A

Real

Organisational

Unit

Simulated

As

Life

Past, Present and Future

Background

Structure

Opportunities

Users

Background

AROUSAL
Origins

- Putting research findings into practice

- More relevant and effective management training/learning

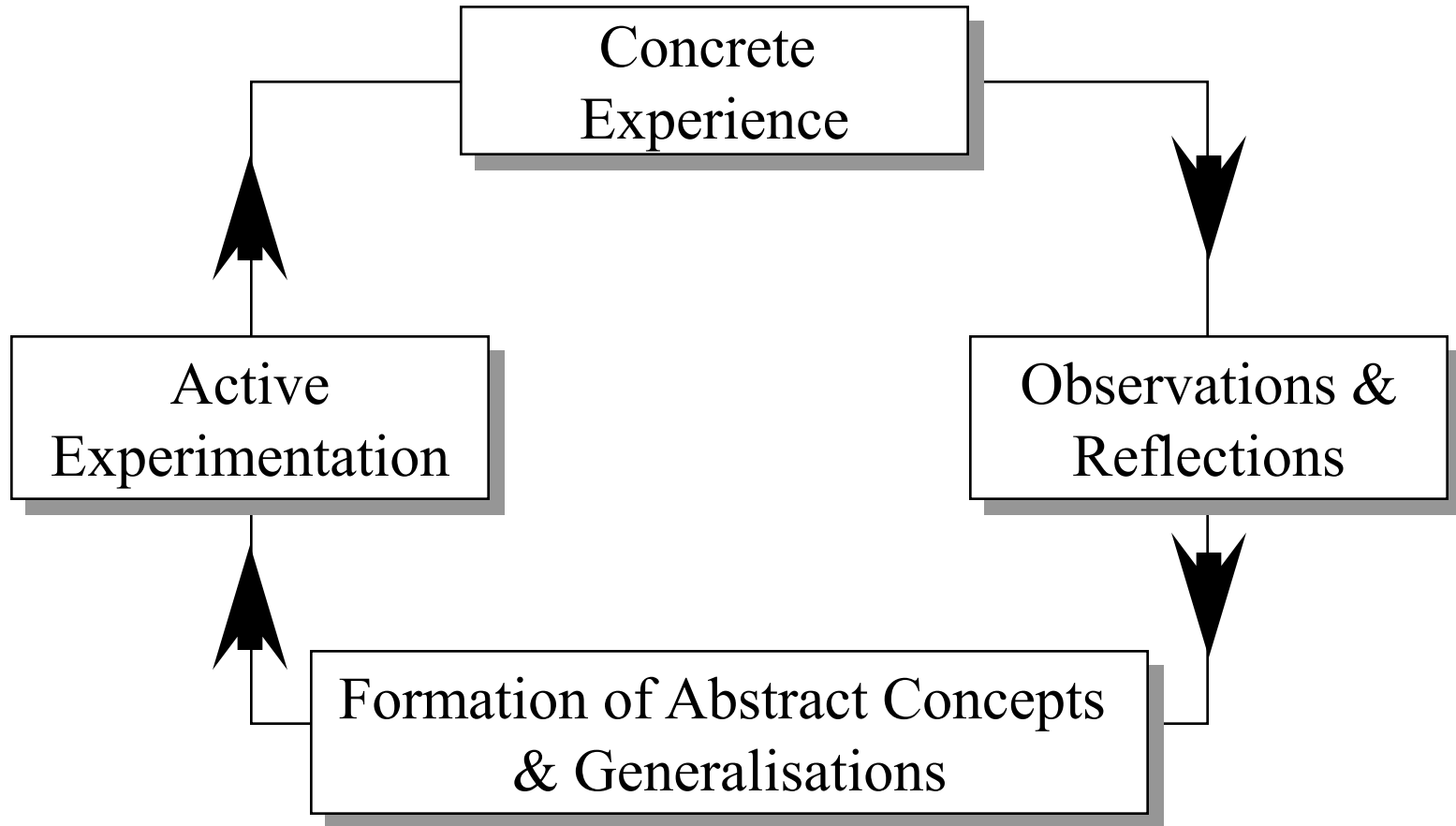- Concern for the future of many large organisations

Background : Training Method Effectiveness

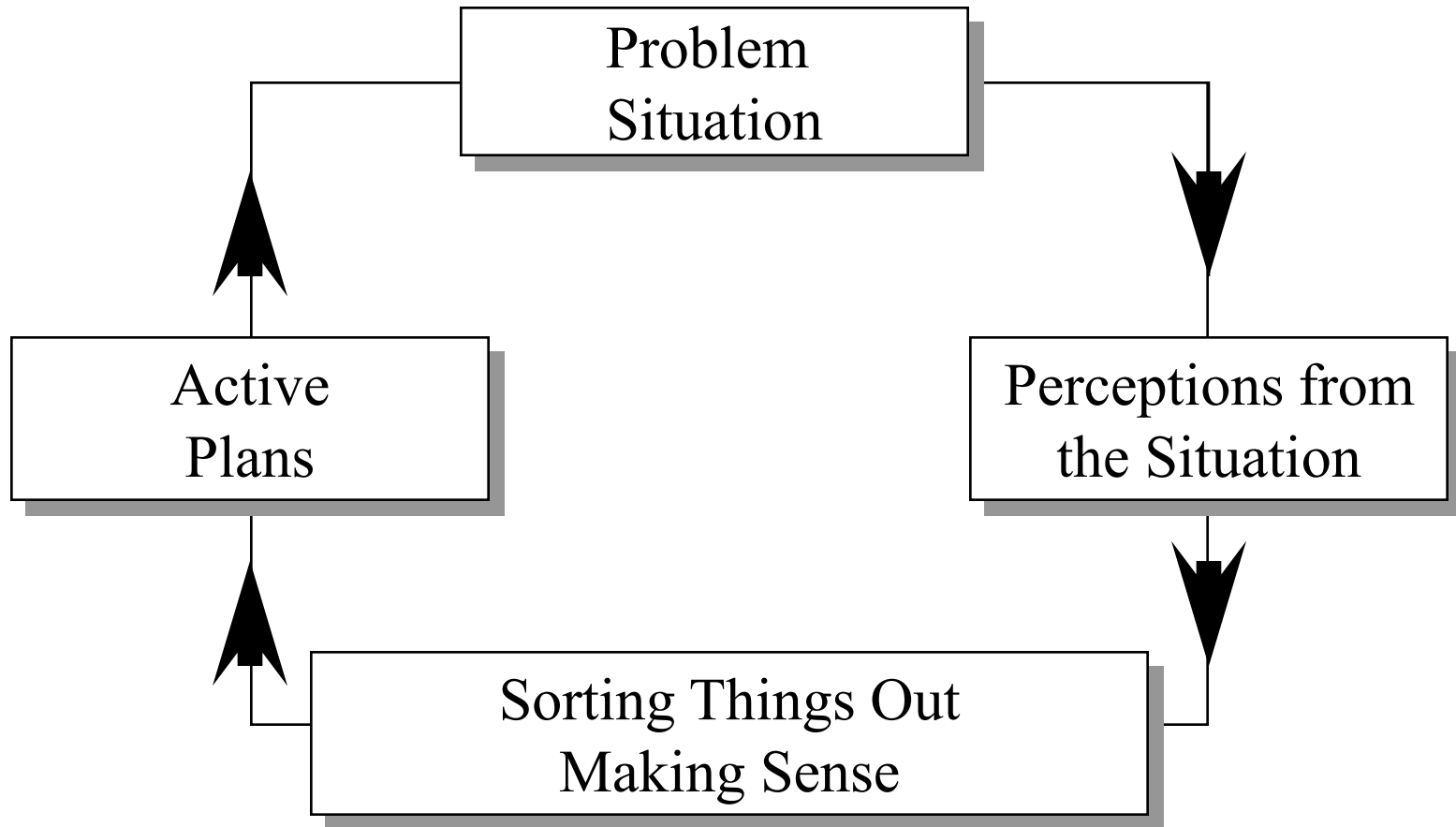| Training Objective	Most Effective Method	Case Studies	Business Games
Knowledge Acquisition	Conference Method	Strong	Doubtful
Changing Attitudes	Sensitivity Training	Possible	Strong
Problem-Solving Skills	Case Study	Strong	Possible
Interpersonal Skills	Role Playing	Possible	Strong
Participant Acceptance	Case Study	Strong	Strong
Knowledge Retention	Programmed Instruction	Possible	Doubtful

Background : Training Method Effectiveness

Principle	Case Studies	Business Games
Active Participation	High	High
Feedback	Possible	Possible
Reinforcement	Possible	Possible
Organisation of Material	High	Questionable
Practice	Possible	High
Ease of Transfer	Possible	Probable

Background : The Learning Cycle

Concrete Experience

Observations & Reflections

Formation of Abstract Concepts & Generalisations

Active Experimentation

Background : Problem-Solving Process

Background : Preferences of Managers on Courses

Managers Like

*   Involvement and participation

*   Linked to realism

*   Active learning rather than passive learning

*   Diagnosing business problems and proposing solutions

Managers Dislike

* Games and gimmicks

*   Lectures

*   Theory

Background : Reactions of Managers

Case Studies	Business Games
* Realistic, sophisticated, multi level	Unrealistic, naïve, single level
Static	* Dynamic
* Emphasis on analysis	Over emphasis on feedback
Restricted evaluation	* Extensive evaluation
Too distant, lack of "Feel" or ownership	Ownership of decisions rather than of problems

The Path to AROUSAL

Theory of Learning	Managers Likes and Dislikes	Experts on Training Methods and Learning Principles

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Case Studies and Business Games

↓

Simulators

Structure

Designing A Simulation

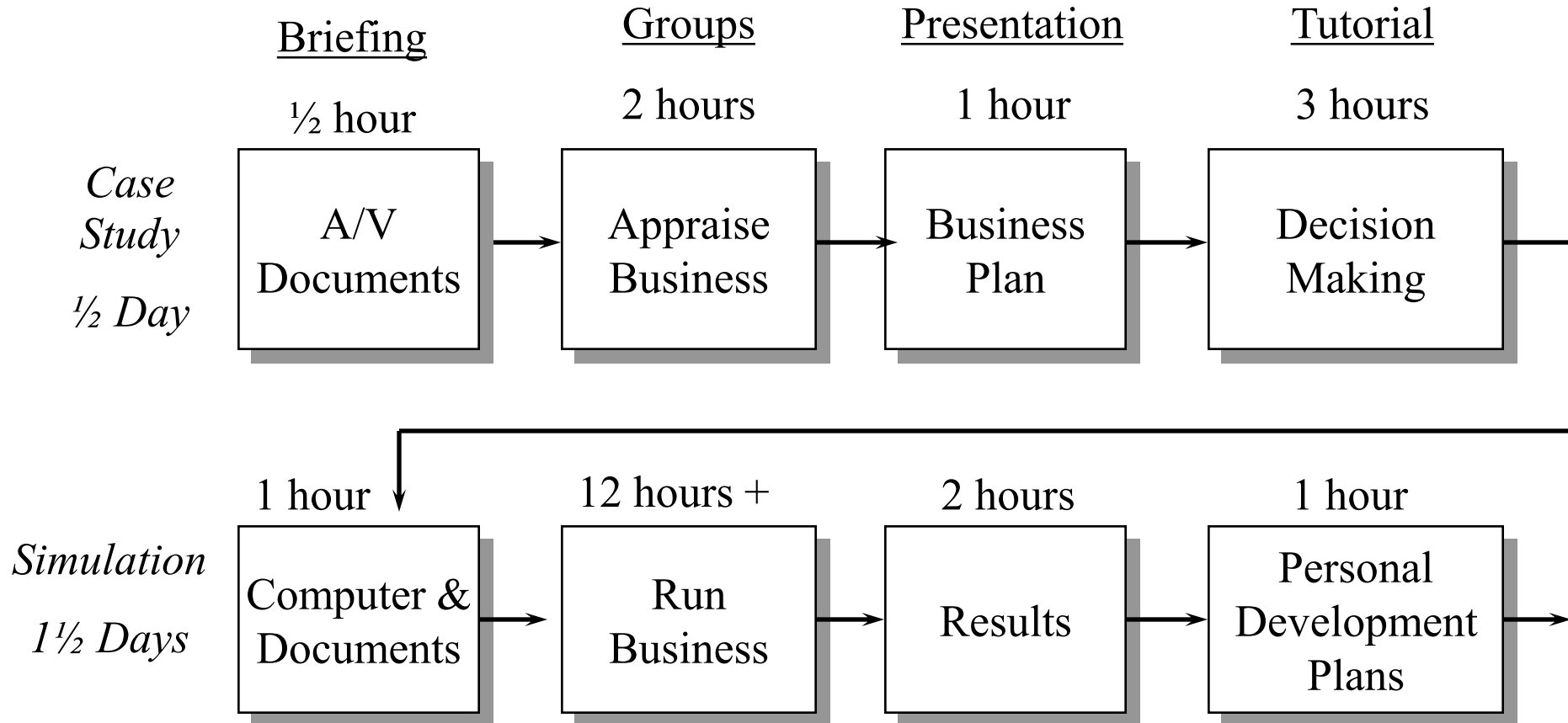| |
|---|
| **Ownership** |
| realistic context and presentation of context |
| realistic problems multi-level, multi-function embedded in context |
| **Dynamic Environment** |
| decision areas interact with each other and with environment |
| analysis and feedback balanced, outcomes can be compared within and outside "reality" of simulation |
| **Tailoring** |
| designing learning experience and associated simulations to meet a wide range of needs |

AROUSAL - Course Structure

	Briefing	Groups	Presentation	Tutorial
	½ hour	2 hours	1 hour	3 hours
Case Study ½ *Day*	A/V Documents →	Appraise Business →	Business Plan →	Decision Making

	1 hour	12 hours +	2 hours	1 hour
Simulation 1½ *Days*	Computer & Documents →	Run Business →	Results →	Personal Development Plans →

Phase	
1. **FAMILIARISATION** "concrete experience"	meeting the problems of a business unit visit, films, written material
2. **DISCUSSION** "observations and reflections"	group work along traditional case study lines
3. **PRESENTATION** "abstract concepts, generalisations"	reporting of findings and recommendations
4. **OPERATIONALISATION** "active experimentation"	application of recommendations to the running of the business unit; via a simulation model
5. **RUNNING THE BUSINESS** "full cycle"	simulating the business unit for, say, two years, with expert counselling as required.
6. **SWAPPING OF EXPERIENCES** "observations and reflections"	final "round up" of simulation analyses of decision making and managerial behaviour

Leadership

Forecasting

Organisation

Finance

Management of Change

Personnel Management

Strategic Planning

Estimating

AROUSAL
Areas for learning

Job Design

Marketing

Decision Making
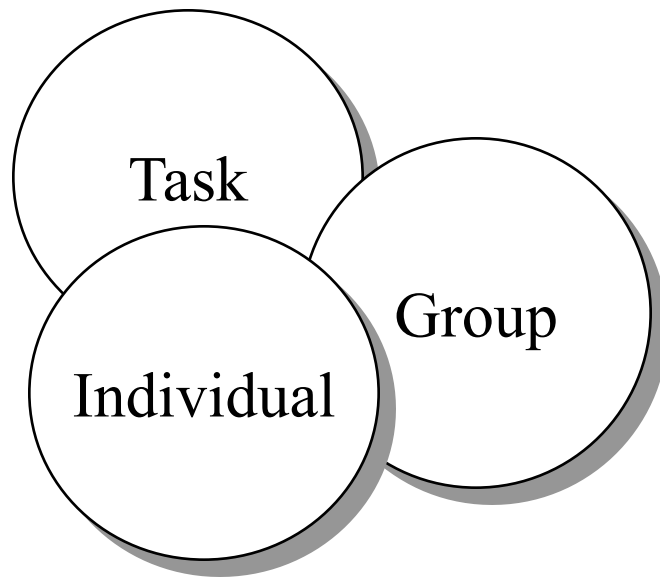
Appraisal

Manpower Planning

Production

Recruitment

Production

Presentations

Communication

AROUSAL

Task

Group

Individual

PROCESS

Interpersonal skills

Decision Making

Running Meetings

Presentations

Leadership

Team Building

Personal Awareness

Communications

Influencing

Negotiating

Assertiveness

Personal Development

Problem Solving

Opportunities

AROUSAL

USES

Management Development Courses

Induction Courses

Counselling

Coaching

Assessment

Team Building

Leadership

Managing Change

Corporate Appraisal

Typical Objectives
for construction organisations

- as a vehicle for management development

- developing a basic understanding of the ingredients of a business

- developing team work and interpersonal skills

- demonstrating particular approaches, philosophies

- providing context to other training activities

Typical Objectives
for Non-Construction Organisations

- **Rapid familiarisation with the construction / contracting business**

    * as a whole

    * ingredients of:-　　　　organisation

    　　　　　　　　　　　finance

    　　　　　　　　　　　personnel

    　　　　　　　　　　　contracting

    　　　　　　　　　　　technology/management interface

    * language

- **Understanding the types of decision made by contractors**

    * why, how and their consequences

- **Exploring**　　　　*　　　new approaches/practices/philosophies

    　　　　　　　　*　　　new ideas

    　　　　　　　　*　　　new perspectives

AROUSAL Meets Changing Needs

Issue	1982	1990	1996
Economic Situation	Recession after depression	Recession after boom	Recovery
Training	*Neglected*	*Accepted*	*Neglected*
Knowledge of Business Functions, Organisation, Strategy	Poor	Better	Poor
Managerial Skills	*Very Weak*	*Stronger*	*Weak*
Knowledge of Employer, Acceptance of Culture	Good	Poor	Poor

Some AROUSAL Models

Masters Building Company, Plymouth, UK

John Laing Construction, UK

Renzo Construction Company, Boston, USA

Pipers (h&v) Ltd, UK

Barset Engineering, Lincoln, UK

K.R. Construction, Istanbul, Turkey

Renzo in Russia

Red Stripe Contractors, WI

Users

Some Very Early Supporters

- CITB
- EITB
- John Laing
- Alfred McAlpine
- Tarmac
- Wiltshier
- Bovis
- MEPC
- Regional Health Authorities
- County & District Councils
- Construction Executive Program at Stanford University

- Arthur Andersen (UK, USA, Europe)
- Beacon Construction (USA)
- Associated General Contractors (USA)
- Jardine Pacific (Hong Kong)
- STFA (Turkey)
- Pernas Construction (Malaysia)
- Public Works Department (Brunei)
- LTA (South Africa)
- CITB (South Africa)
- INDEVO (Sweden)

The Appeal of AROUSAL

- Building
- Civil Engineering
- Building Services Engineering
- Mechanical and Electrical Engineering
- Property Development
- Banking
- Accounting

- Management Consulting
- Agriculture
- Commodity Trading
- Public Sector Management
- Health Service Management
- Shipping
- Higher Education
- Retailing

Europe and Eastern Europe

North America

Asia

Australasia

Africa

Beliefs

- Management effectiveness is best measured by quantifiable results

- An effective manager is able to forecast the outcomes of his actions and so take specific actions to keep control.

- The effective manager has to integrate a wide range of skills and operate across the full range of problem levels

Managers learn best by doing

"The greatest learning takes place when managers are able to handle new ideas against the backcloth of a familiar business setting"

AROUSAL
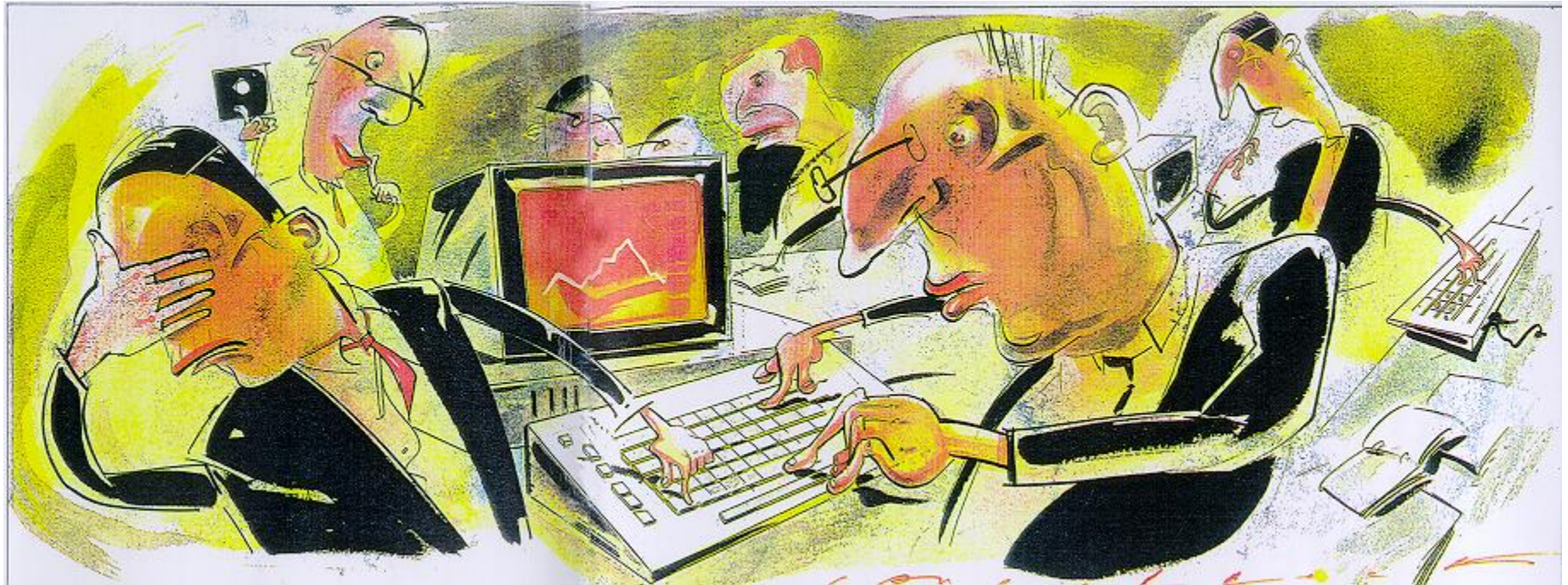
AROUSAL

&

The companies it works with

A Shared Mission?

- "Helping Managers and Professionals to Realise their Full Potential"

- "Helping Companies Change so as to become More Productive"

What would you do if you had a simulator of your organisation (or something close to your organisation)?

Develop Managers?

Change Attitudes & Behaviours?

Improve Knowledge & Skills?

Design of effective approaches

- **Learning** not **Products**
  - processes come before lessons
- **World of the Learner**
  - more important than world they should inhabit
- **Context and Content**
  - precede overt lessons
- **Sound Evidence Base**
  - not untested notions
- **Speculation**
  - not Specification

The objectives of the simulator

- Give a dramatically new learning experience

- Support the training of senior and middle managers

- Provide integration with conventional approaches

- Give an evaluation of how the trainee has coped with the various situations

The features of the simulation

- Operationally realistic scenarios
- Dynamic scenarios
- Interactivity with people and situations presented by them
- Editing of situations by the trainer

The learning experience

- Non threatening, but involving
- Realistic scenarios
- Group rather than individual
- Real time pressures
- Single situation or longitudinal experience

Potential benefits

- Holistic perspective of business
- Decentralisation of use, in-company learning
- Rapid introduction for those needing urgent industry orientation
- Links to other tools/software

What Else?