro-
economic approach. Arthur Bunting emphasizes the importance of applied research in the agricultural sciences using quantifiable criteria. James Heaphey implies that control is an inexorable element of administrative organization for managing change. John Holt gives an excellent resume of the concepts and strategies suggested by the authors that could be adopted by developing countries and/or developed countries trying to help them.

This book synthesizes a wealth of multidisciplinary information into broad concepts and strategies that are meaningful to academicians, researchers, administrators, and field workers in Extension and other developmental/educational areas. To the Extension researcher, the book reiterates several analytical tools and opens up a number of interesting research possibilities. The book serves as a reminder of Extension's stake and responsibility in improving agriculture in the developing countries, and provides pragmatic conceptual tools to perform this role.

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The authors have two intents: (1) to enlarge the Extension professional's concept of programming and (2) to provide a "conceptual schema" that in effect defines the enlarged concept advocated.

There are four "phases" to this schema: (1) the institution and its renewal processes, (2) linking the institution to its publics through need analysis and leader involvement, (3) program design and implementation (consisting of long-range programs, plans of work, and activating plans of work), and (4) program evaluation and accountability. Each of these phases is described in greater detail, and "processual tasks" necessary within each phase are prescribed.

The main problem of the monograph is the language. It's often productive to introduce new or more precise concepts to advance a field of study; this isn't the case with this material. This is jargon, and the jargon obscures. It's not relieved by illustration or example. It's frustrating, and limits the usefulness of the monograph.

With patience, the reader can overcome the language problem. But other, more subtle problems concern me.

First of all, although the authors talk about institutional relevance and renewal, many of their ideas for managing the institution and programming imply conformity and a monolithic organizational system. A
diversity of goals and approaches, a pluralism of values that’s healthy and renewing (and uncomfortable), are implied to be undesirables to be eliminated, rather than creative forces to be nourished.

Secondly, the philosophy toward learner involvement in decision making about his own learning seems to imply planner omniscience. A reciprocal learning environment, an honest and complete sharing of decision making isn’t suggested for the reader’s consideration. For example, note the following paragraph from page 10:

... the forward-looking educational change agent must maintain, as his hidden agenda, the pursuit of the ideal by learners in terms of their behavior. This ideal, expressed in macro needs and high level learner performance (objectives), provides the change agent with a map or design for diagnosing learner deficiencies, identifying and sequencing learner objectives designed to help learners fulfill needs depicted by these deficiencies, and the selection and organization of learner activities designed to help learners acquire the behavior specified in the learner objectives. [Italics mine]

Thirdly, the schema is so oriented to the institution, to efficiency of institutional functioning, to systems and subsystems, it impresses me as having lost sight of the human being (both the educator and the learner) and of the humanness that would give more recognition to the quality of giving and caring between educators and learners—of the humanness that wouldn’t think in terms of need “to interface with this leadership” (p. 8). It has made the institution’s need for a long-range program more important than the learner’s right to discover his own needs step by step as he learns and grows, or than the excitement of evolving his own learning program.

Finally, the approach to planning presented in the monograph is only one among several, yet the alternatives aren’t identified. The approach here is one combining the Tyler model and the systems model. An evolutionary or organic model of planning isn’t mentioned. Many Extension professionals want alternatives that will stimulate their thinking rather than prescriptions such as those provided in this monograph.

I feel the authors have provided a needed focus on the institutional level of programming and have performed a difficult synthesis of ideas from several highly relevant disciplines. Their ideas may stimulate some readers, but the impact of the monograph will be slight. Hopefully, it will stimulate others to give further attention to the complexities of programming.

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