With its beginnings in mid-1990s, applied behavioural science has come of age, its application having spread to almost every domain of human endeavour. However, scientific enquiry perhaps did not quite manage to keep pace with the mushrooming of theories as well as practitioners in the area in the sense that one is hard-pressed to locate work done with scientific rigour particularly in organisations, befitting the designation "science". The problems of lending this respectability to the application of behavioural science are many. The complexity of organisations, the multitude of variables impinging upon a situation, the difficulties in establishing any meaningful causal relationships between diverse variables and the problem of maintaining a researcher stance in an ongoing dynamic organisation, all add up to create a fairly turbulent environment—very far from resembling a researcher's "laboratory".

Despite these problems, attempts at employing behavioural process interventions in organisations got their impetus from the human-processual school of thought with its origins in the NTL and the techno-structural approaches seeded at the Tavistock Institute. The body of practice, experimentation, experience and knowledge gradually grew into the field of organisation development. In
order to further understanding of these processes and their impact, particularly, in Indian organisations, this research on "A study of the Effectiveness of Behavioural Process Interventions in an Organisation" was undertaken with the purpose of:
- Reviewing diagnostic data pertaining to organisational processes collected from Indian organisations.
- Drawing generalisation characterising Indian organisations.
- Exploring the processes of bringing about planned change in organisations by systematically presenting the flow of events.
- Presenting a picture of the behavioural process interventions in an organisation and assessing the effects generated as far as possible.

The conceptual model adopted was essentially the open systems model with the interventions belonging predominantly to the human-processual approaches to organisation development.

The methodology used was a combination of the survey method as well as the field study method during different phases of the project. The survey method was employed for the diagnostic and evaluation phases. Two questionnaires, one on Organisation Environment and the other on Motivational Climate, as well as personal interviews and group interviews were conducted to collect the data. The field study approach was adopted essentially for the phase of intervention. On the whole, this research was conducted from an action research perspective.
The study could broadly be divided into three parts:

1 Organisation diagnosis of a plurality of organisations. Four organisations representing a diversity in the nature of their business as well as belonging both to the private and public sectors were chosen for this purpose.

2 Interventions in a single organisation. An organisation involved in Coal mining in eastern India was selected for the study, where long-term OD effort was undertaken.

3 Before-after comparison of the impact of behavioural process intervention and change in a single organisation.

The significant findings and observations may be summarised as follows:

1 Organisational Diagnosis Data:

- The highest gap between the actual and the desired states was perceived to be on the dimension of personal development.
- The least gaps were perceived to be on the dimensions of Standard of performance, Innovation and Supervision.
- The organisations were by and large perceived as either "average" or "poor" with respect to the process dimensions of the organisation's environment.
- People desired their organisation to be either "good" or "excellent" on all the dimensions.
- People desired less emphasis to be given to Innovation, Supervision, and Standard of performance.
The motivational climate was perceived to be characterised by Dependency and Control motivation.
Approach-avoidance conflict pervaded the motivational climate.
Negative images held by people about each other were more than the positive images.

2 Interventions:

A series of interventions were carried out in a single organisation during the one-and-a-half year period. These included:
- Survey feedback to all the levels of Officers.
- Constitution of an OD Group and an OD Steering Committee to spearhead and monitor the OD efforts throughout the organisation.
- Constitution of task forces to delve into the areas of future directions, structural reorganisation, decision making, managing problems, recognition and rewards, and training.
- Phased programme for the development of internal facilitators.
- Creation of face optimisation groups to take a socio-technical view of the mining operations and to evolve integrated approaches for better utilisation of the mining face.
- Exercises on role efficacy and role negotiation for the Top
Management group.
- Programmes on achievement motivation to help promote the desired motivational climate.
- Team building for the senior management group.
- Programmes on personal growth and effectiveness directed at addressing the gap on this dimension perceived by the people.
- Supervisory development programmes to strengthen the managing ability of the managers of the underground coal mining operations.

3 Before-after comparison
- 11 of the 12 dimensions of the organisation environment showed an improvement.
- The dimension of Innovation, however, registered a decline.
- Decision making obtained the highest credit for improvement followed closely by Managing problems.
- The least improvement score was obtained by Communication.
- The maximum difference was perceived by Levels 1, 2 and 5 and the minimum by Level 3.
- The majority perceived a change in the positive direction on all the dimensions of the organisation environment except Innovation.
- There was a perceived change in the motivational climate from an Achievement, Control, Dependency climate to an Achievement, Expert influence, Extension motivation climate.
- The majority perceived a change in the positive direction in
the motivational climate.
- Interviews indicated changes perceived in the self, others as well as in the system.
- OD values, norms and practices seemed to have been fairly well internalised to indicate the usherance of the new ethos as a way of life.

B Implications for Practitioners

People spend a significant part of their lives working for organisations. Organisation and managers of organisations have a responsibility in creating, promoting and maintaining a climate of values, norms and practices where individual aspirations and potentialities can find expression and fulfilment. The all-pervading loss of sense of personal development and growth may be an indication of the extent of boredom, alienation and internal stagnation that people experience while working for organisations.

This study indicates, that through planned interventions, it is possible to arrest and reverse this trend. The sense of direction is epitomised in the words of a Managing Director who said, "I want to create an organisation where people will come and enjoy working, where at the end of the day they will feel that life today was worth living."

This study also indicates that people like their organisations to be excellent. They would perhaps like to identify themselves with
an organisation where they feel proud to belong. Organisations may well strive to create such a climate. That a culture of mutuality is of value to people is also indicated by this study. And that it is possible to create a climate of Achievement, Expert influence and Extension contributing to a culture of mutuality, instead of one of Control, Dependency and Affiliation, is also borne out by the findings of this study.

Most efforts in planned organisational change are initiated by the gate keeper of the organisation, i.e., the chief executive. In all the organisations studied as a part of this research, the consultants were invited by the Chief executive. In fact, many times, the values and stances that the chief executive espouses as regards work, work ethos and people, can significantly influence and shape the direction in which an organisation is likely to develop. In addition, the top management team sets the tone and provides the impetus for the change efforts. Hence a considerable amount of time, at least during the initial stages of a change effort, may need to be directed toward the top in order to gradually help them to own the change process. OD in this vital sense is different from training efforts aimed at any level in an organisation.

OD involves a systemic orientation, i.e., dealing with the total organisational system and not merely with discrete parts of the system. Hence any change effort aimed at changing the climate needs to encompass the totality of the organisation. This
necessarily involves a long-term involvement and commitment on the part of all those involved with the change effort. Short-term measures seem to bear little influence on the climate. This long-term involvement is also needed to help the organisation develop its internal capabilities to function as a self-renewing system.

C Limitations and Directions for Future Research

While OD tends to take a systemic and holistic view of organisation, one finds it difficult to deal with an organisation in a likewise manner. This research focuses predominantly on the human-processual aspects of interventions and their effectiveness. This leaves out the exploration of the inputs, the outputs and measurements of interventions and their effectiveness vis-a-vis these aspects. Future research, in order to be more comprehensive, may need to develop holistic measures to study attempts at change and their effectiveness.

No two organisations are identical. They differ in various aspects of their internal and external functioning. Even if two organisations produce similar kinds of products and services and cater to similar segments of the market, they are different because of the internal dynamics unique to every organisation. Hence comparisons of two organisations may have its pitfalls. In terms of experimental design, before-after comparisons in the same organisation, as done in this research, is one of the ways of addressing this problem. However, more rigorous experimental
designs, involving matched control groups for instance, are likely to yield more reliable results. This research suffers from this limitation as well as the relative lack of application of rigorous quantitative techniques of analyses. This limitation was attempted to be partially offset by the collection of qualitative data as far as was possible. The methodology used in this research attempted to measure dimensions of the organisation environment, motivational climate and the inter-level perceptions prevalent amongst the people. Since OD deals with changes in values and norms such as those of OCTAPACE culture, suitable questionnaires or methods of assessing organisational values may need to be used with the purpose of initiating an in-depth exploration of the culture of the organisation.

Finally, since OD is a long-range effort, the assessment of the effectiveness of interventions may need to be done periodically over a considerable length of time. This research suffers from this limitation in the sense that there is no provision of undertaking evaluations on a periodic on-going basis.

One hopes that researchers in the future may benefit from the observations and findings reported in this research.