

INSTITUTIONAL MANAGEMENT IN EDUCATIONAL CYBERNETICS

DR. S. SWAMINATHA PILLAI

1.0 INTRODUCTION

An educational institution is an organization with a mission. Its *raison d'être* is to promote its students' learning, within a curriculum acceptable to its stakeholders. These ends are to be met efficiently and cost-effectively. In such an organization tensions will arise between :

- i) Professional autonomy and managerial control, individuality and hierarchy,
- 2) Structural authority and participative decision making,
- 3) The head's dual roles of 'leading professional' and 'chief executive',
- 4) The educational good of the many and the self-interest of the few,
- 5) High principle and pragmatic expediency -

These sometimes require a decision as to the lesser of two 'evils', eg. being cruel in order to be kind". (Everard and Morris, 1988). To resolve these tensions

a reference to values beyond the individuals in the organization is required. Such values act as bridges between the two. These fundamental issues propel an educational institution to pinnacle of success with its manager set in authority.

2.0 EDUCATIONAL MANAGEMENT :

An educational institution is an organic system intended to develop human resources, optimally, utilizing all available material resources resulting in a change of human ability towards social amelioration. Such a philosophical statement is really pragmatic as it emphasizes the four major components of institutional management viz. organization, manpower, materials and dynamism. Applying the well-known management stages of goalsetting, planning, organizing, controlling, evaluating and communicating to the above four-component description of institutional management, the following matrix emerges with the most important concepts, for the practice of successful institutional managers.

Institutional Management Components Stages of Management → ↓	Organic System	Manpower Resources	Material Resources	Change
Setting Aims & Objectives	Growth & Development (O.D.)	Career Development	Modernisation	Innovation
Planning	Time-log & Analysis	Motivation	Maintenance	Micro level & Macro level Planning
Organizing	Articulation of structures	Autonomy	Procurement (Rejection, addition modification)	Force Field Analysis
Controlling	Frictionless operation	Accountability	Auditing & Stock taking	Conflict Resolution
Setting organizational standard	Excellence	Quality & Morale	Cost effective & Cost beneficial	Institutional Ethos.
Directing the work of other staff	Participatory Management	Interpersonal Communication	Optimal Utilization	Diffusion of Innovation

Fig. 1. Institutional Management Matrix.

3.0 SYSTEM WITHIN A SYSTEM :

An institution when established properly becomes an organic system with its natural growth leading to organizational development. In this process, time is an important factor needing a time

analysis on the basis of the time log at the stage of planning. Over a period of time, it is imperative on the part of this institution to articulate well both as a system of systems and as a system within a large system, say educational system.

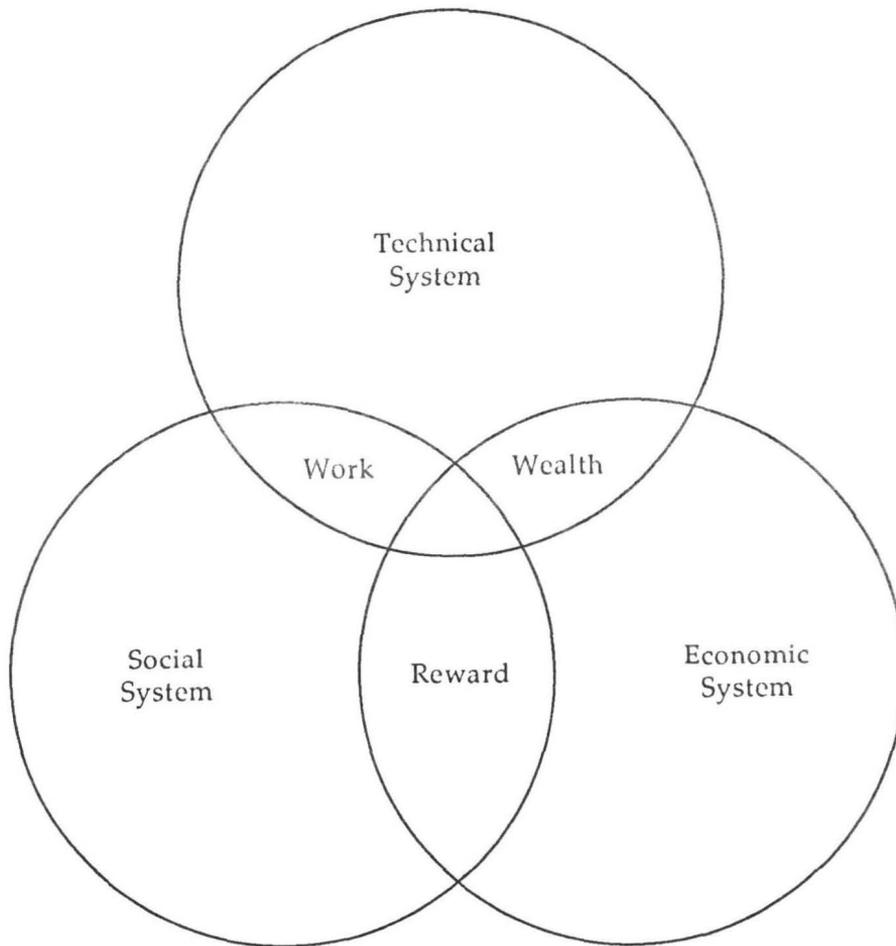


Fig. 2 Interlocking Systems
(Everard & Morris 1988)

There is a need to effect a control over the system for its frictionless operation lubricated by appropriate management

style. In this context the Blake grid (Blake and Mounton 1964) is worth looking into

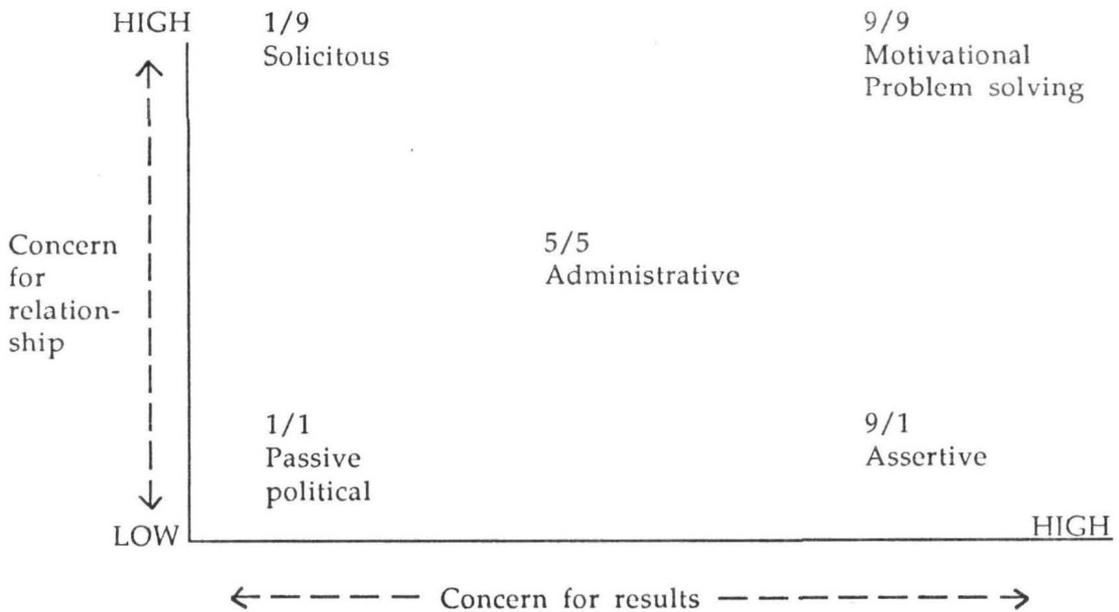


Fig. 3. The Blake grid's two dimensional model of management style.

It is possible to consider the five models of organizational functioning as illustrated by Birnbaum (1988) :

- the collegial institution, sharing power and values in a community of equals,
- the Bureaucratic institution, rationalizing structure and decision making,
- the Polytechnic institution, competing for power and resources,
- the Anarchical institution, finding meaning in a community of autonomous actors, and
- the Cybernetic institution, providing direction through self-regulation.

The last mentioned 1970s model is variously described as systems, Cybernetics and Socio-technical, with situational consideration as the dominant management style having an interlocking organizational structure emphasising on information flows and groups having their source of ideas in instrumentation control theory and nervous system (biotechnological source). From the classical model characterized by rationality, high job specialization, centralization, a command system, a tight hierarchy, strong vertical communication, fight control, rigid procedures and an autocratic approach, through the humanistic model characterized by respect for human values, job breadth, consultation, consensus, decentralization, loose subject organization,

flexible procedures, multidirectional communication, management by objectives and a participative approach, to the systems model based on control engineering on the one hand and human physiological systems on the other hand as developed by Beer in 1971 there have been a large set of considerations. This model brings out a number of factors relevant to modern institutions and has

three subsystems of policy-making, policy execution management and actual field operation in a hierarchy with the liaising and harmonizing fourth subsystem facilitating the operation and the outworld and futuristic fifth subsystem in articulation with the highest factor of policymaking. These five subsystems are in structural relationship as below :

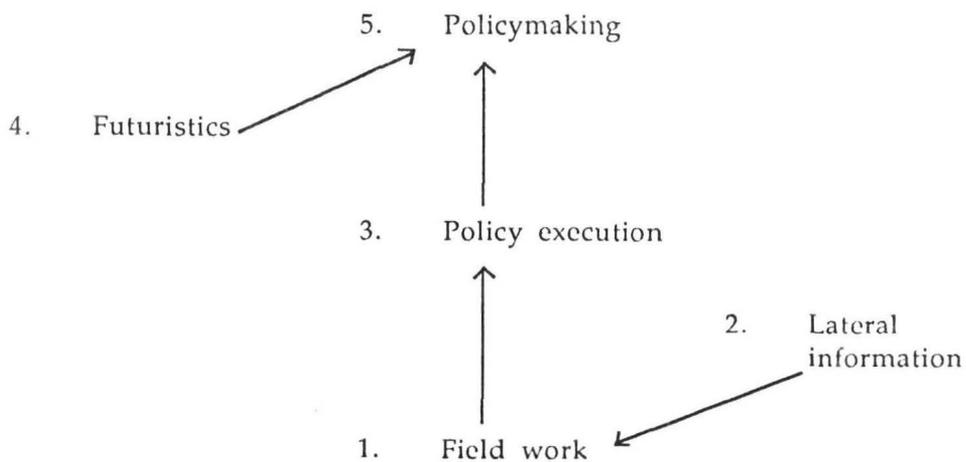


Fig. 4. Subsystems Hierarchy in Cybernetic Model.

The management style in operation has to set an organizational standard or institutional excellence on the lines of the search made by Peters and Waterman (1982). In order to achieve this the work of other staff needs to be directed in unison with the aims and objectives vis-a-vis the standards set for the institution to achieve.

4.0 MANPOWER MANAGEMENT :

The faculty and staff of the institute has to manage it in such a way that

the ultimate goal of developing manpower for social amelioration, as in technical manpower through technical institutions. Career development of both the staff and the students is the total aim of a professional institution. It is not only integral to institutional development but even to organizational health. Herberg's (1966) hygiene factors include organizational policies and administration, management, working conditions, interpersonal relationships, money, status and security; his 'motivators' are achievement, responsibility, recognition, advancement,

work itself and personal growth : Every individual involved in the institution, in one way or other, has to be a self-motivated achiever who can be described as follows :

- achievers like to set their own goals.
- achiever tends to avoid extremes of difficulty in selecting goals.
- achiever prefers tasks which provide him with more or less immediate feedback.

In the words of Anand Swarup (Singh & Sharma) (1989), "autonomy is to be looked upon as a managerial concept in the context of achieving the objectives for which the university (here, institutional) * system should be examined and a generally acceptable approach to it should be crystallised. The kind of norms of institutional accountability which need to be evolved is indicated by factors such as :

- credible and objective criteria for student selection,
- frequency of updating a syllabi and curricula,
- time schedule for class and course work,
- fair and just appraisal of student achievement,

- credibility in student grading,
- creating an environment of learning,
- encouraging a humanitarian reverence for and a scientific attitude to life
- adherence to reasonable norms of operational efficiency, professional encouragement, financial discipline, grievance redressal etc.

The importance of student and teacher quality and the institutional morale as organizational standard naturally points to interpersonal communication in such an institutional management system.

5. CHANGE MANAGEMENT :

The management of educational, nay, institutional change rests on setting its aims and objectives on innovation in education. Micro- and macro-level institutional planning needs to organize a force field analysis leading to the resolution of conflicts, natural to introduction of any change. Such an organized change is embedded in the institutional ethos contributing to the diffusion of its innovation at one or other levels of change. The map of a process for complex organizational change given below depicts the intricacies involved in such a change.

(* parenthetical intrapolation of this writer)

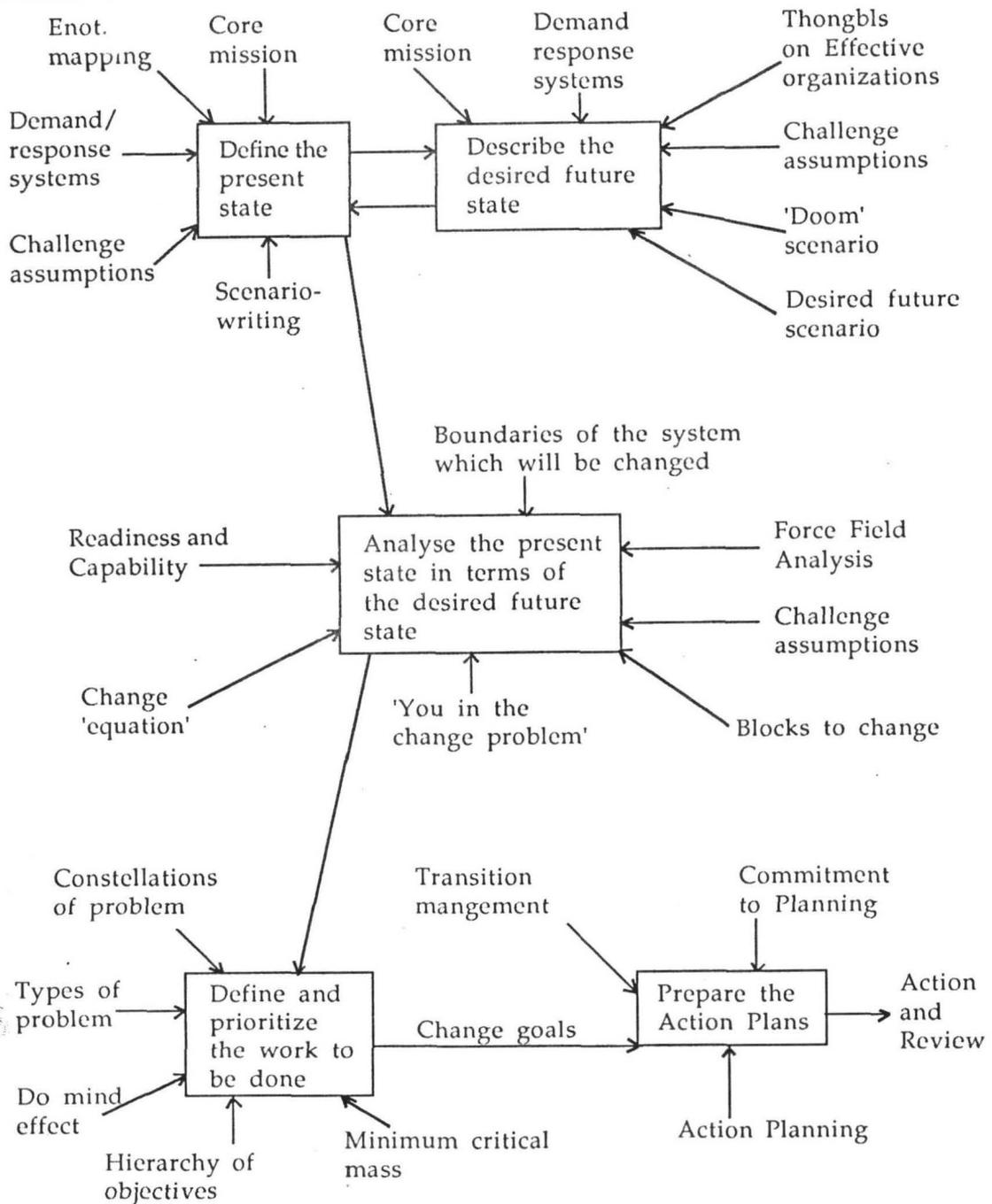


Fig. 5. Process of Organizational Change (Everard & Morris, 1988)

This map is applicable not only to the institution as a whole but even to a single instructional event confined to a class of short duration such as an hour.

6.0 INSTITUTIONAL MANAGEMENT IN EDUCATIONAL CYBERNETICS :

The organizational chart for institutional management is given at the end of this section by way of summary of what has been stated in the main sections. As an organic - controlling system the institution follows the principles of cybernetics as applied to education. But unlike in pure cybernetics where machine is involved, in educational cybernetics human beings are involved in their control of communication between themselves as well as with dynamics of in-

stitutional components perceived to be in organic systems growth and development. Therefore, it is necessary on the part of educational managers, viz., heads of institutions and institutional departments, teaching as well as supporting personnel including administrative groups, students, parents, employers (industry) and policy-makers (management as well as political functionaries including educational thinkers and theorists), to carefully adopt this cybernetic approach to institutional management providing direction as well as self-regulation vesting in them onerous responsibilities of developing manpower required for social (national) development emerging in futuristic trends. Unavoidable it is to don multiple roles on educators at several levels to function in this new network of inputs and outputs in the educational system.

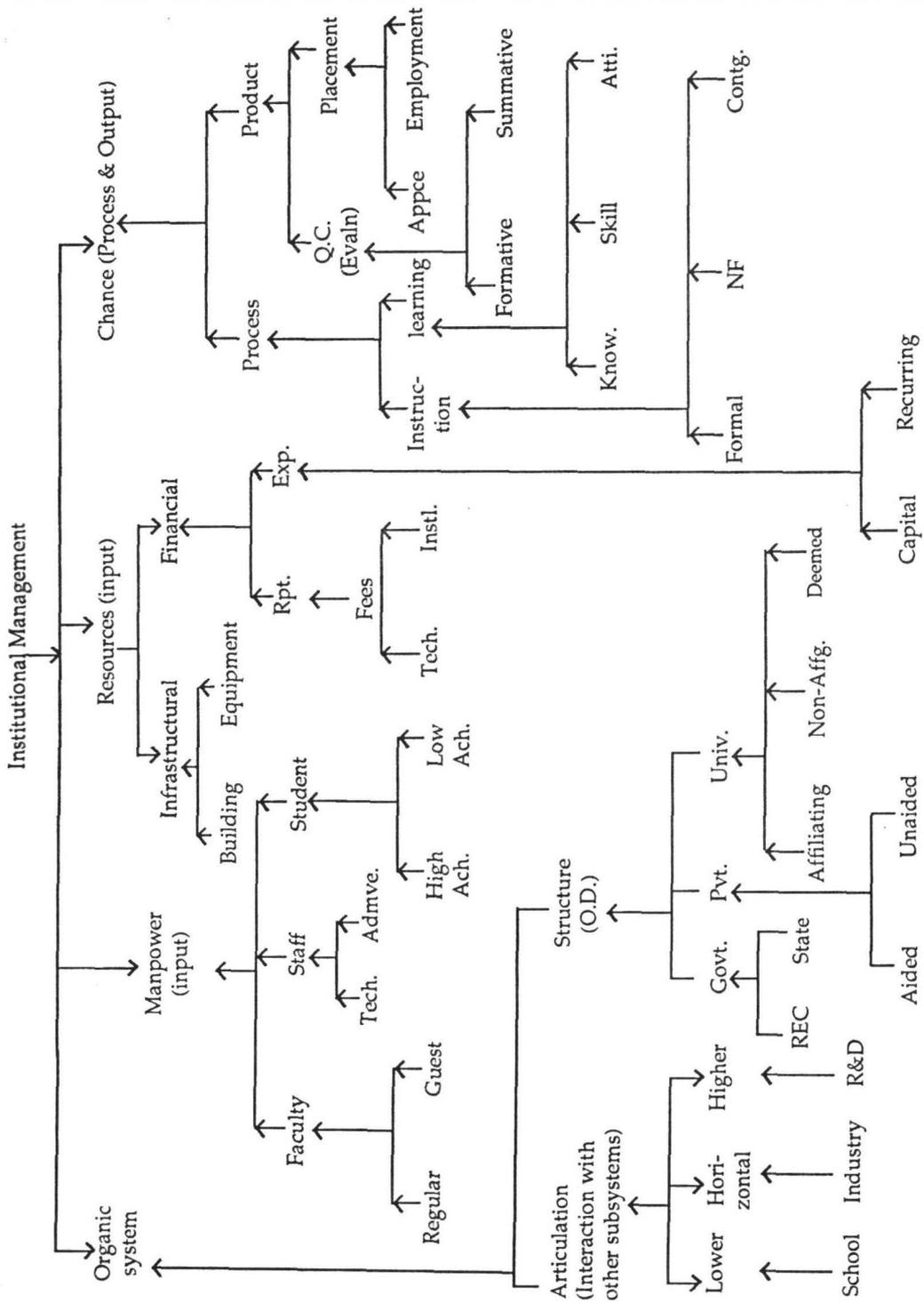


FIG. 6. INSTITUTIONAL CYBERNETICS

REFERENCES :

1. Birnbaum, Robert (1988) *How Colleges Work : The Cybernetics of Academic Organization and Leadership*, San Francisco : Jossey-Bass.
2. Bush, A. Glattor, R. Goodey, J & Riches, C (eds) (1980) *Approaches to School Management*, London : Harper & Row.
3. Everard, K. B. (1984) *Management in Comprehensive Schools What can be Learned from Industry ?* Centre for the Study of Comprehensive Schools, University of York. 2nd edn.
4. Everard, K. B., Morris Geoffrey (1988) *Effective Schools of Management*, London : Paul Chopman Publishing Ltd. Reprint.
5. Fullan, M. (1982) *The Meaning of Educational Change*, New York : Teachers College Press Ontario Institute for Studies in Education.
6. Galton, M. & Moon, R. (eds) (1983) *Changing Schools Changing Curriculum*, London : Harper & Row.
7. Gray, H. L. (ed) (1982) *The Management of Educational Institutions: Theory, Research and Consultancy*, Lewes : Falmer Press.
8. Her Majestics Inspectorate (1977) *Ten Good Schools*, DES, London : HMSO
9. Hughes, M. G. Carter, J & Fidler, B (1981) *Professional Development Provision for Senior Staff in Schools & Colleges*, University of Birmingham.
10. Kolb, D.A. (1984) *Experiential Learning : Experience as the Source of Learning and Development*, Englewood Cliffs, NJ : Prentice-Hall.
11. Maw, J. Fielding, M. Mitvhell P, White J, Young P, Ouston J & White P (1984) *Education Plc.*
London Institute of Education : Heinemann.
12. McLean A, Sims D, Mangharm I, Tuffields (1982) *OD in Transition : Evidence of an Evolving Profession*, Chichester : Wiley.
13. Paisey A. (1981) *Organization and Management in Schools*, Harlow : Longman.
14. Paisey A (1984) *School Management : A Case Approach*, London : Harper & Row.
15. Schmuck R, Reinkel P, Arends J, Arends R (1977) *The Second Handbook of Organizational Development in Schools*, Palo Alto : Mayfield.
16. Singh, Amrik, Sharma GD (eds) (1989) *Higher Education in India : The Institutional Context*. Delhi : Konark Publishers Pvt. Ltd.
17. Steward V (1983) *Change : The Challenge for Management*, London : McGraw-Hill.
18. Taylor J (1984) *Bridging the Gap : A County Council's Approach to Management Development of Head Teachers*, BACIE Journal, March/April, 67.

