The CIPP Evaluation Model was originally developed to provide timely information in a systematic way for decision making, which is a proactive application of evaluation. This article examines whether the CIPP model also serves the retroactive purpose of providing information for accountability. Specifically, can the CIPP Model adequately assist educators, after the fact, to account for their decisions and actions? If so, the CIPP Model is a powerful tool for making and implementing decisions and for post hoc accounting for those decisions and actions. The remainder of the article describes the CIPP Model, presents a conceptualization of accountability, and analyzes the potential of the CIPP Model for meeting the information requirements of accountability. (Author)
THE RELEVANCE OF THE CIPP EVALUATION MODEL FOR EDUCATIONAL ACCOUNTABILITY

Daniel L. Stufflebeam
The Ohio State University

Paper read at the Annual Meeting of the American Association of School Administrators
Atlantic City, New Jersey
February 24, 1971
THE RELEVANCE OF THE CIPP EVALUATION MODEL FOR EDUCATIONAL ACCOUNTABILITY

Overview

The CIPP Evaluation Model was originally developed as a means to systematically provide timely evaluative information for use in decision making. Use of the CIPP Model thus is intended to facilitate educational improvement through a proactive approach to evaluation.

In this symposium I have been asked to consider whether the CIPP Model also affords an adequate means for accountability. This question concerns a retroactive, as opposed to a proactive, use of evaluation. Specifically, does the CIPP Model provide a useful means by which educators, after the fact, can adequately account for their decisions and actions? If so, the CIPP Model provides a powerful tool to educators both for making and implementing decisions and for post hoc accounting for those decisions and actions.

I believe that the CIPP Model does provide a sound framework for both proactive evaluation to serve decision making and retroactive evaluation to serve accountability. I welcome this opportunity to explain and test my reasons for this position.

The first part of my presentation will attempt to acquaint you with the essential features of the CIPP Model. The second will analyze the relevance of the CIPP Model for decision making and accountability in educational agencies.
Sets of handouts have been distributed to assist you in following my presentation. Please refer to the first one.

Introduction to the CIPP Evaluation Model

This first chart is provided as a convenient list of references to the CIPP Model, to which you may wish to refer in the future.\(^1\) It is to be noted that the CIPP Model is a comprehensive approach to evaluation. It has been developed through individual and group conceptualization efforts and derived its major empirical base from the work of The Ohio State University Evaluation Center in developing and installing the Department of Evaluation and Research in the Columbus, Ohio Public Schools. For more complete treatment of the model than can be provided here, you are referred to the list of references in your handouts. The most comprehensive of these references is the Phi Delta Kappa-sponsored book, *Educational Evaluation and Decision Making*, which is to be published next month by the Peacock Publishing Company.

Evaluation Defined

Now please refer to the second of your handouts. This chart includes the definition of evaluation which is basic to an understanding of the CIPP Model. You will note that evaluation is defined as THE PROCESS OF

\(^1\) This list of references appears at the back of the paper.
DELINEATING, OBTAINING, AND PROVIDING USEFUL INFORMATION FOR JUDGING DECISION ALTERNATIVES. There are three important points in regard to this definition. First, evaluation is conceived of as a systematic, continuing process. Second, the evaluation process includes three basic steps: the delineating of questions to be answered and information to be obtained, the obtaining of relevant information, and the providing of information to decision makers so that they can use it to make decisions and thereby to improve ongoing programs. Third, evaluation is conceived of as a process to serve decision making. Hence, proper implementation of the CIPP Model requires understanding of educational decision making and procedures for projecting decisions to be serviced.

This definition is further illustrated in your third handout. As shown in that chart, activities are evaluated to influence decisions, which influence activities, which are in turn evaluated, ad infinitum. The loop to the right of the evaluation block in the chart reminds one that the evaluation process always includes three steps: delineating the information to be collected, obtaining the information, and providing the information to decision makers.

The Framework for the CIPP Model

Based upon the given definition of evaluation, it is possible to derive the basic framework for the CIPP Evaluation Model. That framework
is depicted in your fourth chart. Two key dimensions have been combined to form a matrix as the basis for the CIPP Model. The vertical dimension includes the three steps in the evaluation process called delineating, obtaining, and providing, while the horizontal dimension includes four kinds of evaluation, called context, input, process, and product. The acronym CIPP was derived from the first letters of the names of these four kinds of evaluation. I have already described the dimension which includes delineating, obtaining, and providing as three steps in the evaluation process. Now I will comment further about the four kinds of evaluation. Then we can consider how the two dimensions interact to form the basic framework for the CIPP Model.

Since evaluation should serve decision making, it is necessary to know the decisions to be served. According to the CIPP Model there are four kinds of decisions, called planning, structuring, implementing, and recycling, which respectively are served by context, input, process, and product evaluation. These four evaluation types are portrayed in your fifth handout in relation to the four types of decisions.

Context evaluation provides information about the strengths and weaknesses of a total system to assist in planning improvement-oriented objectives at each level of the system. Input evaluation provides information about the strengths and weaknesses of alternative strategies which might be chosen and structured for the achievement of given objectives.
Process evaluation provides information about the strengths and weaknesses of a chosen strategy under conditions of actual implementation, so that either the strategy or its implementation might be strengthened. Product evaluation provides information for determining whether objectives are being achieved and whether the change procedure which has been employed to achieve them should be continued, modified, or terminated. Basically, then, the CIPP Model has been developed to answer four kinds of questions: What should we do? How should we do it? Are we doing it correctly? and Did it work?

Given these general descriptions of the four kinds of evaluation, we can now discuss each kind further in relation to the three steps in the evaluation process. For that purpose, please refer to your sixth handout.

Context Evaluation

As noted, the purpose of context evaluation is to systematically provide information that can be used by decision makers to make planning decisions regarding the establishment of new objectives, modification of existing objectives, or confirmation of present objectives. To fulfill this purpose a systematic context evaluation program must delineate, obtain, and provide appropriate information in time to make planning decisions.

Delineating. Delineation of context evaluation should include on-file records of the operational specifications and goals of the major
programs of the institution, and projections of the "planning" decisions that must be made with respect to each of these programs during both the immediate and the longer-range future. Anyone calling upon the context evaluation section of the institution should be able to obtain printed descriptions that include specific objectives and procedures that are projected for each of the institution's programs; and they should be able to obtain an annotated list of the projected future decisions to be made with respect to the objectives for each program in the institution.

Another delineating activity is systematic contact between the context evaluators and decision makers for the purpose of identifying emergent problems that might require decisions to change objectives or priorities in the institution.

Obtaining. To aid planning decisions, information must be obtained which identifies unmet needs, unused opportunities, and problems. An ongoing program of data collection is needed with respect to the achievement of institution objectives at the overall institution level and at the level of each of the programs in the institution. This information should be categorized and stored systematically, such that decision makers could, upon request, receive profiles which explain generally how well the institution and its subunits are achieving institutional goals.

The context evaluation files should contain up-to-date lists of unmet needs that should be serviced by the system. These lists should
be available to any ad hoc group which is organized to study needs and/or problems in the institution. Maintenance of such up-to-date lists should prevent redundant data-generating activities.

Data should also be obtained and filed in retrievable form relative to opportunities that might be used to achieve institution objectives. Such data would center on, but not be limited to, funding opportunities to support institution programs. It would also seem essential to obtain and record information about the nature and effectiveness of relevant innovative efforts in other institutions.

It cannot be overemphasized that in collecting context evaluation information, the perceptions of the institutional constituencies should be surveyed and analyzed. Planners in the institution must be aware of how their products, whether from research, development, instruction, or leadership activities, are perceived and employed outside the institution.

Providing. Context evaluation reports should be provided annually to all decision bodies in the institution being served. Such reporting activities should include both the dissemination of printed material and face-to-face oral presentations to particular decision groups to assist in interpreting the information relative to particular programs. Such decision groups could include boards of education, administrative cabinets, groups of principals or individual school principals, project directors, supervisors, teachers, students, and parent groups. Annual reports to the faculty of an
institution at large might well take the form of profiles which describe the performance of an institution as a whole in terms of the institutional goals, and specific profiles which describe the performance of each institutional program with respect to its objectives. Context evaluators should work closely with the institutional programs so that the information provided by such profiles could be used to improve institutional programs.

Input Evaluation

Next, we turn to input evaluation which has as its purpose to identify and assess alternative program strategies for achieving given objectives and to provide information to assist in detailing particular strategies. To fulfill these purposes, an input evaluation unit must possess personnel, resources, and procedures to be used in conducting ad hoc input evaluation studies after a decision which specifies new objectives. Then it is necessary to inquire how the chosen objectives can be efficiently and effectively achieved.

Delineating. The delineating step for an input evaluation involves the translation of given objectives into criteria and alternative procedural strategies. These should be worked out jointly by those who have set the objectives and program personnel. The input evaluation team will assess alternative strategies, but will not formulate them. A complete record should be developed concerning the outputs of the delineating steps.
Obtaining. Obtaining is the gathering and analysis of criterion information for each of the alternative strategies which was specified during the delineating step of input evaluation.

To obtain such information, reports should be developed for each of the identified strategies, which reflect their strengths and weaknesses relative to the given objectives. These reports should contain statements by both advocates and adversaries of the strategies. Also, they should reference relevant research and development literature pertaining to past use of the strategies. In some cases where a very expensive program might be under consideration, it would also be desirable to obtain pilot test information for the competing strategies. Under such conditions quasi-experimental designs could be employed.

Providing. The evaluation unit should report input evaluation information to the decision makers in the form of individual reports for each of the competing strategies. Further, there should be an analysis of the strengths and ease of use of each strategy relative to achievement of the given objectives. If a strategy aids achievement of one objective, but hinders another, the relative effect of the strategy on the overall program should be analyzed.

Process Evaluation

Process evaluation is designed to provide information during the implementation stages of a project or program, which can assist program
managers to operate the program according to its design, improve the program design as effects are indicated under operating conditions, and to make structuring decisions which could not be made during the preparation of the program design. A secondary purpose of process evaluation is to provide a complete description of the actual program activities. Such a description should be prepared to assist program replication and to assist in determining why program objectives were or were not achieved.

**Delineating.** The delineating step for a process evaluation involves identification of potential procedural barriers, structuring decisions that will have to be delayed until the program activities are under way, and the major features of the program design for which descriptive information should be obtained. This delineating step should be conducted after a program design has been developed by those responsible for implementing the program. The focus of the delineating activity is the approved program design.

**Obtaining.** Information to be obtained in process evaluation involves a daily monitoring of project activities in accordance with variables identified in the delineating step. Techniques which can prove useful for monitoring include daily logs, observation, interviews, questionnaires, open-end reaction forms, and so forth. A complete file of process data should be maintained.
Providing. Process data should be provided regularly to project or program managers. Such information should be provided whenever it is needed for preprogrammed decisions or the removal of procedural barriers. In some cases the feedback can be daily, as in a special short-term training institute. In others it might be weekly or even monthly. At the end of a project or program cycle the process evaluator should prepare a report which (1) describes the actual procedure that occurred and (2) identifies and assesses discrepancies between actual procedure and the procedure specified in the original program design.

Product Evaluation

The purposes of product evaluation are to relate outcomes to objectives and to assess the overall worth of a procedure in terms of its effects.

Delineating. Variables for product assessment should be delineated in terms of the objectives which have been selected and in terms of the overall problems that a project or program has been designed to solve. The product assessment person and the program personnel should define criterion variables which relate directly to objectives.

Obtaining. Product information should be obtained by taking both interim and final measures of product criterion variables. To the extent possible, such measures should be obtained so that product and context data can be compared. In determining the extent to which objectives were achieved, one should consider the effect of the product on the overall
needs or opportunities which motivated the development of the objectives. Major approaches to product evaluation use true experimental design, quasi-experimental design, and comparison of products achieved with specified standards.

Providing. Product evaluation reports should be developed and communicated both during and after a project or program cycle. Such reports should provide both descriptive and judgmental information about project achievements. Achievements should be analyzed in terms of the extent to which the intended design was carried out. If satisfactory products are not being achieved, it will be important to consider process information which would indicate whether or not the designed procedure had been implemented as intended.

This concludes my description of the basic framework for the CIPP Evaluation Model. In the next section I will provide my analysis of the relevance of the model to accountability. Before moving to that section, however, I want to emphasize that what you have just heard is merely a brief description of the basic rationale for the CIPP Model. It is by no means the complete model. For an in-depth understanding of the model I would again refer you to the references which are listed in the first chart in your set of handouts.
Relevance of the CIPP Evaluation Model to Accountability

Accountability Defined

In my vocabulary, accountability means the ability to account for past actions in terms of the decisions which precipitated the actions, the wisdom of those decisions, the extent to which they were adequately and efficiently implemented, and the value of their effects.

Given this definition, a person who is responsible for an action program should be able to give defensible answers to sets of questions concerning both the ends and means of his program. The answers should be defensible in light of present scientific and technological knowledge; in terms of some explicit set of moral, social, institutional, and individual values; and in terms of appropriate performance data.

Several questions should be addressed concerning ends. What objectives were chosen? What was the wisdom of those choices? How adequately did program personnel pursue the chosen objectives? How well were the objectives achieved?

Questions concerning means refer especially to program designs. What designs were chosen? Were they chosen for good and sufficient reasons? To what extent were they properly implemented? Of what value were their primary, secondary, and tertiary effects?

Given this conceptualization of accountability, we can now consider the question of the relevance of the CIPP Model for meeting accountability needs.
Two charts have been prepared for that purpose. Please direct your attention first to Chart No. 7 labeled "The Relevance of the CIPP Model to Decision Making and Accountability."

That chart has two main dimensions—context, input, process, and product evaluation across the top and different uses of evaluation down the side, including both decision making and accountability.

The main decisions which are serviced by the CIPP Model are summarized in the first row of the matrix. Since you are already familiar with these, I shall not go over them again. I will instead analyze the second row in the chart which refers to accountability.

As shown there, context evaluation provides a record of objectives which were chosen in the past and the bases for their choice. This, I think, is the fundamental kind of accountability. When outsiders, including the community, representatives of funding agencies, and external evaluators, come into a system and pose basic questions about the value of objectives being pursued in a system, certainly educational practitioners need to be able to identify their objectives and the rationale for those objectives. What are the objectives? Why were they chosen? What assumptions do they make? Especially about the needs of children to be served? Are those assumptions internally consistent? Are they true?
Are they morally, socially, and scientifically valid? Certainly these are critical questions, questions that educators should be prepared to answer. Context evaluation, I think, provides a basic means to help educators in answering these questions.

Next let us look at accountability with respect to input evaluation. As noted, input evaluation should provide a record of chosen strategies and designs, as well as the reasons for their choice. Why was a particular Title I project design developed? Was it because it provided the most promising approach to the achievement of important objectives? Was it because some influential funding agent favored the approach? Was information available to indicate that it was better than some other alternative or set of alternatives? What kind of information was available? Did it include evidence of past effectiveness for such a strategy? Were cost data available? Was some information available to indicate how compatible that particular strategy would be in the particular system in which it was to be installed? Educators obviously need to be prepared to answer these questions if they are not to be subject to charges of irresponsible spending, or merely being too responsive to current fads and political pressures.

As noted for process evaluation, a record of the actual process as it occurred would be available through use of the CIPP Model for accountability purposes. If a particular procedure was not successful, was it not
successful because the project design was never in fact implemented, or was it because the design, though implemented correctly, was simply inadequate to achieve desired objectives? If we but reflect on the controversy that surrounded the early experiments with modern mathematics, I think we can understand the importance of process evaluation-type information for accountability. You will recall that many persons asked whether the "no significant difference" findings comparing modern and traditional mathematics curricula were in fact due to modern mathematics curricula being no better than traditional curricula, or to the fact that teachers actually had never implemented the new modern math curriculum. Process evaluation was needed for accountability with respect to those experiments.

Finally, the CIPP Model calls for a record of attainments and of decisions about procedures based upon information about the achievements of those procedures. If a particular project was continued year after year, was it because that project in fact had been successful in achieving its objectives or was it merely because someone interested in the procedure was still in the system and wanted to persevereate in carrying it through? Or might it have been because more Federal money was available for that procedure, irrespective of its effectiveness? On the other hand, if a procedure were terminated, was it terminated merely because of a lack of funds from the outside, or was it terminated because
it in fact had not worked? These obviously are important accountability questions. Product evaluation studies provide the kind of information needed for this type of accountability.

Based upon the analysis of Chart 7, the CIPP Model obviously has relevance for accountability. For a more complete analysis it is necessary to consider whether the CIPP Model meets the data requirements that are implied in this paper's conceptualization of accountability. For that purpose please refer to Chart 8.

That chart is a matrix comprised of two dimensions—the four kinds of evaluation and the basic data requirements for accountability. Check marks in the cells of the matrix indicate the basic data requirements that are met by each kind of evaluation.

As shown, all specified data requirements are met by the CIPP Model. Context evaluation identifies objectives that were chosen, the reasons that they were chosen, and the goal-related reasons for the choice of procedural designs. Input evaluation indicates whether stated objectives were the ones that were actively pursued, what particular designs were selected, and why they were chosen over other alternatives. Process evaluation confirms further whether stated objectives were actually pursued and whether procedural specifications were actually implemented. Product evaluation reveals whether objectives were achieved and what main and side effects resulted from the implementation of a project.
Use of the CIPP Model to Meet Accountability Needs

In Chart 8 there is further indication that the CIPP Model provides a powerful framework for meeting accountability needs. However, two further points need to be made concerning how the CIPP Model must be used if it is to provide accountability in education.

First, no matter how well internal evaluation is performed, no matter how completely the CIPP Evaluation Model is implemented, there is still the need for outside, independent audits and checks on the system. Outsiders should be brought in periodically and invited to ask hard questions, to make judgments, and in general to provide an outside, external, summative kind of evaluation with respect to a system's goals, designs, procedures, and results. Such an outside evaluation can be performed much more thoroughly if an internal evaluation group is performing the same function internally and thereby providing some of the basic data for the external evaluation. Obviously there will be times when the internal evaluation group will not be credible with respect to certain audiences for its evaluation reports. Those are important occasions when an outside opinion is absolutely necessary.

In relation to this point, it is further to be noted that there is much to argue for a cybernetic relationship between an internal evaluation unit and all of the decision-making levels in a system.* It is highly important

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*I am indebted for this important point to Dr. Patrick Tool.
that evaluation service decisions at all levels of the system and that information not be screened and filtered through one particular bureaucratic level. This will be a hard change to make in many institutions, but one which I think can lead to a substantial freeing of a system and to more responsibly autonomous performance on the part of persons lower down in the system but obviously much nearer to the educational action.

Conclusion

In conclusion, I think that the CIPP Evaluation Model promises a sound accountability system, both for ongoing normal efforts of a system and for change efforts in that system. In that vein I recommend the CIPP Model to you. Not only does it provide post hoc information for accounting for past decisions and past actions, but also in a formative sense it provides information proactively to decision making so that decision makers can be more rational in their decisions in the first place. The system which provides such a powerful combination would, it seems to me, be a great improvement over social accounting and standardized test information systems which are typically found in schools, colleges of education, government education agencies, and other education agencies.

Summary

To summarize, I have attempted to address the issue of the relevancy of the CIPP Evaluation Model to concerns for accountability. First I
defined the CIPP Model as a function of two basic dimensions, including three steps in the evaluation process called delineating, obtaining, and providing, and four kinds of evaluation called context, input, process, and product. Then I described the particular accountability needs that are served by each of the four kinds of evaluation. I also urged that both external and internal evaluations are needed to service both decision-making and accountability needs, and that internal evaluation should have a cybernetic relationship to decision-making levels. My concluding opinion was that the CIPP Evaluation Model provides a sound evaluative framework to service both decision-making and accountability needs. Thank you for your attention.
AASA ANNUAL MEETING
1971

Charts for
The Relevance of the CIPP Evaluation Model for Educational Accountability

Daniel L. Stufflebeam
Ohio State University
Chart 1: REFERENCES TO THE CIPP EVALUATION MODEL


Chart 1 cont.

13 S. C. Rankin, "Design for Evaluation of the Elementary Program of the Detroit Public Schools" (Detroit Public Schools, mimeo, April 1970).


19 Dolores Gidney, Howard O. Merriman, Calvin Smith, and George Overholt, "Evaluation Report to The Columbus Public School System, Regional Service Centers Project" (The Ohio State University Evaluation Center, mimeo, September 1967).


21 Walter L. Marks, "Progress Report No. 2, Context Evaluation" (The Ohio State University Evaluation Center, RFP No. 70-12, September 10, 1970).
Definition: EVALUATION IS THE (1. PROCESS) OF (2. DELINEATING), (3. OBTAINING), AND (4. PROVIDING) (5. USEFUL) (6. INFORMATION) FOR (7. JUDGING) (8. DECISION ALTERNATIVES).

Terms:
1. Process. A particular, continuing, and cyclical activity subsuming many methods and involving a number of steps or operations.

2. Delineating. Focusing information requirements to be served by evaluation through such steps as specifying, defining, and explicating.

3. Obtaining. Making available through such processes as collecting, organizing, analyzing, and reporting, and through such formal means as statistics and measurement.

4. Providing. Fitting together into systems or subsystems that best serve the needs or purposes of the evaluation.

5. Useful. Appropriate to predetermined criteria evolved through the interaction of the evaluator and the client.

6. Information. Descriptive or interpretive data about entities (tangible or intangible) and their relationships.

7. Judging. Assigning weights in accordance with a specified value framework, criteria derived therefrom, and information which relates criteria to each entity being judged.

8. Decision Alternatives. A set of optional responses to a specified decision question.

Chart 2: EVALUATION DEFINED
Chart 3: THE RELATIONSHIP OF EVALUATION TO DECISION MAKING
<table>
<thead>
<tr>
<th>CONTEXT</th>
<th>INPUT</th>
<th>PROCESS</th>
<th>PRODUCT</th>
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<tbody>
<tr>
<td><strong>DELINEATE</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>OBTAIN</strong></td>
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<td><strong>PROVIDE</strong></td>
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Chart 4: THE FRAMEWORK FOR THE CIPP EVALUATION MODEL
<table>
<thead>
<tr>
<th>INTENDED DECISIONS</th>
<th>MEANS DECISIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUCTURING DECISIONS supported by INPUT EVALUATION</td>
<td>IMPLEMENTING DECISIONS supported by PROCESS EVALUATION</td>
</tr>
<tr>
<td>PLANNING DECISIONS supported by CONTEXT EVALUATION</td>
<td></td>
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<tr>
<td>RECYCLING DECISIONS supported by PRODUCT EVALUATION</td>
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Chart 5: EVALUATION AND DECISION TYPES
**Chart 6: Operational Definitions for the Four Types of Evaluation**

<table>
<thead>
<tr>
<th>(EVALUATION TYPES)</th>
<th>CONTEXT</th>
<th>INPUT</th>
<th>PROCESS</th>
<th>PRODUCT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DELINEATE</strong></td>
<td>System variables and values</td>
<td>Problem specifications Design criteria Constraints</td>
<td>Process decision points Milestones Barriers</td>
<td>Effectiveness criteria</td>
</tr>
<tr>
<td><strong>OBTAIN</strong></td>
<td>Performance and judgment data</td>
<td>Identification and analysis of strategies</td>
<td>Monitoring of procedures</td>
<td>Primary, secondary, and tertiary effects</td>
</tr>
<tr>
<td><strong>PROVIDE</strong></td>
<td>Profile of needs, opportunities and problems</td>
<td>Strategies by problems matrix</td>
<td>Progress reports Exception reports</td>
<td>Description and explanation of project attainments and impact</td>
</tr>
</tbody>
</table>

Chart 6: Operational Definitions for the Four Types of Evaluation
Chart 7: THE RELEVANCE OF THE CIPP MODEL TO DECISION MAKING AND ACCOUNTABILITY