DOCUMENT RESUME

ABSTRACT
        This review analyzes the trend in educational
decision making to replace hierarchical authority structures with
more rational models for decision making drawn from management
science. Emphasis is also placed on alternatives to a hierarchical
decision-making model, including governing models, union models, and
influence models. A 54-item bibliography of related literature is
included. (RA)

Models for Rational Decision Making

MODELS FOR RATIONAL DECISION MAKING

Analysis of Literature
and
Selected Bibliography

by

John S. Hall

ERIC and ERIC/CEA

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Besides processing documents and journal articles, the Clearing-house has another major function--information analysis and synthesis. The Clearinghouse prepares bibliographies, literature reviews, state-of-the-knowledge papers, and other interpretive research studies on topics in its educational area.

FOREWORD

In mid-June 1970 the Clearinghouse received an urgent request from Central ERIC in the U.S. Office of Education to prepare selected bibliographies and brief analyses of literature on eleven critical topics related to school organization and administration.

The bibliographies and analyses were required by USOE's National Center for Educational Research and Development (formerly the Bureau of Research) in planning its new program of directed research and development. School organization and administration is one of four areas of education chosen by the center to receive concentrated research and development assistance. The others are reading, early childhood, and vocational education.

Through a joint effort the Clearinghouse staff completed the bibliographies and analyses for shipment to USOE by July 2, the deadline date.

The analysis and bibliography combined here focus on (1) current or developing decision-making models and strategies in education and evidence of effectiveness, and (2) existing or possible alternative models of authority systems and decision processes in schools.

The literature cited in the bibliography and analyzed in the paper was drawn from a search of the two ERIC index catalogs, Research in Education and Current Index to Journals in Education, and from the following non-ERIC sources: Books in Print, Cumulative Book Index, Education Index, Public Affairs Information Service, Sociological Abstracts, Social Sciences and Humanities Index, and Book Review Digest. Although the urgency of the request precluded a full and comprehensive search and analysis of the literature, the reviews and bibliographies are intended to assess accurately some of the current developments and emerging trends on the topic.

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Philip K. Piele
Director

Analysis of Literature on

MODELS FOR RATIONAL DECISION MAKING

Theoretical discussions of models for decision making in education have

generally attempted to categorize models as either (1) rational or synoptic or

(2) behavioral (Lundin and Welty 1970 and Miklos 1969; both of these works

contain reviews of the literature and bibliographies related to models for

decision making in education). The rational models are described as formally

rigorous and as providing the basis for studies that focus on the organizational

structure of schools and on bureaucratic characteristics that relate to the

hierarchical exercise of authority (Miklos 1969). The most frequent criticism

of rational models is that they are not sufficiently isomorphic.

On the other hand, the literature has produced behavioral models that forgo

extreme formal rigor to acquire greater realism. These models are described

as providing the basis for anecdotal and case study varieties of the literature

(Lundin and Welty 1970).

The emphasis on bureaucratic characteristics and on the hierarchical

exercise of authority inherent in the rational approach has, until very recently,

provided an excellent analytical vehicle for investigation of decision making in

education, since decision making has largely been the prerogative of formally

recognized educational managers and policy makers (Anderson 1968). Most

school organizations of the immediate past are well described by the "hierar-

chical model" (Williams 1970). Under this model, lines of authority, rules and

regulations, and relationships between teachers, administrators, and board

members are clearly delineated. Decisions regarding the long-range formula-
tion of policy clearly rest with the board of education while immediate operational
decisions are made by staff administrators.

Highly compatible with the hierarchical model are recent developments in
the field of management science that should greatly expand the basis for rational
decision making (Cook 1968). Essentially, the newer techniques developed by
management science (e.g., PPBS, MIS) are designed to improve the decision
maker's information base. According to the rational model, greater access
to information should improve the administrator's decision-making capabilities.
Among the mushrooming volume of literature concerning the techniques of
management science, the following explicitly relate these techniques to decision-
making models: Alkin (1969), Foley (1968), Hartley (1968), and Pfeiffer (1968).
Development of management systems techniques has for the most part occurred
in organizations whose management has been clearly visible (Carter 1969).
Given the analogous hierarchical model of school organization, such techniques
should lead to greater efficiency and improved decision-making capabilities in
the schools.

The literature does, however, contain some forecasts of fundamental
changes in the decision-making structure and process. The remainder of this
review will be concerned with such forecasts, because, if valid, they would
require a reassessment of the applicability of the rational model for educational
decision making (Lundin and Welty 1970).

Williams (1970) contends that in many areas, the hierarchical model has
been modified to increase the professionals' (teachers') participation in the
decision-making process without altering the structure of that process. Whether
or not the modified hierarchical model is viewed as a form of co-option in light
of recent militant demands for participation by teacher organizations, the model

2

appears to have received at least the tacit support of recent research, which
has found that superior decisions are often produced by group interaction as
opposed to individual action (Bridges 1967 and Schmuck and Runkel 1968). For
a review of research on educational decision making by groups and individuals
that contains some contradictory findings, see Stollar and others (1969).

This model and accompanying research provide the rationale for recent
training projects that have sought to improve school decision making through
"human relations" techniques. Examples of such projects, along with some
evaluations of their effectiveness, may be found in Croft (1969), Schmuck (1969),
Schmuck and others (1969), and Schmuck and Runkel (1968). The unifying theme
of such literature--stressing improved communication skills, clarification of
roles, open interaction, etc.--is improvement of the decision-making process
within the traditional (legitimized) decision-making structure.

But significant room for debate is suggested by other literature that
regards recent demands for participation by teachers, students, and minority
groups as demands for basic change in the decision-making structure. Alter-
native models requiring such a change for assimilating teachers into the
decision-making process have been suggested by Blumberg (1969), Garbarino
(1968), Green (1969), and Williams (1970).

One suggested alternative, the "academic model," refers to the governing
system that has been used in many colleges and universities (Boyan 1966,
Thompson 1965, and Williams 1970). According to this model, teachers would
formally participate in decision making affecting the academic program, their
area of expertise.

Another alternative, the "union model" (Garbarino 1968 and Williams
1970) requires formalized negotiation procedures between teachers and
school management. This model, of course, represents a basic departure

3

from hierarchical patterns of educational administration, and is currently

being implemented in some areas with the teacher's demand for greater

decision-making prerogatives appearing as a basic item for negotiation

(the classic treatment of negotiation in education is contained in Lieberman and

Moskow 1966).

A unique alternative structure for decision making has been suggested by

Musgrove and Taylor (1969). This model allows parents to have a greater

voice in determining the ends of education, and gives teachers complete control

over selection of educational means. Under this model, each school district

would develop several kinds of schools, each having clearly stated objectives

that reflect a particular educational philosophy. Parents would then be free

to send their children to any school preferred.

The growing body of literature surrounding the demands of minority groups

for decentralization and community control of urban schools points to another

area of potential basic change in school decision-making structure. For a

comprehensive and up-to-date bibliography of this literature, see The Center

Forum (May 15, 1969). An important segment of this literature describes the

patterns of power and influence, and the effect of these interactions on decision

making in the New York City decentralization experiment (Gittell 1967a, Gittell

1967b, and Mayer 1969). For a thorough treatment of the theoretical implications

of the community control model, see chapter 1 of Gittell and Hevesi (1969).

Little empirical research has been done on the effects of community control

on decision making for the obvious reason that total decentralization of an urban

school district has yet to take place. However, some recent studies indicate that

increased community participation has been a factor in the introduction of

innovative programs and techniques into "relatively stagnant educational systems"

(Gittell and Hollander 1968), and that parent involvement in the schools during

4

decentralization experiments has had an enhancing effect on children's development and academic achievement (Lopate and others 1969).

Although the literature offers a number of alternative models for reallocating decision making in the schools, no single definitive model is available for incorporating each of these prescriptions into a viable decision-making structure for the future. An important segment of recent research provides a potential basis for such a model by viewing the educational system as a dynamic social system and by attempting to assess the power and influence relationships between formal and informal actors in the educational decision-making process. For a collection of abstracts of related documents, see ERIC Clearinghouse on Educational Administration (1969). Recent examples of such research may be found in Gittell and Hevesi (1969), Patterson (1968), and Wiley (1967).

However, this research has so far avoided an important question that must be answered prior to the construction of a more complex and realistic model of educational decision making. Namely, what would be the effect of proposed redistributions of decision-making authority on the end products of the educational system? Additional research is needed on the effects of shifts from the hierarchical model to other models reviewed. If such research shows improvement in educational programs, teacher performance, and pupil achievement, then the models warrant further support and refinement. However, if such research indicates opposite results, then alternative models must be found.

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