Chapter V

Training Techniques
Training techniques represent the medium of imparting skills and knowledge to trainees\textsuperscript{1}. The techniques used in management training today are multiple and take various forms. Some are simple, some are complex. Different methods are suitable for different training needs and situations (as shown in the table below), and preferences for methods also vary.

| 1. Decision-making skills | • In-basket  
|                          | • Business games  
|                          | • Case studies  
| 2. Interpersonal skills  | • Role play  
|                          | • Sensitivity training  
| 3. Job knowledge         | • On-the-job experience  
|                          | • Coaching  
|                          | • Understudy  
| 4. Organizational knowledge | • Job rotation  
|                          | • Multiple management  
| 5. General knowledge     | • Special courses  
|                          | • Special meetings  
|                          | • Specific readings  
| 6. Specific individual needs | • Special Projects  
|                          | • Committee assignments  

\textbf{Table: 5.1 Methods for developing managers}\textsuperscript{2}

\section*{5.1 Choice of method}

The success of any management development program largely depends on the selection of the method. The selection of an appropriate method is not an easy task. How do you select from the bewildering array of training methods available? Stick with the devil you know? Try a bit of everything on the assumption that something’s bound to work? Clive Shepherd, at Fastrack Consulting believes that the selection of training methods is more complex

\begin{footnotesize}

\end{footnotesize}
than we might think and requires a through and systematic approach and he has also developed a model for selection of training methods.\(^1\)

While making the choice of method, it would be advantageous to consider the following factors:\(^2\)

- Finance
- Time
- The Trainer(s)
- Accommodation and equipment
- What is to be learnt
- On- and off-the-job training

**Finance**

Training is not an area in which it is sensible to shop by price. It is equally wrong to assume the most expensive must be the best, or that cheap solutions will be adequate to meet our needs. The costs can be different for different methods of training aimed at the same objectives. The only cost of on-the-job coaching, for example, may be marginal managerial time. An off-the-job course covering the same area may involve fees, trainee travel and subsistence and the trainee’s salary while on the course. The choice will depend on individual circumstances; there is no short cut to a proper appraisal of whatever methods are on offer.

The complete costs of training may include:

- Tuition and examination fees
- Books, software, films and other material
- Training facility and equipment costs; room and equipment hire etc.
- Trainers’/consultants fees and expenses
- Trainees’ travel and subsistence expenses
- Trainees’ salary costs, or cost of lost productivity
- Training and personnel department and other administrative costs and overheads
- Management, mentoring or tutoring costs and overheads.

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\(^1\) Shepherd, C., A Process for Selecting Training Methods, Tactix-fastline, [http://www.fastrack-consulting.co.uk/tactix](http://www.fastrack-consulting.co.uk/tactix)

Time
Time may be important in several ways. Induction training of managers into a new post is always subject to time pressure; it is in everyone’s interests to make the ‘learning curve’ as steep as possible. There may be deadlines by which the training must be complete: the installation of new equipment, for example, the launch of a new product, or the opening of new premises.

There is often felt to be a limit on the amount of time for which trainees can be spared from a busy post. Even when the training is agreed to be essential, managers may be reluctant to take adequate time off from work to undergo it. If the benefits are less clear-cut or immediate (e.g. for behavioural training), this reluctance is often much stronger.

Training which is planned to take place over a lengthy period, on-the-job, for example, may be made difficult by unplanned alterations to the trainee’s situation; a job move, or attitude of a new boss.

Realism is essential; there is nothing to be gained by choosing training methods which demand time that cannot be spared.

The Trainers
Training may be provided by a range of people. Some of the methods can only be supplied by one kind of provider; for some there is a choice. Possible providers of training include:
- In-house training professionals
- External consultants
- Local colleges
- Professional bodies
- Superiors
- Colleagues

One of the key choices is often whether to appoint in-house training professionals or rely on outside resources. There has been a tendency in recent years to slim down training departments and outsource training. Many organizations use both, engaging outsiders for more specialized requirements such as management training.

A few training consultants seek to persuade clients that their methods contain unique ingredients, rather like patent medicines. However, like patent medicines, these ingredients are often given impressive names or acronyms, which mean little or nothing. In practice, the match between a
consultant's experience and our own environment is often the key factor in making a successful choice.

If we use internal trainers it is essential that they have themselves been trained properly for the use we make of them. There is a wide range of training available for coaches, mentors and course leaders. In the UK, the Training and Development Lead Body (TDLB) has laid down standards of competence for National Vocational Qualifications (NVQs) for trainers at various levels\(^1\). Back home, the Indian Society for Training and Development (ISTD) also provides various 'train the trainer' courses.

**Accommodation and equipment**

Virtually all training methods require specialized accommodation and equipment of some kind. Even the simplest course will require an appropriate training area with suitable furniture and basic equipment.

The environment must be suitable for the use we intend. The layout of the training room can have a big effect on the efficiency of training. If it is laid out as a classroom, for example, it will be hard to generate a participative atmosphere. If everyone cannot see and hear properly, our efforts will be wasted. The noise and temperature levels must be comfortable, and there must be protection from distractions. Our chosen methods may require rooms for group activities or individual study.

Most off-the-job training methods will require a minimum level of equipment: flipcharts, markers, overhead projector and screen. We may need 35mm slide projectors, video equipment, film projector. We may need demonstration machinery, models or mock-ups. For computer-based training (CBT), we may require a number of computers along with the requisite software, internet/intranet facilities. At the extreme end of the scale, our training methods may call for complex and costly equipment such as a simulator. Training frequently benefits from the support of a good library or information center.

**The trainee(s)**

The training must be tailored to the people who are to be trained. The aspects of trainees that we must consider in choosing training methods include:

• How many are there?
• What is their general level of education?
• What relevant qualifications do they already have?
• What experience have they had?
• Why have they been chosen for training?
• What jobs do they now do?
• Why should they want to be trained?
• Do they work together as a team?

We must be clear whether we are choosing training methods for an individual, a small or a large group, a continuing stream of trainees or occasional but repeated batches.

If our aim really is to lead a team, as opposed to a collection of individuals, we must train as a team. This will involve group activities. In many cases, the most appropriate training will be in-house training courses centered on the key activities of the team. This may be supplemented by training targeted specifically at developing the interpersonal elements of teamwork, possibly involving role-playing and sensitivity training of various kinds. One method used for this is adventure training.

What is to be learnt
Learning can cover three broad areas: knowledge, skills and attitudes. Often theoretical knowledge of new concepts or management techniques are imparted to managers, for which they are usually sent to short university courses or services of consultants are hired. Many organizations encourage their managers to do part-time courses. Chief Executive Officers are known to attend refresher courses conducted by business schools. Manu Chabria, CMD, Shaw Wallace, attended such a two-month programme at the Harvard Business School.

The emphasis in training is usually on the development of skills, like using a particular software package, or giving an effective presentation. The same is true of many ingredients in management training. It is not possible to develop skills without practice and feedback over an appropriate length of

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time, which may be weeks or months. Our choice of training methods must take this into account.

Attitude change is an important component in many kinds of training, such as customer care and team building. This may not require the long periods of time needed to develop skills, but does call for continuing follow-up, support and monitoring in the working environment.

The table below shows the relative effectiveness of training methods. The higher the ranking (1 is the highest rank), the more effective the technique is.

<table>
<thead>
<tr>
<th>Training method</th>
<th>Knowledge acquisition rank</th>
<th>Changing attitudes rank</th>
<th>Problem solving skills rank</th>
<th>Interpersonal skills rank</th>
<th>Participant acceptance rank</th>
<th>Knowledge retention rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Conference</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Lecture</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Business games</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Films</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Programmed instruction</td>
<td>1</td>
<td>7</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Role playing</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Sensitivity training</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Television lecture</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

**Table: 5.2** The relative effectiveness of training methods

*On- or off-the-job training*

Training methods are often split between on- and off-the-job, although several methods involve both. As the name suggests, on-the-job training is carried out while trainees are at their normal place of work and doing, as far as practicable, the work for which they are paid. Off-the-job training, on the

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other hand takes place in a special location, a classroom or training center, for example, and does not include productive work.

On-the-job training, conducted on the worksite and in the context of the actual job has several advantages. Learning by doing is the most natural form of training. It does not require it’s own facilities, equipment or trainer, and is thus often cheaper than off-the-job training. Since the training setting is also the performance setting, the transfer of training to the job is maximized. Trainee motivation remains high, as it is obvious to the trainees that what they are learning is relevant to the job.

However, on-the-job training has drawbacks. It requires one-to-one contact, which can demand much of the trainer’s time. It is harder to structure and control; it can feel rather untidy. There are often distractions to the trainee, and trainees may themselves prove a distraction to others. Neither the trainer nor the trainee is free from the daily chores and the pressure of their respective routine jobs. A senior has seldom the time and the patience to impart training to a trainee. The management process has become complex, but on-the-job training does not allow adequate facilities, environment and teaching expertise.

Conducting the training away from the workplace i.e., off-the-job training, minimizes distractions and allows trainees to devote their full attention to the material being taught. However, off-the-job training programs do not provide as much transfer of training to the actual job as do on-the-job programs. Effective training usually requires both on- and off-the-job elements. Where knowledge is important, it is best acquired in the classroom. Where skills must be developed, there must be practice on the job.

This chapter deals with various conventional on-and off-the-job methods (Part A) and Computer Based Methods (Part B).
Part A

Conventional Training Methods
Conventionally training techniques are categorized into on-the-job and off-the-job training methods.

5.A.1 On-the-job methods

Although most formal management development takes place off the job, the majority of learning occurs on the job. There have been several recent studies of managerial learning and skill development as a result of on-the-job experience. This research suggests that managers learn the most from assignments that are very difficult and challenging, such as building a start-up operation or turning around a failing operation; from assignments that represent a major change or increase in responsibility, such as moving from a staff to line position, moving to a different functional area, or moving to a job with greatly increased responsibilities for people, money or units; and from hardships, such as personal or business failure or dealing with very difficult individuals. Thus a complete programme for management development should include a job assignment and succession system that stretches people to their limits. In addition to major full time assignments, organizations use several other on-the-job management development techniques.

5.A.1.1 Job Rotation

The transferring of executives from one job assignment to another within the same organization in a systematic manner for suitable periods of time, for educational and learning purposes, is called job rotation. When a manager, judged to have a potential for higher ranks, is posted to a new job as a part of such a programme, it is not merely an orientation assignment. He has to assume full responsibility and perform all kinds of duties. The idea behind this is to give him the required diversified skills and a broader outlook, which are very important at the upper management levels. The duration of each assignment usually varies from a few months to a couple of years. Job rotation provides the inexperienced manager with a broad understanding of the organization- its purpose and its goals. Another effect of job rotation is to turn specialists into generalists. A person whose entire career is spent in one functional area becomes a specialist but may not develop a general, overall perspective on the organization. Upper level managers, in particular, need such a general outlook as they spend more and more of their time managing the total organization and less and less time managing a specialized functional area. Job rotation is a management technique that
provides this outlook. In many large organizations job rotation is used not only to train their people but also to evaluate their performance, capability and potentiality.

In the past, exceptionally talented individuals were developed for the highest positions through fast track job rotation programmes. For example, over a period of 32 years, Edgar S. Woolard Jr., moved through 20 jobs before he became the chief executive officer of Du Pont. In Japanese companies, job rotation forms the key tool of management development. Management trainees are picked up fresh from the universities after graduating, and the best part is that one need not be a management graduate to join as a management trainee. They are then rotated on various jobs and assignments, each lasting from a period of 3 to 5 years across various functional areas, and are subsequently moved to higher ranks. During each assignment, they, slowly and steadily pickup knowledge and skills required for areas of higher responsibilities. Towards the end of a manager's career he is brought back to his parent department from where he retires as a member of the top management.

Approaches to management development commonly emphasize job rotation through successively more responsible positions. Unfortunately recent organizational restructuring has eliminated many positions in the middle-management training ground. It may be challenging to groom managers for top-level positions in organizations in which middle level positions have been eliminated. As a result, there may be more management development efforts in the future that utilize rotating leaderships of taskforces or product developments.

However, one of the most commonly used approaches of management development is still the rotation of managers through successively more responsible positions or a combination of broadening assignments and vertical assignments. A departure from these traditional rotational programs involves cross-functional assignments. In spite of developmental slowdowns and a reduction in the middle management training ground, there are still means for developing high-talent managers. One approach is to use lateral moves. By making lateral assignments of both average performers and stars,

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there is less chance that the assignment will be perceived as dead end. Increase in the span of supervision and magnitude of responsibility without vertical movement also can promote development. Specific examples are PepsiCo’s use of lateral assignments for approximately 60 percent of its management-track assignments, And Hughes Aircraft’s use of lateral moves in which electrical engineers are assigned quality control. An obvious advantage of these lateral moves and slow-track approach is that the manager develops a broader understanding of the company and is on the job long enough to see more of the fruits of his efforts. Another example of an alternative development approach is Du Pont’s assignment of managers to overseas posts as a perquisite to top management positions. The use of overseas assignments for development is in sharp contrast to the past when managers having poorer prospects for higher positions were relegated to international assignments, as indicated by the following quotation: “At Du Pont, where nearly half the sales are foreign, overseas tours are becoming de rigueur for eventual moves up”. As early as the mid-1980s Motorola was providing strategically oriented training on various countries in its senior level executive development program.

5. A.1.2 Understudy

An understudy is a person who is under training to assume at a future time, the full responsibility of the position currently held by his superior. In this way it is ensured that a fully trained person is available to replace a manager during his long absence, or on his retirement, transfer or promotion.

An understudy may be picked up by a manager from amongst a large number of subordinates. Such an understudy learns the complexities of the problems, how to solve them, as his superior involves him in the discussion of daily operating problems as well as long-term problems. He also learns the process of decision-making. He is generally assigned a project, which is closely related to the work in his future job assignment. He is deputed to attend executive meetings as a representative of his superior, where he makes presentations and proposals. The essence is that the senior routes much of the departmental work through the junior; discusses problems with

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2 Ibid.
3 Ibid.
him and allows him to participate in the decision-making process as often as possible.

The understudy method has several advantages. It is practical and quick in training persons for greater responsibility for it lays emphasis on learning by doing. The learner’s interest and motivation are high and the superior is relieved of his heavy workload. The trainee manager is not overburdened with work and responsibility; at the same time he secures full participation in the running of the function and insight into the job content. The trainee is continuously able to obtain guidance of the senior. The work that passes through him opens up windows for him to appreciate different angles and view points related to the job. He receives an opportunity to see the job in totality.

5.A.1.3 Multiple Management Technique or Committee Assignments

It is a technique whereby juniors are assigned to Board or Committees, by the chief executive. They are asked to participate in the deliberations of these board and Committees. In these sessions, real-life actual problems are discussed, different views are debated and decisions are taken. The juniors get an opportunity to share in managerial decision making, to learn by watching others and to delve into specific organizational problems. When Committees are of ad hoc or temporary nature, they often take on a task force activity designed to delve into a particular problem, ascertain alternative solutions, and make a recommendation for implementing a solution. These temporary assignments can be both interesting and rewarding for the employees’ growth. On the other hand, appointment to permanent committees increases the employees’ exposure to other members of the organization, broadens understanding, and gives them an opportunity to grow and make recommendations under the scrutiny of committee members.

Multiple management has various advantages over the other methods. It gives committee members the opportunity to gain knowledge on various aspects of business. It helps identifying members who have executive talent. Members have the opportunity to participate in the group interaction and thereby gain the practical experience of group decision-making. It is a relatively inexpensive method of development. A considerable number of executives can be developed in a short span of time. Besides the committees
do make important contributions to the efficiency, productivity and a better administration in the organization.

5.A.1.4 Coaching

Coaching is the process of giving on-going guidance and feedback to a learner to bring about an improvement in key areas of performance. Coaching is at the heart of on-the-job training. Demonstration followed by practice and feedback is the most natural method of learning any skill, whether, for example, operating machinery, using a clerical procedure or negotiating with a supplier. All on-the-job training, by whatever method, must include an element of coaching. The responsibility for coaching lies with the immediate superior, providing day-to-day feedback, instruction and advice to the subordinate. In coaching, the superior plays the role of the guide and the instructor. The coach sets some mutually agreed upon goals and tells the trainee what he wants done, suggests how it may be done, follows up suggestions and corrects errors. He helps the trainee live up to the goals through periodic reviews of the trainee’s progress and by suggesting modifications in his behaviour where needed. The objective of coaching is not only to teach and guide a subordinate in the performance of his immediate assignments but also provide him with diversified work so that he may grow and progress.

Coaching involves the following steps to be taken by the coach:

- Establishing a safe atmosphere for the trainee
  - Learners must feel comfortable to take risks and make mistakes, as this is a part of the learning process.
- Motivating the trainee
- Building a rapport
  - The coach should develop a clear picture of what the learner is like, his feelings, motivation and attitudes.
  - The coach should adapt his approach in line with the personality, priorities, attitudes and approach of the learner.
- Identifying the trainees skill levels, his strengths and weaknesses and any specific needs of the individual
- Setting overall objectives for the trainee
- Setting performance standards and explaining to the trainee how success will be measured.
Planning and scheduling activities with the trainee, which involves setting challenging but manageable time targets
- Monitoring and assessing progress and performance of the trainee
- Giving specific and constructive feedback on his performance
- Giving on-going support
- Helping him to apply the learning, delivering outcomes that impact on business measures.

<table>
<thead>
<tr>
<th>Traditional Training</th>
<th>Coaching for Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taught by teacher</td>
<td>Self-directed learning supported by coach</td>
</tr>
<tr>
<td>Needs determined by teacher</td>
<td>Needs determined by learner with coach Learner-driven</td>
</tr>
<tr>
<td>Teacher-driven</td>
<td>Learning by doing</td>
</tr>
<tr>
<td>Learning by watching</td>
<td>Success judged by measured improvements</td>
</tr>
<tr>
<td>Success judged by completing course</td>
<td></td>
</tr>
</tbody>
</table>

Table: 5.A.1 Difference Between Traditional Training and Coaching

To be effective, coaching demands that the superior should render assistance when the subordinates seeks or needs it. The superior should have the ability to communicate and to stimulate, and should have the patience to help his subordinates. He should also set aside time for scheduling session. He should avoid being too dominant in the performance process, so that the trainee can experience things for himself and does not become completely dependant on the coach for decisions.

5.A.1.5 Executive Coaching

An innovation that has come into practice recently is called executive coaching, which is an offshoot of on-the-job coaching. The first person to coin the term “executive coaching” may have been Dr. Dick Borough, a practitioner in California, who used it to describe his leadership development activities in 1985\(^1\). By 1998 it had become mainstream enough that it merited attention in Forbes magazine; in a rather derisive article by Dyan Machan entitled “Sigmund Freud Meets Henry Ford”, executive coaching

was described as a “controversial” hybrid of management consulting and psychotherapy. Widespread adoption of executive coaching by traditional human resource consulting firms began around 1990, although there were scattered offerings before that. According to a survey of coaching practices at leading American companies, those coached in business maybe anyone from a middle manager up to the CEO, although more commonly that person will be a leading contender for the CEO’s job. Interestingly Coca-Cola and Polaroid have made coaching central to their executive development process. Although executive coaching is most often used to complement executive training programs, some firms are so encouraged by its effectiveness that they are substituting it for all executive training. One California utility company believes executive coaching is more effective and cost-efficient than traditional training programs. As a result, it has replaced all managerial training with executive coaching. 

Executive coaching consists of a series of one-to-one interactions between a coach, and an executive that attempt to improve the latter’s performance on the job. The coach is almost always a professional from outside the organization who is compensated for helping to improve the executive’s performance. Several activities are involved in the exercise: assessment, face-to-face meetings, and telephone conversations, exchanging e-mail. Coaches serve as trainers, facilitators, motivators, moderators, sounding boards, and confidantes. Though not a substitute for psychological counseling, coaching often assists practicing executives in addressing managerial weaknesses and can empower them to higher levels of mental health and functioning.

Although executive coaching is a relatively new field, one major transformation has already occurred in the industry. The practice was originally conceived as a means of saving a derailed manager, comparable to a physical therapist who specializes in stroke therapy and is brought in after a crisis to help rehabilitate the victim. Now coaches tend to intervene much earlier, like the personal trainers hired by athletes to improve their performance. A world record sprinter might employ a trainer to help improve performance, even though the sprinter is clearly a superior

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performer. Thus, executive coaching is now both remedial for average executives and performance enhancing for high-potential managers.

There are three broad categories of executives that participate in coaching. The first is the executive with adequate skills who shows promise but has one or two areas that are preventing advancement, usually interaction issues. These “derailed” executives might have an abrasive management style, an inability to delegate, or poor assertiveness skills. In many cases they were promoted from technical position into management and are having difficulty adjusting to the new demands. A typical coaching intervention with a derailed executive would be a brief assessment followed by a series of sessions in which the executive would devise a plan, take specific actions back on the job, report back to the coach, and receive feedback. This cycle is repeated until the executive’s problem is solved. Frequent sessions enable the executive to practice what was learned and get immediate feedback for improvement.

The second category is the promising executive who desires improved leadership skills. There may be no specific deficiencies that need attention, but the executive may need helping in planning and implementing a course of action that will help in achieving desired goals. Typical issues might include personal visioning exercises, how to increase influence within an organization, or how to build trust with subordinates. A thorough assessment of the executive’s strengths and weaknesses would be included. The coach and recipient would then have a series of interactions over a period of several months.

The third category of coaching recipients are professional/entrepreneurs. People in professional practices, such as medicine or architecture, and entrepreneurs who are starting or expanding a business, frequently find that daily managerial demands limit their ability to develop long-range strategies or work on personal development. Coaches offer a neutral and non-judgmental atmosphere in which to discuss the future of the business and how the professional or entrepreneur can achieve personal and professional goals. These interventions tend to be open ended, and the frequency of contact varies greatly.

Executive coaches serve a wide variety of roles, from improving or enhancing current skills to preparing an executive for a future job (as seen in the table below). As a result, they address diverse issues that range from
building trust in work relationships to achieving more balance in one’s personal and professional life and gaining improved communications.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Modifying interaction style</td>
</tr>
<tr>
<td>2</td>
<td>Building trust in relationships</td>
</tr>
<tr>
<td>3</td>
<td>Dealing better with change</td>
</tr>
<tr>
<td>4</td>
<td>Improving listening skills</td>
</tr>
<tr>
<td>5</td>
<td>Improving public speaking</td>
</tr>
<tr>
<td>6</td>
<td>Balancing work and personal life</td>
</tr>
<tr>
<td>7</td>
<td>Clarifying and pursuing goals</td>
</tr>
<tr>
<td>8</td>
<td>Strengthening delegation skills</td>
</tr>
<tr>
<td>9</td>
<td>Improving technical skills</td>
</tr>
<tr>
<td>10</td>
<td>Handling stress better</td>
</tr>
<tr>
<td>11</td>
<td>Improving writing skills</td>
</tr>
<tr>
<td>12</td>
<td>Maintaining a long-term focus</td>
</tr>
</tbody>
</table>

**Table: 5.A.2 Focus on Skills For Executive Coaching**

Coaching is increasingly viewed as a useful and effective way to improve individual and organizational learning, thereby strengthening overall effectiveness.

### 5.A.2 Mentoring

Mentoring is not only a valuable modern business tool but is also an age-old tradition, valued by countless generations.

**Origin**

The term ‘mentor’ has its origin in Greek mythology. Before setting out on an epic voyage, Odysseus entrusted the care and direction of his son Telemachus to his old and trusted friend- Mentor. Mentor’s name has passed

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into our modern day language as a shorthand term for a wise trusted counselor and teacher. So a situation wherein an older, influential person, takes a younger promising person "under his wing", so to speak, for the purpose of advancing the younger person’s career, is known as mentoring. The older person is then a mentor to the younger one, and the younger person is known as the protégé, just as Telemachus was Mentor’s protégé.

In the Indian context, it is also said that mentoring has its origin in the “guru-shishya parampara”, where a child at a very young age is entrusted to a guru’s care for education or to learn an art form and also the ‘ways of the world’. The guru not only helps him in learning but also helps in establishing and advancing his career.

Mentoring, in a unique way, found expression in Uganda years ago. Even today, the Ugandan farmers pair a young ox – the beginner – with an older ox and the two oxen tied together with a special harness called a training yoke. The training yoke is configured in such a way that the older ox pulls most of the burden! And thus the younger ox learns from ‘walking alongside’ and builds on the synergy with optimum effort.

The Concept
According to Bennetts (1994), “A mentor is that person who achieves a one to one developmental relationship with a learner; and one whom the learner identifies as having enabled personal growth to take place.”

The term “mentor” as it is currently used in management literature refers to a more senior person who takes an interest in sponsorship of the career of a more junior person. The senior person need not be the immediate superior of the junior person, but one whom the younger person admires, looks forward to and with whom he develops a trusting relationship. Mentors provide both vocational career support to their protégés as well as psychosocial support in times of difficulty. Vocational support involves sponsorship and coaching on specific elements of the job or career. Psychosocial support includes counseling and friendship. Interestingly, today, most

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2 http://www.mentorsforum.co.uk/eOL1/tools/facts_Sheet1.htm
progressive organizations look upon mentoring as a management tool to encourage development of individuals and build *esprit-de-corps*.

Most mentor-protégé relationships occur spontaneously, when a more senior person voluntarily decides to become involved in developing the career of a promising junior. However some organizations have a formal program that assigns mentors to new managers. Mentors usually assist their protégés in developing important job skills and many of the subtle skills needed to advance to the highest-level positions. Apart from providing viable role models, candid feedback, instruction, insights into the company’s politics, they also serve as advocates and sponsors for the protégés for advancement to higher positions in the organization, assuring that the juniors are not overlooked when development opportunities or promotions become available.

Mentors perform roles in four key categories:

<table>
<thead>
<tr>
<th>COACHING</th>
<th>FACILITATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mentor, as a coach, guides and actively encourages the person being</td>
<td>The mentor, as a facilitator, takes action that indirectly smooths the</td>
</tr>
<tr>
<td>mentored in the development of relevant skills and attitudes for the</td>
<td>way for something else to happen. It can be as simple as passing on a</td>
</tr>
<tr>
<td>future. The focus of the coaching role is on the ability to see beyond</td>
<td>phone number or introducing the person being mentored to someone, but it</td>
</tr>
<tr>
<td>what is, to identify what can be, and then to work with the person</td>
<td>sets in motion other interactions enabling the person being mentored to</td>
</tr>
<tr>
<td>being mentored towards achieving that potential.</td>
<td>pursue his goals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COUNSELLING</th>
<th>NETWORKING</th>
</tr>
</thead>
<tbody>
<tr>
<td>The mentor, as a counselor, acts as a sounding board when the person</td>
<td>The mentor, as a networker, alerts the person being mentored to the use</td>
</tr>
<tr>
<td>being mentored is solving a problem or making a difficult decision.</td>
<td>of informal contacts outside the official structure of the organization,</td>
</tr>
<tr>
<td>As a confidant, the mentor helps the person being mentored to clarify</td>
<td>and how these can add value to work by providing alternative means of</td>
</tr>
<tr>
<td>the issues involved and to see the larger picture.</td>
<td>getting things done.</td>
</tr>
</tbody>
</table>

Table: 5.A.3 The Key Roles of Mentoring

Stages in Mentoring
Kram (1983) documented four phases in mentoring relationships: \textit{Initiation, Cultivation, Separation, and Redefinition}. During \textit{initiation}, the mentor and the protégé select one another, and initial interactions involve learning the other’s style and working habits. During the \textit{cultivation} phase, career and psycho-social mentoring functions peak and learning accrues to both mentor and protégé. Protégés gain valuable knowledge from the mentor, and mentors gain loyalty and support of the junior person, as well as a sense of well-being from being able to pass on knowledge to the next generation of managers. During the \textit{separation} phase, the relationship ends, often due to geographical separation. Finally, the \textit{redefinition} phase is marked by the mentor and protégé relationship becoming more like a peer friendship.

Benefits of Mentoring
For the person being mentored:
\begin{itemize}
\item Easier induction 
\item Improved self-confidence 
\item Learning to cope with the formal and informal structure (insights to the codes and culture) 
\item Career advice and advancement 
\item Help with developing managerial skills 
\item Having a mentor may increase the protégé’s power and influence in an organization. 
\item Mentoring has also been related to positive career outcomes for protégés, such as salary, promotions and career satisfaction by researchers. 
\item Managers who have mentors “learn the ropes” faster and more effectively than those without mentors.
\end{itemize}

For the mentor:
\begin{itemize}
\item Improved job satisfaction and self-esteem. 
\item Increased peer recognition 
\item New perspectives 
\item The opportunity to influence 
\item An increase in their own ability 
\item The chance to improve communication
\end{itemize}

\footnote{Scandura, T.A., “Dysfunctional mentoring relationships and outcomes”, \textit{Journal of Management}, May-June 1998.}
For the organization:
- Easier, more efficient induction of managers
- Improved motivation of the person being mentored and mentor
- A sound corporate culture
- Improved communications
- Savings in training and development costs
- Rapid development of high-flyers.
- Researchers have found a negative relationship between mentoring and intentions to quit, suggesting that reduced turnover might be another organizational benefit of mentoring.

Given these potential benefits, mentoring is considered a component of an effective training and development process in many organizations.

5.A.2.1 Action Learning

Also called Project-based learning, Action Learning is a comparative latecomer to the lexicon of management development techniques, gaining widespread acceptance only in the 1970s. Pioneered by Professor Reg Revans and subsequently developed worldwide, it provides a well-tried method of accelerating learning, which enables people to handle difficult situations more effectively.

*Action Learning Defined*
Revans defined Action Learning as “learning from and with peers while tackling real problems”. McGill and Beaty (1995) defined it as “a continuous process of learning and reflection, supported by colleagues, with the intention of getting things done”. Similarly Ingles (1994) defined it as “a process which brings people together to find solutions to problems, and in doing so, develop both the individual and the organization.” So Action Learning can be described as a process in which a group of people come together to work on a project or a problem through helping each other and learning from their experience.

*The Underlying Philosophy*
Although it is a fresh and stimulating way of learning by doing, the theory behind Action learning is not novel. A basic assumption is that we can best find a means of overcoming significant new problems and challenges by working with a group of people who have similar motivation to find
solutions. The outcome of the group endeavor is not merely the answer to the problems, but invaluable learning and development for those who have been involved. As Professor Revans expresses it, “Action Learning is cradled in the task itself.” Thus, there is no problem of transfer of learning.

An important principle is that ‘comrades in adversity can help each other’, they do so by asking questions from many differing perspectives. Discussing problems with other people who have similar problems and want to help is a very powerful way of finding solutions and of improving performance; the process involves learning for all, including those who are asking questions and trying to assist others.

According to professor Revans, Learning= P + Q. P stands for Programmed Knowledge; this already exists and is to be found in textbooks, lectures, etc. Q stands for Questioning Insights; the ability to ask the salient questions which will help to elucidate the problem and find a solution. P is important; there would be no merit in devoting a lifetime to re-inventing the wheel. It is, however, concerned with events which have already occurred. If the environment were completely static and problems therefore similar in all respects to those which had gone before, P would be able to provide solutions. In a context of rapid change, whilst knowledge of past solutions may be helpful, and it may be possible to build on them, historic information may be dysfunctional in channeling the mind in certain directions, thus creating entirely the wrong mental set. To solve problems to which no one knows the answers, the ability to ask penetrating questions is essential.

An important first step in Action Learning is to clarify and identify the relevant areas of ignorance, but one needs not only to ask the questions, but also find the answers to them. It therefore requires the skills of ‘finding out’. This can involve searching the realms of P, but also obtaining information from colleagues, subordinates, superiors and relevant sources outside the organization, as well as analyzing what the situation means. The figure below shows Action Learning in practice.

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Knowledge of functions and disciplines, e.g. finance, marketing, human resources

Skills
- Interpersonal
- Research methods
- Analytical
- Literary

Questions and interpretation

Action

Colleagues, peers
Organization specific
Environmental information

**Figure: 5.A.1 Action learning in practice**

*Action learning at work*

Professor Revan’s method was to arrange groups of people in what he termed as ‘sets’ to discuss problems. There are four possible designs.²

<table>
<thead>
<tr>
<th>Familiar problem or project in an area the learner knows well</th>
<th>A</th>
<th>Familiar problem or project applied to a new situation</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfamiliar problem or project in a familiar work situation</td>
<td>C</td>
<td>Unfamiliar problem or project in unfamiliar situation</td>
<td>D</td>
</tr>
</tbody>
</table>

**Table: 5.A.4 The four problem sets**

It is suggested that option A is suitable for plant supervisors and foremen or junior managers. It is necessarily part-time, as all will be continuing with their work. They meet on equal terms to discuss each other’s problems. The situation in Box B is suitable for functional managers - people who already possess the knowledge and skills to run their own departments, but who are likely to have to cope with imminent change. It is also a suitable situation for managers of different units, which are under the direction of the same higher authority. Option C is recommended for experienced senior managers running a large department, charged with significant responsibility to carry out the organizational policy. Option D is an appropriate learning experience

for those concerned with policy formulation and critical decision making, like CEOs.

The members of the sets help each other by asking questions from many different perspectives. People who are familiar with a problem and a situation are often channeled into particular trains of thought by past experience. Decision makers are likely to be influenced by their own value systems and must be prepared for these to be challenged during the course of discussion.

By asking questions and bringing to light assumptions previously unexposed, those who are 'outside the problem' can often initiate a completely new approach. The set can be a comforting support group and an invaluable sounding board.

The development of the set into a team is not usually a smooth progression. It is common practice to organize an induction course to help the members understand the process. Most sets undergo the familiar stages of 'forming, norming, storming' before reaching the final goal of performing. The length and pattern of this process will depend to a considerable extent on the characteristics of the individuals and their particular mix.

Sets are encouraged to take responsibility of their own learning. They can be asked to record their learning experiences in logbooks. The questioning method is closely related to the learning cycle developed by Honey and Mumford:
Figure: 5.A.2 Action learning through the learning cycle

The Action learning method necessitates completing the learning cycle many times. It starts with the action or experience and works outwards to identify what needs to be learned (the answers to questions, What? Why? and How?), rather than putting learning first. Questions are raised and information is gathered to answer them. This process usually generates more questions. The findings are discussed and analyzed, possible options are generated and recommendations implemented. The member reports to the set, the outcomes (experience) of implementing the recommendations agreed at the last meeting and thus starts off another round of the cycle. The set manage and monitor their own learning and thus they are studying processes as well as outcomes. This constitutes learning to learn which transfers to all aspects of life.

Sponsors and Clients
Every set member must have a nominated sponsor, a member of top management, who can act on behalf of the organization should the need arise, and each project must have a ‘client’ who has an overlying interest in
seeing the matter actioned, and who wants to know the answers to the questions. If necessary, the client should prepare the way for the investigation of the problem, and facilitate a fair and reasonable hearing for the findings. The support of top management is vital, both to put the set member in a position of high profile with much at stake, and to help ensure that action is possible as a result of the project.

Nature of Projects
The problems under discussion must be real and significant. The participant must own the problem, be totally involved and in high profile, and therefore open to an element of risk, otherwise personal development will not take place.

Criteria for choice of project:¹

- Concerned with a significant problem within the manager’s area of operation but, in solving, would involve gaining a broader understanding than the confines of the department or section.
- Should include diagnosis of the problem, making recommendations and, where appropriate, initiating necessary action
- Offers a challenge, provides stretch, and is not a set of tedious clerical routines.
- Should not merely be concerned with gathering and collating information that yields little potential for learning.
- Within the timescale it is possible for some real impact to be made on the problem and, preferably, a plan for implementation.
- Should require involvement, co-operation and commitment of other colleagues.
- Should not be directed at the solution of the problems which are exclusively technical.
- Likely to contain a ‘people’ element.
- Should not be a puzzle to which there is no known solution
- May be linked to some planned or ongoing change
- Though primarily a learning vehicle should yield some worthwhile benefits to the project sponsor and the organization.

¹ Smith, Bryan. & Dodds, Bob., Developing Managers Through Project Based Learning, p-9, 1997, Gower Publishing Ltd., England
Examples of some projects undertaken by some organizations are:

- Develop marketing strategy for new products
- Recommend and implement a downsizing program
- Carry out a market research survey to develop a new image and improve standards
- Produce a strategy to improve sales performance
- Develop a plan for revamping the inadequate service departments
- Establish a PR strategy for the business and implement the initial stage
- Develop and implement new or revised systems, several of which included the following elements:
  - Management information
  - Cost control
  - Information technology
  - Stock control
  - Performance appraisal
  - TQM
- Action Learning has also been used in University Human Resource Development graduate programs to help students more creatively apply the HRD principles to real world problems.

The learning potential from projects is immense. A project may be seen as a ‘vehicle’ enabling the manager to undertake a journey resulting in both learning and practical benefit to the business.

Off-the-job management development programs, which do not provide managers with the wherewithal to transfer of learning fast and effectively to the work situation, will be an indulgence which organizations will not be able to afford. Ferocity of competition will necessitate a ‘transfer it now’ for off-the-job learning, as opposed to banking it for some possible later application. Therefore, infrastructures that enable organizations to effectively collaborate in learning transfer will be at a premium. Coaching, mentoring, self-organized learning, action learning and project based learning will be right at the heart of this movement to gain competitive advantage.
5.A.2.2 Job Aids

A job aid is a storage place, other than memory, for information that is used in performing a task\(^1\). A job aid provides the performer with auditory or visual signals that offer directions for carrying out increments of a task. At work a job aid may be a set of simple instructions for assembling a piece of equipment, or it may be a set of complex algorithms for analyzing a system. Job aids are simply checklists, diagrams, tables or other reference information to help a trainee perform a task efficiently, effectively, and correctly every time.

They are particularly useful for critical processes and procedures where performing the duty/task incorrectly could cause personal injury or equipment damage. They contain information we choose not to remember, information we can refer to when the need arises. Duties that are performed infrequently, and thus, would probably not be clearly retained in memory are another example of where a job aid is useful. Thus job aids reduce the need to recall information and minimize error and enable employees to perform tasks more accurately and to acquire new skills more quickly.

Moreover, job aids are up to three times less time- and cost-intensive than formal training that has memory storage as its objective. If the task in question is highly likely to undergo a change, it is easier to revise a job aid than to develop a new training course. Job aids can also be used to help reduce training costs. They should not be used as a replacement for necessary training, but basic training can be provided to the employee who can then be taught how to obtain information using job aids.

Job aids can be categorized into the following three basic categories:

a. *Informational*: calculators, drawings, directional signs or maps, indexes, Yellow Pages, flight schedules, etc.

b. *Procedural*: computer help assistants, maintenance or production procedure, vending machine/gas pump instructions, guided flow for credit card purchases via computer, faxing or shipping procedures for overseas clients or procedure to ensure appropriate accounting/charge codes.

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\(^1\) Elliott, Paul, *The Handbook of Human Performance Technology*, (1999), [www.ispi.org](http://www.ispi.org)
c. Decision-making: trouble shooting charts and checklists, questionnaires, tips for equipment troubleshooting pocket-guide.

Job aids represent just one of the interventions for improving performance and the need for a job aid must be established by analysis. Only after a performance problem has been discovered, its cause determined, and potential value and cost has been estimated, should it be ascertained whether a job aid is needed. When analysis reveals that deficient performance is due to lack of skills or knowledge, then it must be decided which of several information storage alternatives will be most effective in satisfying the need for information and correcting the problem:

- Developing a job aid only, and storing all information in some medium external to performer.
- Developing instruction only, and storing all information in the performer’s long-term memory.
- Developing a job aid in addition to supportive instruction, storing most information in a job aid, providing practice with using the job aid, and/or storing some information in the performer’s long-term memory.
- Developing instruction in addition to a prompting job aid, storing most information in the performer’s long-term memory, and providing a summary job aid that cues the recall of information.

These alternatives offer a range of choices for storing information, as seen below:

![Diagram](image)

**Fig:5.A.3** Alternatives for info storage
Storing information in long-term memory involves the following disadvantages:

- Even with good teaching, loss of retention begins within seconds and can become serious within hours. When the interval between learning and on-the-job practice will be long, loss of retention often rules out any possibility of performance improvement.
- When activities are based on what is retained in memory, there is greater variability in performance.
- Such variables as noise, personal problems, and prior learning can hinder performers from accessing long-term memory.
- Instructional design and development, and production of instructional materials, take time and raise costs. Moreover, training for storage of information in long-term memory takes longer and raises delivery costs, which typically exceed all other training costs combined.
- Retraining costs are higher when there is a change in the method of carrying out the task.

Job aids can be used to overcome all these disadvantages.

*When to use a Job Aid*

Job aids are not limited to particular types of tasks; they have been developed for such linear tasks as equipment assembly and the filling out of forms, but they have also been developed for complex tasks like medical diagnosis, business negotiation, and the analysis of complex systems. The amount of information available in a job aid is not limited; a job aid can be a single sentence or many volumes.

The following tasks are ideal candidates for job aids:

- Tasks performed with relatively low frequency (say, once a year). A task performed once a day is performed with high frequency.
- Highly complex tasks. A task with many steps is more complex than a task with only a few. A task may be qualitatively complex if fine discrimination of stimuli is involved, or if it requires recognition of different stimuli belonging to the same class, or if it involves a series of binary discriminations, as in inspections or troubleshooting
- Tasks with criteria that must be met if dire consequences (great financial loss, for example, or loss of life) are to be avoided.
Tasks whose procedures are very likely to change in the future because of changes in technology, policy or equipment. In such case other variables being equal, it is often not worth devoting time and other resources to the costly, time-consuming process of storing information in memory.

Given the wide applicability and benefits of job aids, they are an excellent training technique. In a review of studies conducted between 1958 and 1973 in the U.S. Air Force and the U.S. Navy, Rowan (1973) concludes¹: “job aids reduce training time, they decrease dependence on highly skilled personnel, they reduce the need for manpower and they facilitate cross-training on systems.” Harless (1980) reports²: “A company found no significant difference in performance between an experienced group of technicians designated as experts and an inexperienced group of technicians who employed a job aid in troubleshooting a system”.

¹ Elliott, Paul., The Handbook of Human Performance Technology, (1999), www.ispi.org
² Ibid
5.A.3 Off-the-job methods

Many formal management development programs occur off the job and away from the normal place of work. One reason for this is that a program is considered more of a perk if it is conducted in an exotic off-site location, rather than in-house, at the everyday workplace. Another reason for the off-site location is to remove the manager from the daily environment of the organization and thereby minimize interruptions and distractions. Organizations can conduct their own management development programs or send managers to generic management-skills programs offered by consulting firms or universities. A number of training methods are used in off-the-job management development programs.

5.A.3.1 Lectures

The lecture method has been the most widely used method to train people. A lecture is a verbal presentation of information by an instructor to a large audience. Lectures are regarded as one of the simplest ways of imparting knowledge to the trainees, especially when facts, concepts or principles and theories are to be taught. It can be particularly useful in training mid-career executives and administrators who are both knowledgeable and educated in their fields.

A virtue of this method is that it can be used for very large groups which are to be trained within a short time, and hence the cost per trainee is low. It can be organized rigorously so that the ideas and principles relate properly. Lectures are essential when there is a question of imparting technical or special information of a complex nature. In training the most important uses of lectures include:

1. Reducing anxiety about upcoming training programs or organizational changes by explaining their purpose.
2. Introducing a subject and presenting an overview of its scope.
3. Presenting basic material that will provide a common background for subsequent activities.
4. Illustrating the application of rules, principles; reviewing, clarifying and summarizing.
The main advantage of the lecture method is that it is simple and efficient and through it more material can be presented within a given time than by any other method.

Limitations of the lecture method account for its low popularity. The method violates the principle of learning by practice. It constitutes a one-way communication. There is no feedback from the audience. To break the boredom, the trainer often resorts to anecdotes, jokes and other attention-getters. This activity may eventually overshadow the real purpose of instruction. However, the lecture method can be made effective if it is combined with other methods of training. They can be enlivened with discussions, film shows, case studies, role-playing and demonstrations. Audio-visual aids enhance their value.

In effectively using lectures for management development, the following conditions have been suggested: ¹

i. It should be sparingly used - two or three times a year.
ii. It will be more readily accepted by people who have several years of conventional training.
iii. The subject matter should be carefully chosen as applying to the specific area.
iv. The approach can be largely theoretical, but with the help of visual aids - especially slap board, chart and blackboard.
v. The in-plant leader should take care not to create the impression that the material as his own. The author or authors from whose writing the lecture is drawn should be introduced very much as though they were actually present. Where possible the books and documents should be on display.
vi. The leader should stress that the application of the ideas should be at the option of the individuals based on their respective situations.

5.A.3.2 Group Discussions

Group discussions are structured instructional meetings. They are held for the purpose of investing general knowledge, of influencing attitudes, and of

solving problems. They differ from lectures in that the audience now become active participants with a leader, whose responsibility is to guide the discussion and prevent it from straying from the topic at hand.

The discussion may either follow a lecture, in which case it is called a Lecture-Discussion, or it may be introduced by the remarks of the leader, or a series of speakers; or it may be based on working papers distributed in advance. Discussions of the last kind are known as Seminars and Conferences. Seminars are usually more informal in nature than conferences. All forms of group discussion require a leader, often designated as moderator or chairman. The leader prepares an agenda in advance so that the discussion will proceed along a desired path leading to a predetermined objective. At the conclusion, he usually provides a summary. The leader also has the responsibility of eliciting participation from all members of the group, as well as of preventing one or more members from dominating the session.

Workshops are group discussions, but they are not tightly organized instructional groups. Rather, they are quite unstructured, being conversational in character. Workshops are arranged for the purpose of exchanging operational experience in a particular area or field of management by specialists in that area. They are not used for the presentation of general knowledge, but rather are usually concerned with the application of techniques and procedures. Usually the leader of a workshop session has an agenda or plan, but the discussions necessarily follow the information that the participants offer.

Discussions, as a training method, have the advantage of providing constant feedback to the leader or trainer about how much the participants have learned. By actual participation, it is believed, members are more likely to retain the knowledge transmitted than they would by lecture. They also receive practice in communication, and are provoked into thinking. However, to be of value, discussions require three ingredients: an agenda, a skilled leader, and able participants. If any of these is lacking a discussion is apt to lapse into conversation.

Conferences and seminars are popular in administrative circles in both public and private sectors. They are widely used in management education and have been found particularly effective in attracting senior administrators and thereby introducing them to and involving them in training programs.
5.A.3.3 Case Study

The case study method was developed at the Harvard Business School in the 1920s. The method presents the trainee with a written description of an actual or hypothetical problem in an organizational setting. The trainee is required to read the case, identify the problem and recommend solutions.

The case study is based on the belief that managerial competence can best be attained through the study, contemplation, and discussion of concrete cases. The case is a set of data, real or fictional, written or oral miniature description and summary of such data that present issues and problems calling for solutions on the part of the trainee. The participants are challenged to present and defend their analyses, under the direction of the faculty these various solutions are discussed and again analyzed. The emphasis is more on the analysis than on the solutions reached as a result. The method points to the fact that there is more than one possible solution for any situation.

In the case study method, the trainee is expected to:

i. Master the facts, become acquainted with the content of the case,
ii. Define the objectives sought in dealing with the issues in the case,
iii. Identify the problems in the case and uncover their probable causes,
iv. Develop alternative courses of action,
v. Screen the alternatives using the objectives as a criteria,
vi. Select the alternative that is most in keeping with the stated objectives
vii. Define the controls needed to make the action effective.

Another variation of this method is to use very short cases, perhaps two or three paragraphs in length, to describe a simple problem in human adjustment. It is often used in training programs for human relations. The short case is more appropriate when the need is for problem handling; the longer case is used when trainees need to increase their understanding of certain aspects of running a business or organization.

The case study has several intended purposes. It shows the trainees that there is usually no easy solution to complex organizational problems. It helps trainees realize that different perspectives and solutions to the same case may be equally valid. It encourages open mindedness and serves as a means of integrating the knowledge obtained from different basic disciplines. This method is especially helpful in developing analytical thinking in a
competitive milieu. It helps managers understand the complexity of business and its many functions. It is a valuable as a technique of developing decision-making skills and problem solving skills and for broadening the perspective of the trainee.

5.A.3.4 Incident method

The Incident method is a variation of the case method and was developed by Paul and Faith Pigors at the Massachusetts Institute of Technology. In this only one simple incident taken from an actual situation in business is given to the participants. Only the instructor knows the other pertinent data about the incident. The participants must ask questions to get the other relevant information at a fact-finding session. The general trend of questioning is to find about the what, when, where and how of the situation in which an incident developed. Clues are also tracked down if they seem to offer reliable insight into the why of behaviour. After the collection of data, it is necessary to isolate the most important items for decision-making. Each member then analyzes the problem and writes his own solution. Appended to each incident is an invitation to make short-term decisions in the role of a person who had to cope with the incident when it actually happened. This is followed by a general session, where solutions of all participants are discussed. Finally, the instructor reports the actual solution reached in business.

This training method was developed to train managers to seek information that will permit diagnosis of a problem. Thus the emphasis is more on the search for information than on the analysis, as in the case method.

5.A.3.5 Role Playing

This method was developed by Moreno, a Venetian Psychiatrist. It has been defined as a method of human interaction which involves realistic behaviour in imaginary situations. Role-playing as the name implies requires the participants to act out or play the roles in a given situation in business. The situation that is to be enacted is structured in detail, including the position, feelings thinking and beliefs of each character. The purpose for which the scene is to be played must be clearly stated at the beginning; it may be designed to demonstrate the use of a technique or it may be played to dramatize a character or a situation.
Two or more trainees are assigned parts to play before the rest of the group. These parts do not involve any memorization of lines by the players. The role players are simply given a detailed brief of a situation and the respective roles they have to perform. After some preliminary planning, the roles are acted out by the trainees. After the dramatization, there is a session for analyzing, evaluating, feedback for suggesting improvements in the skills of the actors in interpersonal relations.

Role-playing primarily involves employee-employer relationships - hiring, firing, discussing a grievance procedure, conducting a post appraisal interview, or disciplining a subordinate or a salesman making a presentation to a customer. The primary purpose of role-playing is to analyze interpersonal problems and to develop human relations skills. The technique can also be used to place an individual in another person’s role, such as a manager in a subordinate’s situation. Such a ‘role reversal’ allows the manager to experience firsthand what the subordinate experiences. Thus it also offers insights into the emotions and thinking of others in various positions and situations. Role-playing gives an opportunity to practice approaches to forthcoming real life situations, and also to replay a situation that was not successfully handled in the past, in order to extract lessons for the future.

One advantage of this technique is the dynamics of the role-playing as it unfolds. Decisions must be made on the spot. Participants must respond immediately to the other players. This spontaneous action moves the role-playing closer to reality for the trainee. For example, interpersonal interaction in a role-play is often characterized by real emotions and feelings. Thus the trainee must not only deal with the factual content of the communications but also with the emotional and interpersonal parts of it. Therefore, role-playing helps in promoting interpersonal relations and also results in attitude change. Role-playing does simulate life situations and can be a power aid to learning.

5.A.3.6 Sensitivity Training

This method was originally developed by Kurt Lewin. It is also known ‘T-Group training’, group dynamics laboratories, encounter groups, etc. According to Chris Argyris, “sensitivity training is a group experience

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designed to provide maximum possible opportunity for the individuals to expose their behaviour, give and receive feedback, experiment with new behaviour and develop awareness of self and others.”

A typical session involves small unstructured groups, consisting of not more than 12 people, who regularly interact with each other, through various activities like discussions, case studies, role-plays and any other activity involving group interaction. The sessions are completely unstructured except to the extent that the instructor helps the participants to focus on the way the group is working, and the issues that the group faces. Discussions focus on, why participants behave the way they do, how they perceive one another, and the feelings and emotions generated in the interaction process.

The goal of sensitivity training is broadly defined as helping trainees to improve in quality and participation in human relations. T-group training helps managers to:

- Increase awareness of their own behaviour and how others perceive them.
- Increase understanding of the behaviour of others and how it influences their own behaviour.
- Understand how groups work and group processes
- Learn how to behave effectively in interpersonal relationships
- Learn how to diagnose human relations problems
- Develop cohesive relationships between people and express feelings openly
- Confront interpersonal problems directly and solve them rather than avoiding them
- Develop team building ability
- Develop decision-making ability.

Thus, the objectives of sensitivity training include an understanding of oneself and sensitivity to others, an ability to listen to others and to communicate, a diagnostic understanding of group problems, an ability to contribute effectively and properly to the working of the group and an understanding of the complexities of inter-group and intra-organizational problems. Specific results sought include increased ability to empathize with

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others, improved listening skills, greater openness, increased tolerance of individual differences and increased conflict-resolution skills.\textsuperscript{1}

Sensitivity training can be offered by itself in either block sessions or in part-time sessions over a period of time. It can also be a part of a larger laboratory-training program which includes other participatory methods, such as role-playing, business games, or case studies. It is often part of an advanced or general management program.

5.A.3.7 Grid training

Grid training is based on the “managerial grid” developed by Blake and Mouton. The grid represents several possible two-dimensional leadership styles, where each style represents a different combination of a manager’s concern for people and concern for production.

The grid, depicted below, has 9 possible positions along each axis, creating 81 different positions in which a manager’s leadership style may fall. The grid shows the dominating factors in a manager’s thinking with regard to getting results.

\textsuperscript{1}Manoria, C.B., ‘Executive Development’ in Personnel Management, p-384, 12\textsuperscript{th} Ed, 1997, Himalaya Publishing House.
The management program is built around this managerial grid. Throughout the program the participants explore the different managerial styles. The program aims at developing open confrontation of organizational problems and high-people-high-production (9,9) leaders. It is a six-phase program. It starts with upgrading managerial skills, continues to group improvement; improves inter-group relations, goes into corporate planning, develops implementation method and ends with an evaluation phase. The participants learn alternative strategies of management in relation to planning, execution,

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supervision and follow up through lectures, precise experiments and group studies.

The objective of grid training is to expand the professional development of the executive and the organizational development of his enterprise.

5.A.3.8 Business Games and Simulations

A business game or simulation may be defined as a sequential decision-making exercise structured on a model of a business operation, in which the trainee assumes the role of managing the simulated operation.\textsuperscript{1} Since 1957, when the first business game appeared, more than 1000 business simulations are commercially available.

In a business game, the participants are split into competing groups, each of which sets up an imaginary company. Sometimes the organizational structure is known and the trainees are assigned to certain roles, other times they assign themselves. In still other games, the organizational structure is part of the game and can even be the most important decision to be made by the group. Once the roles are assigned then the group is asked to make decisions about organizational matters such as research and development, pricing, and entering new markets, gain the largest share of a market or to invest in plant expansion. They must do this within the economic laws and boundaries prescribed and in competition with other groups seeking the same objectives in the same market. As each group acts out its imaginary situation, it makes decisions based on the information fed to it as the action develops. This requires constant analysis and evaluation of the situation and the making of decisions based on the analysis.

When each group has completed its game, the results are compared, usually on a mathematical basis, and one of them is judged the best. After the game is finished, there is an evaluation session, when the game is rerun with all the information available to all players, as well as their actions, competitors actions, etc. This evaluation of their decisions is considered by many to be the most valuable part of the game for the participants.

Some games are more structured than others, inversely proportional to the level of management involved, i.e., the higher the executive level, the less the structuring. Some games cover only one functional area of an enterprise, others the entire corporate scene. Some are complex, some are simple. Some use computers. Some games involve only one team of executives instead of pitting teams of trainees against one another as they emphasize problem-solving behaviour, not competitive tactics. The goal is to hold up players' managerial techniques to scrutiny, not for one team to clobber the rest.

Looking Glass Inc. is the oldest and the most widely used simulation\(^1\), in which a team of about 20 managers is required to run a make-believe glass manufacturing company for one day. In a simulation named Financial Services Industry, where trainees occupy top posts in two fictitious companies, Metrobank and Investcorp\(^2\). The exercise simulates a business day in which managers grapple with planning issues raised by technological change and the deregulation of the financial industry. Investcorp executives must stop infighting between their stockbrokers and the agents of an insurance subsidiary who are licensed to deal in securities. A large number of companies like AT&T, Monsanto, IBM, Citicorp, Merrill Lynch, are sending their executives for such simulations. Two corporate giants, AT&T and IBM have even gone to great pains to tailor simulations to their own needs.

Looking glass serves different corporate objectives in different training programs. Union Pacific, which acquired two additional railroads, uses Looking Glass as a sort of melting pot, to show employees from the three organizations that they can work together. Dow Jones uses it to encourage managers from different segments of the company to get to know one another, so that they can cooperate to get jobs done. At Monsanto, Looking Glass is part of a management course aimed at getting company scientists to consider executive jobs; the course is supposed to dispel stereotypes of managers as uncreative drones.

But the primary objectives of these business games are to teach general management skills such as decision making, setting priorities, long-range planning, and effective use of time, personnel and equipment. In addition trainees develop an appreciation of the complexity of organizations and the

\(^1\) Petre, Peter., “Games That Teach You To Manage”, Fortune, Oct 29, 1984, pp 51-54.
\(^2\) Ibid
many factors that must be considered before making a decision. The games can also teach individuals the concepts of teamwork, risk taking, and the importance of functional skills and interpersonal relations. They allow managers to experience real-world problems without having to suffer the consequences of poor decision-making. Business simulations allow time to be compressed. With these games trainees can experience several years of organizational performance in just a few hours.

5.A.3.9 In-Basket Method

This is a simulation training technique designed around the “incoming mail” of an executive. A variety of situations are presented which an executive would usually deal with in his working day. The participant is given a number of business papers such as memoranda, reports and telephone messages that would typically come across a manager’s desk. The papers presented in no particular sequence, call for actions ranging from urgent to routine handling. The participant is required to take a decision or make recommendations on the information contained in these papers. His reactions and responses are taken in writing on each of the papers and then analyzed. Feedback on his decisions forces him to reconsider not only his administrative actions but also his behavioral style.

The in-basket exercise offers scope for focusing on the entirety of a role in terms of its various dimensions. It is possible to cover many situations calling for a variety of critical attributes. It tests an individual’s application orientation as it calls for decisions to real situations. It, therefore, offers an organization, opportunity to test a capability rather than knowledge alone. As a developmental tool, the learning is immense. One has the opportunity of feedback on the decisions he has taken. Apart from the feedback on his responses the learning is also from the responses of others on the same situation.

5.A.3.10 Programmed Instruction

This consists of the presentation of instructional material to the trainees in small blocks either in book form or through the computer. After reading each block of material, the learner must answer a list of questions about it, before progressing to the next block. The questions are an integral part of the scheme, and are usually designed in such a way that it is not possible to complete the program without answering them. If an answer is incorrect the
trainee is immediately referred back to the appropriate point in the instructional material for revision. Blocks are carefully arranged into a logical progression of knowledge and levels of difficulty.

Thus programmed instruction involves¹:

1. Presenting questions, facts, or problems to the learner.
2. Allowing the person to respond
3. Providing feedback on the accuracy of his answers.
4. If the answers are correct, the learner proceeds to the next block. If not, he repeats the same.

A major advantage of the method is that it allows the trainee to learn in small steps at a pace and rate suitable to him. Strong motivation is provided to the learner to repeat learning. Material is so structured and self-contained, offering much scope for practice.

5.A.3.11 Neuro Linguistic Programming

“Neuro linguistic programming is the new technology of achievement”². The origins of NLP can be traced back to one of India’s ancient texts, the Rig Veda. NLP has been practiced by our ‘rishis’ since Vedic times and several Vedic ‘shlokas’ talk about the ‘mind-body’ connection. In the NLP, neuro is derived from nerves (representing behaviour), linguistic is derived from language (meaning structure), programming is borrowed from computers (meaning creating change). NLP creates structured behavioural change in the attitudes of individuals.

The methodology used in NLP is modeling, which is the process of duplicating excellent behaviour. Another person’s behaviour can be duplicated by studying what that person does inside his head (language, filters, programs, etc) to produce results. NLP was initially created in 1975 by Richard Bandler and John Grinder, who began modeling and duplicating the “magical results” of a few top communicators and therapists. Since then many others have contributed to the growth and development of the field. And finally, the trail of techniques created through this type of modeling is what is commonly known as NLP.

NLP has been defined as “the study of human excellence”. What are the thought processes, the beliefs, the psychologies, and the communication patterns of people who do things exceptionally well? By modeling these people and adapting their formulas to our personal situations we can begin to maximize our potential and help others to maximize their potentials in any given area. Similarly, if we excel in one particular area, we can apply our own formula to areas where we are less successful. NLP techniques work with thought process, changing the way we relate to life events so that we can feel and behave in a way which supports achieving the results we want.

NLP studies the structure of how humans think and experience the world. The structure of something so subjective does not lend itself to precise, statistical formulae, but instead, leads to models of how things work. From these models, techniques for quickly and effectively changing thoughts, behaviors and beliefs that limit us, have been developed. NLP provides a diverse set of tools for creating change in yourself and others.

Application areas of NLP
Among its varied applications are improvement of conceptual skills, analytical ability and communication skills of teams, with a focus on body language and communicating to the subconscious.

NLP can be put to use in a variety of diverse corporate and individual environments. Managers and entrepreneurs use the information to develop strong teamwork and relationships, and to foster positive interpersonal relationships. Negotiations and problem solving sessions are enhanced to create solution oriented, win-win approaches. One popular application of NLP is training for sales professionals. It can be used to teach sales professionals to create rapport and trust with their prospective clients in few minutes and build sales by creating opportunities which arise from an atmosphere of mutual trust and understanding. NLP techniques like mirroring and anchoring help them to program their client’s behaviour by targeting their subconscious minds!

NLP helps to improve communication. In this area, NLP allows us to establish a good rapport based on trust and understanding with those to whom we are speaking. It teaches us to check his/her emotions and to take them into consideration, to listen, to ask pertinent questions, to structure and lead a dialogue, to formulate and attain not only our own objectives but also those of the other speaker so that each party is a “winner”.

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NLP helps in Control and Mental management. In this area, NLP teaches us about the characteristics of the cerebral functions in order to gain control of our mental processes and emotions, whilst developing spontaneity and dynamism. Mental management means, amongst other things: knowing how to learn quickly, how to manage your internal state, knowing how to control motivation, knowing how to improve flexibility and adaptability in all sorts of situations, knowing how to get the most from a “failure”, knowing how “to regain” a neutral state at any moment, to make the most of fears.

NLP, being unique, proposes personal development. It teaches us to use our dormant skills. We discover, amongst other things, how to achieve our professional and personal goals, how to use the most appropriate verbal expressions spontaneously, how to deal with all sorts of difficulties, how to understand ourselves better, how to take stock of ourselves how to discover our basic values.

The human brain is as powerful as a supercomputer. Supercomputers can be programmed using software; the human brain too can be programmed using NLP.

5.A.3.12 Learning Histories

A group of social scientists, business managers and journalists at MIT’s Center for Organizational Learning have developed a tool to solve the conundrum of collective learning. They call their solution a “Learning History”.

A Learning History is an approach which 1) applies the assessment of an organizational change initiative through 2) an effort to develop the capability of the people in the change process to evaluate their program and its progress, in the service of 3) creating materials that will help to diffuse their learning to other interested parties. In combining these three elements of learning history work, we create a feedback cycle at an organizational level. Assessment to capability-development to evaluation and back to assessment becomes a process of organizational reflection that leads to the development of actionable knowledge (Argyris, 1993). Actionable knowledge, in this context, represents both the “know-how” and “know why” that guides
people’s actions so that they can consistently produce the results they set out to achieve.

In the most basic terms, a Learning History is a narrative of a company’s recent set of “critical episodes”, a corporate change event, a new initiative, a widespread innovation, a successful product launch, or even a traumatic event like a downsizing. The document ranges in length from 25 to 100 pages, nearly all of it presented in two columns. In the right hand column, relevant events are described by the people who took part in them, were affected by them, or observed them close-up. Managers, factory line workers, secretaries, and outsiders such as customers, advertising copywriters, or suppliers, tell their part of the tale. Each person is quoted directly, and identified only by title. The words are woven into an emotionally rich, coherent story.

The left hand column contains analysis and commentary by the “learning historians”, a small team comprised of trained outsiders, usually consultants and academics who specialize in organizational learning, along with concerned and knowledgeable insiders, usually drawn from the company’s human resources or organization effectiveness departments. This team has sorted through hundreds of hours of interviews to “distill” the story in the right-hand column. And in the process, they have come up with the text for the left-hand column, which identifies recurrent themes in the narrative, poses questions about its assumptions and implications, and raises “undiscussable” issues that hover just below the surface of the quotations along side.

It is used as the basis for group discussions for those involved in the event, and those who might learn from it. (This audience might well include every manager and employee in the organization). For instance, a learning history about one division’s successful product roll-out may be used to spark conversations in another division about to launch its own new product. The members of the latter division are asked to read the learning history, marking portions of the text that upset, excite, or otherwise engage them. The learning historians then meet with these people in small groups, facilitating an open dialogue about the ways of thinking that led to the first group’s

success. The goal of these meetings is to get a better understanding of the critical choices faced in planning new actions.

To date, more than 15 learning history projects have been conducted, mainly at large American companies trying to make sense of major, controversial incidents in their recent history. In one case, a car company’s new-product launch team broke internal records for quality and speed to market; the learning history illuminated the new kinds of cross-functional interrelationships which had led to those results. In another, the learning history examined the transformation effort at a Fortune 50 company, in which many entrenched business units were eliminated, others combined, and several new ones introduced. Fall-out from the transformation left thousands of employees struggling with questions about the culture of the new organization, and the role of managers within it. The learning history helped many people move forward by showing the common, unspoken dilemmas that the entire organization was wrestling with: How to act entrepreneurially, for instance, amidst a bureaucratic legacy.

Why Learning Histories Work
Learning histories have several effects. First, and perhaps most important, they build trust. People who believe their opinions have been ignored in the past come to feel validated by the presence of those opinions in the document (no matter who expressed them). People who have felt isolated come to feel as if they are not alone in their efforts to carve a better future for themselves and the company. Finally, the small group discussions that accompany the learning history provide new opportunities for collective reflection. These help people clear the air about their own concerns, fears, and assumptions, and thus develop a higher level of confidence in each other. As trust grows, it creates an environment more conducive to learning, particularly collective learning, because collective learning depends upon the candid sharing of ideas.

Second, learning histories appear to be especially effective in raising issues that people want to talk about, but have not had the courage to speak out loud. The document, with its anonymous right-hand column commentary from participants and pointed prompting in the left-hand column, does this for them, in a safe environment. Thus, a long-standing rivalry between two plants in a manufacturing company came to surface in one learning history, in a way which showed how both sides had, in effect, colluded to keep that
rivalry going, at the expense of the quality of the machines they produced together.

Third, a learning history has proven particularly successful at transferring knowledge from one part of a company to another. Instead of merely copying others’ “lessons learned” (which may not fit their situation), readers of the learning histories can read about the reasoning and impulses which had led to those lessons, and apply the insights to their own implementation. Finally, learning histories also help build a body of generalizable knowledge about management, what works and what doesn’t. Learning histories are commissioned to analyze one event, but their lessons often supersede it. For example, one recurring lesson is that “hard” results, such as financial returns or technical objectives, frequently depend on “soft” issues, such as company culture and the level of trust within an organization. Indeed, the learning histories to date have strongly suggested that in reengineering, redesign, or quality efforts, the single most critical factor for success is the quality of human interaction in the organization, which in turn depends on the humility and openness of the leaders who direct the effort. There are other recurring themes in learning histories, so many, in fact, that someday learning histories may be routinely included among the textbooks and treatises in business schools and libraries, to be used as an important source of insight for those engaged in developing the science of management.

5.3.13 Discovery Learning

Discovery Learning is defined as a “Learning situation in which the principal content of what is to be learned is not given but must be independently discovered by the learner” \(^1\). The discovery-learning mode requires that the trainee participates in making many of the decisions about what, how and when something is to be learned and even plays a major role in making such decisions. Instead of being told the content by the instructor, it is expected that the trainee will have to explore examples and from them discover the principles or concepts that are to be learned.

Discovery learning is a technique that allows trainees to “teach themselves” given the right tools and guidance. For example, recent training session for recruiters in ‘how to write effective recruitment ads’ that stood out from the

\(^1\) [http://ericir.syr.edu]
competition as well as recruiting qualified candidates, started by assigning each trainee to search for jobs in their specialty areas.\footnote{1}

Once the participants had 3-5 ads in one professional area, they were instructed to compare and contrast the ads identifying those elements that were attractive and compelling and those elements that were distracting or left the readers with more questions than answers. They were also asked to list information that they felt was missing from the ads. After each individual’s analysis was complete, the participants were broken down into groups of 3-4 and were instructed to discuss what they liked and disliked about the various ads that they had collected. This small group discussion was then opened up to include the entire training group, in a discussion of what was attractive and unattractive about an ad. A master list was then created, with input from the entire group.

Alternatively, an instructor could have given the participants a list of do’s and don’ts in advertising and talked about each one briefly. But the discovery method of learning guides the learner to discover on his own. This method ensures that the new information is internalized and will be remembered for a longer time.

Discovery learning emphasizes a hypothetical mode of teaching/learning as opposed to a more didactic mode. Discovery learning encourages trainees to ask questions and formulate their own tentative answers, and to deduce general principles from practical examples or experience.

Discovery learning has the following advantages:\footnote{2}

- Supports active engagement of the learner in the learning process.
- Fosters curiosity
- Enables the development of life long learning skills
- Personalizes the learning experience.
- Highly motivating as it allows individuals the opportunity to experiment and discover something for themselves
- Builds on learner’s prior knowledge and understanding.

\footnote{1}{Nanette, M., Discovery Learning, www.traindr.com}
\footnote{2}{wysiwyg://18/http://www.csd.uwa.edu.au.altmodes.to-delivery/discovery-learning}
5.A.3.14 Adventure Training or EBTD

Organizations realize that the skills necessary to survive in today’s marketplace are leadership, teamwork, and risk taking. These organizations are finding that one of the best places to acquire these skills is in the great outdoors. Outdoor training is often referred to as adventure training or Corporate Adventure Training (in Canada and Australia), Outdoor Management Development (in UK) and Experience-based Training and Development or EBTD (in the U.S.). This training uses group activities to improve teamwork and accomplish other corporate goals such as improve morale, manage change, boost creative thinking, or enhance communication. Outdoor training was originally developed by Outward Bound in the 1940’s. In the 1970’s corporate consumers began to see its usefulness for building teams and leadership skills within the workplace. Since then outdoor training has flourished and has become an integral aspect of organizational training. Nestlé and Unilever are among the blue-chip companies which are using the training systems of the Israeli defence forces to develop leadership skills and teamwork among their executives. Abseiling, self-defense, zip sliding and firing live ammunition are among the activities on the agenda for the executives.

The label of Experience-based Training and Development (or EBTD for short) is used to describe a wide variety of activities that are finding their way into mainstream human resource courses, management education classes, and organizational learning schemes. It is an approach to training and development which utilizes adventurous educational experiences (activities which involve some form of perceived physical or emotional risk) to bring about positive changes in individuals, groups, and organizations. EBTD programs provide challenging and novel activities coupled with unusual opportunities for shared reflection. In this way, the approach creates learning environments within a supportive atmosphere, which in turn bring about learning outcomes beyond those of the typical lectures or simulations. Because this approach can be more realistic than simulations, and because it provides opportunity for practice through experience, it proves extremely useful in training and development situations where resistance to change is prevalent or where an attitude of rigid thinking exists.

1 Mendel, W., Corporate training by adventure learning, Cornell Hotel &Restaurant Administration Quaterly, p-220, June 1993
2 wysiwyg://12/http://www.managementfirst.com
The tasks involved in adventure training consist of giving the group a task to achieve and then reviewing their performance. There are many different types of activities in which a group can take part, and each activity can be used to reach a different goal. The first type of training is called wilderness training. In wilderness training, participants live outdoors and engage in strenuous, risky, activities. These activities may include mountain climbing, whitewater rafting, sailing, rock climbing, repelling, hiking, flying, snow shoeing, camping trips, kayaking, canoeing, and backpacking. The second type of training is outdoor-centered training. In this sort of training, participants live and eat indoors, but a majority of their training consists of structured outdoor activities. There are two levels of outdoor centered training: low-impact and high-impact. Low-impact programs consist of activities with a limited physical risk. These activities may include low ropes course, building a bridge, orienteering, and running a windmill building “mini business”. These activities usually are aimed at improving group skills. High-impact programs consist of activities involving a relatively high level of perceived risk. These activities may include high ropes course, rope bridge walking, rock or wall climbing, and repelling. These activities are especially good for focusing on individual skills.

A number of components, specific to EBTD programs, place it apart from more traditional and conventional forms of training and development:

- EBTD is experiential: while working under hands-on conditions, people learn best by doing. Adventure activities utilize perceived risk and yet are quite safe.
- EBTD is dramatic: the excitement and emotional nature of these activities focus attention and sharpen minds. People remember what they learn.
- EBTD is novel: because of the unique context and uncertainty of outcome for these activities, no one in the group is considered to be an expert. Adventures tend to equalize people and break down the hierarchical barriers and apprehensions that often exist in large organizations.
- EBTD is consequential: errors have potential ramifications in adventures (getting wet in a canoe or falling on a rope), unlike in a

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2 [http://www.protectchallenge.com](http://www.protectchallenge.com)
classroom simulation (where play money is lost). Furthermore, success and failure is supported by those who really matter (coworkers and oneself).

- EBDT is metaphoric: adventures are a microcosm of the requirements needed for and changes taking place in the work world. The behaviors demonstrated by individuals and groups during these activities are parallel representations of the way they act and what happens in the office. As such, new learning (skills, coping strategies, and bonding among personnel) can be analogously applied toward future efforts on the job.

- EBDT is transferable: testimonials by past participants support the utility of experience-based training, and research studies substantiate that new learning does indeed show up in the workplace. People refer back to their experiences and approach their tasks from a fresh perspective.

EBDT is holistic, involving all the senses and accommodating a variety of learning styles, with clear and simple goals providing immediate feedback on performance regardless of success or setback. Unlike simulated games, EBDT programs offer concrete experiences which are task oriented, just like work, and are intriguing, so that everyone desires to get involved. The activities are new, fun, and invigorating; they provide opportunities to experiment with new behaviors and skills in a safe environment which encourages risk taking.

Benefits
EBDT can benefit the individual employee, the management work unit, and the parent organization through individual development, group development, cultural development, and the interaction of all three.

Benefits to the individual include development in self-confidence leadership style, risk-taking propensity, dealing with fear and stress, decision-making, and personal inspiration and commitment.

The work unit benefits from improvements in goal setting, team building, leadership, time management, conflict resolution, group problem solving, collaboration, and cooperation.

Outcomes for the organization involve an enhancement of systems, structure, values and ethics, vision and mission, corporate climate, and
motivational atmosphere, which results in increased productivity, decreased absenteeism, lower turnover, and higher profits.

Lastly, an interaction of the other three developmental areas (cultural, personal, and group) can lead to empowerment, trust and integrity, effective communication, environmental safety, judgment based on experience, and coping with change and uncertainty, as these benefits are shared among all aspects of the corporate organization, individuals, and work units.
Part B

Technology Based Training Methods
Technology-based training (TBT) has been available for a number of years in various forms and is growing in popularity. Technology, in various forms, has always held forth the promise of improving education. This is true whether one speaks of scholastic education or its cousins, corporate and commercial training programs. Computer-assisted instruction (CAI), instructional television (ITV), and programmed instruction (PI) can be counted as early examples wherein technology has been applied to education. The most recent and perhaps most visible cases in point are Web-based training programs and degree-granting programs from fully accredited institutions offered via what is known as “distance learning.”

Unlike its predecessor, the correspondence course, distance learning offers far more than a text and a workbook. The United States Distance Learning Association (USDLA) defines distance learning as:

“The delivery of education or training through electronically mediated instruction including satellite, video, audio graphic, computer, multimedia technology and other forms of learning at a distance.”

The USDLA notes that distance education refers to teaching and learning situations in which the instructor and the learner or learners are geographically separated and therefore rely on electronic devices and print materials for instructional delivery. Distance Education includes distance teaching - the instructor’s role in the process; and distance learning - the student’s role in the process.

The trend towards technology training has prompted private training developers to offer more courses taught this way. Schools such as the University of Idaho (www.uidaho.edu), Massachusetts Institute of Technology (www.mit.edu) and the Rochester Institute of Technology (www.rit.edu) offer engineering, statistical process control, metallurgical and other courses conducted via the Internet and e-mail. Eastern Michigan University’s Center for Quality (www.centerforquality.org) is developing an online course development program to offer custom-design corporate training programs. Click2Learn.com and TrainSeek.com are two companies that use the Internet to market training products. The ASTD (www.astd.org) also has a website that offers courses.

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1 “Distance Education at a Glance” developed by University of Idaho,
2 Adams, Larry., Training Trends: Grow Close Through Distance Learning, Quality Magazine, April 2000
Today's technologies, particularly the Internet, make independent learning possible on a scale never before imaginable, easily supported by a rich array of resources previously unavailable at low cost. These include virtual classrooms, digital libraries, and computer simulations that substitute for laboratories. Also at work here is access to other learners and knowledge resources on an almost unlimited basis at times that are convenient for the learners.

Education and training providers are exploring new learning technologies—or delivery methods—that augment or replace their current delivery practices. The personal computer and electronic communications systems create a virtual educator's toolbox that did not exist even as recently as five years ago. New delivery methods provide the learner with opportunities for education outside the traditional, instructor-led classroom. Previously, the focus of the new learning technologies was improving access to learners disadvantaged by distance, work practices, or lifestyle. Today, however, interest in the new technologies is no longer limited to distance education applications. Emphasis is now placed on how these technologies affect learning and their cost effectiveness compared with traditional training methods.

These technologies include the Internet, intranets, Computer-Based Training-Text, CD-ROM, multimedia, satellite videoconferencing, advanced technology-interactive classrooms, and electronic performance support systems. Most training professionals now accept them as a credible form of training delivery that have both advantages and disadvantages when compared with 'traditional' tutor-led training events (group or individual).

Often, training programs, tools and delivery systems are unplanned, or unrelated to business needs. Unnecessary frills and extra expenditure creep in, and continue unnoticed. Take the issue of travel; employees or trainees traveling to remote locations to attend or impart courses also miss put on huge chunks of work in the bargain. And now, organizations are finding it difficult to reconcile to the idea of diminishing returns. Organizations are rethinking the expenses attached to conventional training. Because traditional, instructor-led classroom training is expensive, often costing thousands of dollars plus the price of travel, companies are investing in electronic learning options in record numbers.
New learning technologies can add value to an organization’s performance as follows:

➢ Create flexibility in time, place, and manner of training to suit the requirements of the organization as well as the learner.

➢ Improve access to learning and contribute to the quality and standards of delivery.

➢ Provide a means of fostering career-long learning, thereby contributing to continuous improvement and to upgrading, maintaining, and growing the skill level and knowledge base of the workforce in changing conditions.

➢ Enable individual, interactive methods of learning that can be more effective for some learners than classroom delivery methods.

➢ Materials are always available and can be easily updated.

➢ Provide accountability snapshots of an organization’s investment in, and measured outcomes from, learning and development.
5.B.1 CBT

A general term used to describe any learning event that uses computers as the primary distribution method; typically used to refer primarily to text-based, computer delivered training. Computer-Based Training (CBT)-Text involves the dissemination of text for instruction via any electronic means. CBT was one of the first methods of e-learning, and although, outdated, it can still be extremely effective, especially for individual training and courses that rarely change. CD-ROM-based courses are best suited for self-motivated employees because the courses are self-paced and do not offer any instructor feedback.

5.B.1.1 CD-ROM

Students can also access information from their CD-ROM drives. CD-ROM technology provides a format and system for recording, storing, and retrieving electronic information on a compact disk. CD-ROM technology provides the obvious means for distributing multimedia programs; indeed, one could make the argument that CD-ROM made multimedia technology viable by providing a suitable medium. Furthermore, CD-Rom is a very cost-effective delivery medium. Considering how much information can be contained on a CD-ROM, it is very clear why this technology is superior to paper from an economic perspective. Furthermore, CD-ROMs cannot be easily duplicated, so it provides a greater degree of copyright protection or security for proprietary information - a very important factor for training providers. An equally nice development is the emergence of inexpensive CD-ROM recorders (CD-R drives) that make it relatively easy for individuals to create single copies of their own CD-ROMs at their personal computer workstations.

Despite the overall excellence of CD-ROM technology, there are some limitations. The first is amount of space - 650 MB is still not enough for a multimedia program with a lot of video, because video typically requires 1 MB for every 4 to 5 seconds, even in the compressed format. However a new form of CD-ROM technology called DVD (Digital Video Disc) addresses this limitation and has about seven times the capacity. An even

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more significant limitation exists because CD-ROM is a physical medium and requires physical delivery, so there are shipping costs associated with the use of CD-ROM, although much reduced from print. In addition when materials are revised, it is necessary to send an updated CD-ROM to people and try to get them to replace the old one with the new one (sometimes a difficult task).

The solution to the delivery problem is to use online networks for the dissemination of interactive multimedia materials instead of CD-ROM. The web can be used to deliver any form of multimedia program to any computer anywhere. However, many machines do not have fast enough network connections at present to make real time delivery of elaborate multimedia programs a realistic alternative to CD-ROMs. This is clearly a temporary limitation, and network delivery of interactive multimedia seems likely to become the mainstream form of dissemination, with CD-Rom being used for special circumstances where network access is not available or advisable.

CD-ROM is still the medium of choice, due mostly to its superior ability to handle video, audio and complex graphics. As for online training, less of it occurs on the Internet than on proprietary, internal networks - corporate intranets, extranets, local- and wide-area networks (LANs and WANs), etc. Training via those internal networks is most popular in the wholesale/retail trade sector and least common in manufacturing, where CD-ROM is heavily preferred.¹

Anderson Consulting, a worldwide consulting firm with more than 40,000 employees in 47 countries adopted the CD-ROM technology to deliver training to its employees worldwide. The first course to be converted to this form was a business practices course that consisted of 65 hours of instructor-led training. Annual enrollment in the course was 3,000 employees, and the audiences were expected to increase because of additional hiring. The course teaches basic business functions using a case study company; the leader’s goal is to conduct a business review of the company’s operations and make recommendations to improve the business and customer satisfaction. The resulting 40-hour multimedia program consists of 15 modules and is distributed on CD-ROM. It takes the form of a simulation and features video

¹ Industry Report 2000. How Training is Delivered
http://www.trainingsupersite.com/publications/magazines/training/footers trgfoot.htm

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segments for briefings and interviews with employees as well as working models of all the key functions in the company.

If you want your organization to reflect a just-in-time culture, CDs could be very beneficial. Imagine getting a sudden notice to prepare for a visit to a premier business school. In a minute you could pull out the CD on ‘Corporate image building’ and take a 20-minute refresher course on presentation skills. What works quicker than that!

Soft Skills Training on CBTs
Virtual learning is not restricted to technical programs. Soft skills can be learnt electronically too. And learning like this need not be pure work, it can be very enjoyable too. CBT for soft skills does not imply passively staring at lettering on a computer screen. Today’s virtual soft skills programs are more like video games! For instance if you take too long to respond to a virtual employee’s question in the Performance Review offering from Drake Beam Morin, the employee starts shuffling his feet and looking at his watch! If you say something inappropriate the same employee may even become belligerent and more difficult to manage!

Eileen Garger, Vice President of Product Development at Drake Beam Morin admits that such programs are no substitute to good instructor-led classroom-based programs, but asserts that they provide a viable alternative in today’s cost conscious employee-lean world of business. In one respect they may even be superior. Participants using CBTs can do a better job in role play exercises without the fear of exposing themselves or losing face at doing the wrong things in public – both of which can be stumbling blocks to the success of soft skills training program.

One company used a CD-ROM manual to impart soft skills like performance management, coaching and interviewing skills. The CD-ROM based training was supplemented with shared learning via teleconferencing, where managers discussed key learnings and asked for clarifications. Face-to-face role-play exercises were added for the human touch. The computer training served as a good starting point by providing standardized inputs for basic concepts.

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Hotel major ITT Sheraton is making a quantum jump in employee learning using CD-ROM technology. It has developed a training program on customer service and quality using 14 CD-ROMs. Accelerated learning techniques, animation, storytelling, interactive games and audio prompts add interest to the CDs. The company is finding that many advantages in the use of CD-ROM based training. Apart from consistency in course content, it successfully addresses issues like employee diversity, pertaining to varying education and skill levels, culture, language, job requirements and age. The other positive aspect is complete control of the learning process by employees. Plus, such self-guided training does not require physical presence of trainers. As a result, skilled human capital can be employed elsewhere.

5. B. 1. 2 Multimedia

Apart from the Internet and the web, one of the most exiting and important developments for technology-based learning is the emergence of interactive multimedia capabilities. Multimedia provides the capability to integrate information in digital form for any sensory modality and deliver it on a single computer system. Multimedia applications, commonly distributed on CD-ROMs, use any combination of text, graphics, audio, animation, and video. Multimedia technology has dramatically simplified the development process for all media and made it possible for anyone with the right hardware and software to develop multimedia presentations that can be run on inexpensive and commonly available personal computers.

Another critical element to multimedia technology is the interactive aspect. In the multimedia context, interactivity refers to the capability of the program to respond to user input and in doing so provide unique experiences. The simplest form of interactivity is the selection of items from a menu or a list of options. Users can decide what they want to see in a program, or when they are ready to go to another screen through their selections. Interactive multimedia enables the learner to control the training, including content sequence.

1 Benchmarking HR: Learning gets techno-savvy, Human Capital, April 2000, pp14-19.
Most programs involve "hot links" which are words/phrases or graphic icons which, when selected, connect you to new information—technically called hypertext. The connected information may be another screen or text (such as glossary or more detailed explanation), an illustration/photograph, or an audio/video clip. Such links increase the interactivity of a program because it becomes possible for the user to follow many unique paths through an information database.

It is also possible for interactive sequences to become specific feedback messages to responses made by the user. For example, the program could present a set of questions and then provide feedback messages based on what answers the user provides. In certain kinds of programs called coaches or wizards, the program actually creates a profile of the user and can display suggestions based on the specific sequence of actions or responses made by a given user. Another kind of interactivity is the sequence of actions that occur in a computer game or simulation - all determined by the responses of the user in a sequence of events and actions.

Probably the single most important impact of multimedia materials is increased motivation. By virtue of involving more than one sensory modality and requiring user responses, interactive multimedia programs capture more attention and create greater engagement on the part of the learners. Since getting a person's attention and keeping them interested in the material is one of the most basic aspects of learning, the capability of multimedia is critical, especially in the context of self-study or distance education settings where motivation to complete courses may be weak.

Another aspect of being able to present information in multiple modalities is that it accommodates a broader selection of individual learning preferences. It is well established that people vary in their cognitive styles, and some of these differences have to do with preferred sensory modes (e.g., aural vs. visual information). To the extent that an interactive multimedia program can present information in a wider range of modalities, it should be more appealing to a wider range of learners.

An additional potential benefit of multimedia is more realism. Photographs, audio/video clips make the content more concrete. A common complaint made by learners at all levels is that learning materials and activities are not sufficiently relevant or realistic. By making it easier to include audio visual elements in computer based materials, the chances are greater that the
content will be more "authentic". Furthermore, when simulation and case study methodologies are used, the degree of realism of the program increases even more.

Multimedia also facilitates the creation of multilingual materials because text captions or audio tracks with alternate languages can be added relatively easily. It is also possible to have video segments with speakers of different nationalities explaining or presenting information—not only dealing with the language issue, but also addressing credibility for a given audience. In light of the increasingly global nature of organizations as well as the increased diversity of populations in most nations, the capability to develop multilingual learning materials cost-effectively is a significant advantage.

Interactive multimedia implies two very important capabilities:

1) To be able to present information in multiple modalities and
2) To allow the user to control the interaction to varying degrees depending on the nature of the program.

To the extent that all forms of learning are enhanced by involving multiple modalities and by having interaction (responses and feedback), interactive multimedia has obvious significance to workplace learning.

The benefits of multimedia for learning can be summarized as:
- Increased motivation
- Appeal to different learning styles
- More realism
- Facilitates multilingual presentations
- Higher retention
- Better comprehension
- Improved transfer of skills

There are a variety of learning environments for which interactive multimedia can be applied. The first is the individualized delivery, in which learners interact with the program alone, usually in some kind of learning center environment, although it could be in their offices or homes. This results in all the benefits of individualized instruction: the learners establish their own pace and determine what content is to be presented, they are able to evaluate their progress through feedback.

Interactive multimedia is being used increasingly in group settings, especially in conventional classrooms. In this setting, an instructor or
manager will use multimedia materials to deliver a more effective presentation and still be able to take advantage of the group dynamics and face-to-face interaction with the learners. Many universities and organizations have created electronic classrooms to take advantage of multimedia and computing technology. These classrooms feature some kind of large screen video projector or LCD tablet connected to a personal computer workstation for the instructor. This permits the instructor to run multimedia programs that the entire class can see and participate in. A further step is to equip each student with a workstation that is networked with others via a LAN, including the instructor’s machine. This allows trainees to share information and data, and also lets the instructor send information to any or all trainees, or see individual screens it’s also possible for the instructor’s workstation to be linked to networks or set up for digital videoconferencing, which provides for additional kinds of material or interaction from external sources.

Another learning setting where the multimedia is used is the EPSS. In this context interactive multimedia is used to show video demonstrations of how to perform a task, or provide a visual troubleshooting/installation guide with illustrations, photographs, and animations. And finally, many organizations have experimented with the electronic delivery of information in public locations like office lobbies, libraries, through the kiosks. The multimedia capabilities are used here to present information on company policies, employee services, training information like available courses and registration for the courses.

![Multimedia learning environments diagram](image)

**Figure: 5.B.1** Multimedia learning environments
5.B.2 E-Learning

The new paradigm in learning is called e-learning. With the proliferation of the Internet and intranet, learning through the net gets a new name “e-learning” in conformity with e-Commerce and e-Business. Elliot Masie of the Masie Centre says that, “e-learning is the use of network technology to design, deliver, select, administer, and extend learning.” The scenario and infrastructure created by the Internet and intranet has brought the concept of “bringing learning to people instead of bringing people to learning”. The Internet and intranet are revolutions that are changing the face of training and learning. Using a PC, a modem and web browser, it is possible to log on, click and learn. Corporations are waking up to web-based training.

E-learning is the extension of the classroom. With traditional CBT, the trainee doesn’t necessarily have the opportunity to interact with other trainees, or a tutor. With the evolution of e-learning this now comes into play. Students can discuss topics with other students through discussion forums, and chat rooms. In addition there are huge number of resources from people who have expert knowledge in different areas. The difference between the two modes is that CBT is self-study training on your PC, and e-learning extends this experience with the addition of student communities, and the resources available on the internet. E-learning today, is the latest buzzword of the training industry and with the internet as the medium, today’s training is not confined to mere classroom sessions. What web based learning offers is a “global classroom” wherein knowledge can be shared across geographical, cultural and psychological boundaries.

There are two kinds of e-learning. The first one, synchronous e-learning refers to the use of technologies such as virtual classrooms, audio-video conferencing and internet telephony. Synchronous e-learning is facilitator led and in real time.

In the second type, asynchronous e-learning, the learning event does not happen in real time, it is self-paced. The interaction between facilitator and learners are spread out through mediums like CD-ROMs, e-mail, streamed

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1. www.masie.com
audio-video, web-presentations, Q&A sessions, mentoring, online chats and discussion groups.

As Laura Overton points out: "E-learning is so much broader than previous training technologies. It's our view that the 'e' in e-learning is the enabling of learning using technology".1 If predictions are accurate there will be 2.5 million North Americans using online learning by 2002. Many of these people will be known as free agent learners. It's already started. Today, somewhere west of the Atlantic Ocean and East of the Pacific, before breakfast Jean is taking an online class in programming, business skills, telecommunications or conflict management. During the lunch break Tracy is studying for an online business degree programs. And after the kids are nestled in their beds, Pat is learning how to design Web pages. Daylong learning. Lifelong learning. Come-as-you-are learning. The framework for these learning activities is online learning supported by the World Wide Web. Learn what you want, when you want it.2

5.B.2.1 The Internet

The Internet, started by the U.S. Government, is a loose confederation of computer networks around the world that are connected through several primary networks. Larger organizations and many small organizations have developed intranets, any network contained within a single organization. The Internet and local intranets provide access to an enormous array of information and the ability to communicate via electronic mail (e-mail). With the remarkable growth of the World Wide Web, a graphical interface, the information contained on the Internet has become even more accessible.

The Internet can bring training—enhanced by other media such as videos, animation and audio to a widely dispersed audience3. Internet-delivered courses are available by e-mail, on-line and real-time conferencing. In addition, trainees can download courses from the Net. Classes range in sophistication from a simple, text-based, question-and-response format to an elaborate format, with multimedia presentations, hypermedia links, and live videoconferencing. The web provides access to thousands of on-line

1 Shepherd, Clive, “Ten quick wins in e-learning”, www.fastrack-consulting.co.uk
2 Brooke Broadbent, Using the Internet Smarter and Faster
magazines (ezines), newsletters, discussion groups, and entertainment sites that can broaden the users’ intellectual horizons. It goes a long way in breaking down geographical, socioeconomic, cultural, gender, and age related barriers towards accessing information and interacting with others.

Web-based courses through distance learning are purely virtual. An employee can simply connect to the Internet, study the syllabus options available, and enroll for the course electronically. He can then receive all coursework on-line, and even take tests and advance to the next level, from the comfort of his bedroom. He could be living in Singapore, Sydney, Switzerland or Simla, but that hardly interferes with his progress.

Corporations have been somewhat slower to adopt and explore the web for learning. This is partly because, unlike academic settings, there is no tradition of Internet access, more limited availability of computers, and a concern about the confidential/proprietary nature of training materials. On the other hand, almost every corporation and business has a web site now – used primarily for marketing and product information. The percentage of employees with access to a computer in their workplace increases each year. Internal versions of the web (intranets), as well as external links to the Internet, are present or being developed in most organizations. So there is every reason to expect that the explosive growth of the web seen in the educational domain will be duplicated in the corporate world in the next few years. In addition to the corporate sites offering information related to their products or services, a number of “virtual” training providers have appeared and are providing web-based courses, especially in the computer and technology domain.

On the other hand it should be acknowledged that many professional societies, like the ASTD (American Society for Training & Development) and the SHRM (Society for Human Resource Management), have been fairly quick to put their publications and conference proceedings up on the web. To the extent that a significant amount of continuing education takes place through these organizations, we can say that the professional sector is taking advantage of the web for personal learning activities. In addition many people are involved in taking courses for higher education, like MBA, from Universities through the web. While the web may not be in formal use by many training departments at present, a large percentage of working individuals are already in web-based learning.
5.B.2.2 Intranet

A general term describing any network contained with an organization; used to refer primarily to networks that use Internet technology. It can be described as a mini-internet, dedicated to a single organization and providing employees with all the benefits of the web in their workplace. As intranets run over companies’ networks, rather than through a dial up connection, they should be able to provide smoother and faster access to information than a home user would expect on the Internet.

The single interface for an intranet is a web browser like Microsoft Internet Explorer or Netscape Navigator. This seemingly simple software application provides employees with access to a significant proportion of their working tools: news, reference materials, documents, workflow applications, company databases and bespoke systems, discussions forums and training.

Benefits

As you evaluate your options for training on a corporate Intranet site, here are some benefits to consider:¹

➢ **Consistency**: With an Intranet, the same training materials can be viewed by any employee. As a result, you needn’t worry about several copies of outdated information circulating around the office, as may be the case with print-based communication.

➢ **Pull vs. push approach**: Too often, we provide employees with more information than they can possibly process or retain. An 80-page training manual that we push to employees may be viewed with dread. However, Intranets allow you to provide access to as little or as much information as employees wish to pull onto their desktops.

➢ **Interactivity**: The emergence of Web development tools, such as Java™ and Shockwave™ have brought a greater degree of life to Web sites. Even with basic HTML (Hypertext Markup Language), you can create discussion groups, comprehension tests and other two-way communication tools for integration into your training materials.

 Ease and low cost for updates: Many of you may have experienced the frustration of creating a high-quality print publication, only to have a sudden change by management render the piece obsolete. With an Intranet site, you can easily and inexpensively update online publications and training materials—and you can do so as frequently as needed.

 User-friendly interface: Intranet applications typically use an interface that’s conducive to point-and-click navigation. If employees can easily get to the information they seek, they’re much more likely to look for that information.

 Centralization: With an Intranet, employees can access information from a central database at any time, and in any number of geographical locations. Self-training can be completed at home, in the office or on the road.

 Simplicity in creation and maintenance: Unless your needs are elaborate, Intranet sites can be created and maintained with a minimum of programming expertise. Once the basic shell is in place, support staff in your department can easily make most updates to information.

 Keeping up with your workforce: As more and more younger employees enter the workforce, keeping up with technology will become increasingly important. Employees will be less willing to receive training information through slides or print because they’re used to being intellectually stimulated through electronic media.

 Flexibility: An Intranet can be an ongoing work in progress. Of course, you must start with a meaningful foundation or employees will lose interest. But once you have a site in place, you can keep building a library of training and reference materials that will increase in value as it evolves.

 Potential: As the evolution of Intranet sites continues, more and more features will emerge that expand its functionality. For example, real-time training that combines a live mediator, online information and several remote attendees, will soon be practical.

 The training department has as much to gain from the intranet as any service department, probably more. Not only does the intranet provide them with the perfect mechanism for communicating with their customers, it also provides a means for delivering the service itself. The work of the training department
could not only be made more efficient with an intranet, but significantly more effective.

Here’s an overview of what the intranet could do to lead training into the 21st century:

➢ Supply every one of your customers with information about the training provided within the organization, including dates and availability of places. British Airways has produced an on-line training catalogue that brings together all of the 1000+ courses run by their many training departments, searchable according to a wide range of criteria and soon to be integrated with their training administration system. As a result, BA anticipates less duplication of effort on the supply side, a less confused audience and a closer match of needs with resources.

➢ Allow much training administration to be performed automatically.

➢ Allow you to survey your customers on-line, including needs analysis and evaluation.

➢ Provide a means to deliver computer-based training to the desktop. The primary activity of any training department is the delivery of training. Any method which is capable of producing better results for the same price or the same results at a cost saving is likely, therefore, to be of interest. Not surprising, then, that in a recent survey by the Masie Centre, 82% of large corporations stated that they were in the process of developing an on-line learning strategy or pilot- with an initial focus on IT training. With a full range of interactive capabilities, an intranet is capable of delivering a reasonable standard of CBT and therefore inherits the benefits of that medium:

■ Self-pacing
■ Flexible timing
■ Reduced time to train
■ No travel time or costs
■ Greater retention

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1 Shepherd, Clive, “Why training needs the intranet”, http://www.fastrak-consulting.co.uk/tactix
2 http://www.Masie.com
On top of these, there are some extra benefits to be obtained by delivering CBT over an intranet:

- The training can be delivered just-in-time
- The training materials can easily be updated centrally
- The training can be fitted around normal work tasks

➢ Allow users to form learning communities to provide each other with support. We are, of course, social animals and receive a great deal of benefit through interaction with other learners, subject matter experts and facilitators. Although it may seem an impersonal tool, intranet can do much more than deliver information from a centralized source – it can provide a means for learners to collaborate with one another and get support from the experts.

➢ Provide managers with on-line access to your training records.

Intranet training modules can be developed or acquired piecemeal and use a variety of interfaces and techniques. It is also possible to integrate a large number of modules within a complete training delivery system that manages curricula and maintains trainee records. Examples of systems like this are British Telecom’s Campus Professional (www.bt.com) and Epic Group’s 20/20 Training (www.epic.co.uk). The latter also uses intelligent screen savers to reinforce key learning points. DDI’s OPAL system (www.ddiworld.com) presents everything from quick tips to detailed explanations for all sorts of interpersonal skills situations, backed up by assessment and competency management tools.

*Learning Communities*

Imagine a web site on your intranet dedicated to the needs of those people in your organization going through a major training program. The web site brings together a ‘learning community’ providing a wealth of facilities:

- Information about the course
- A directory containing details of who’s on the course
- News – dates, completions, changes, etc.
- On-line training modules
- Papers submitted by subject matter experts or trainees for review
- Discussion forums where topics from the course can be debated
- E-mail links to subject matter experts
- Links to related World Wide Web sites
- Book lists
- Feedback surveys
- Assessments

A software development group of an international information services company, having six locations in the United States and the United Kingdom has set up a training website for its managers, called the Management University on its intranet.¹ The site features three main sections: the Resource Center, the Management Forum, and the Executive Perspective.

Resource Center: This section has three elements. One, the Virtual Library that offers a selection of books, articles, videos and CD-ROMs on management topics. A second element is the Manager’s Toolkit, which consists of searchable cases, topics, and issues. Managers can access it as the need arises. The third element is called the Monthly Capsules, which are archived case studies distributed previously to the managers.

Management Forum: The Management Forum is a message board for managers to post questions on difficult management situations and get answers from people who have resolved similar problems.

Executive Perspective: This section offers an electronic way for senior executives to communicate with their managers. It also features archived interviews on management skills and specific, current issues of interest to the group. This section is also used for general communication, to convey personal views, and to enable managers to get to know senior-level executives.

5.B.2.3 How do Internet and Intranets differ?

There are a number of key factors that distinguish Intranets from the Internet, and these affect their use for training:

Intranets are generally faster and more secure than the Internet—which in principle enables you to offer more multimedia features over an Intranet.

Intranets are more under the control of one organization, so there is greater potential for standardizing browser and other software, and ensuring that all users have similar technical access.

There are also major differences in the ‘business models’ that providers use for charging for TBT on the Internet and Intranets. This affects what you pay for the training. In crude terms, the main differences are:

- Intranet: you buy a ‘product’ from a publisher and take responsibility for delivering the course(s) yourself
- Internet: you buy a course from an institution, including materials and often also tutor support.

5.2.4 Other Networks

Local area network (LAN): A network of computers sharing the resources of a single processor or server within a relatively small geographic.

A WAN (wide area network) is similar to a LAN except it is a network of computers that share the resources of one or more servers over a relatively large geographic area.

Extranet: A collaborative network that uses Internet technology to link organizations with their suppliers, customers, or other organizations that share common goals or information.

Many organizations already have a Local Area Network allowing people to communicate with each other via electronic mail, to have access to common software programs such as a customer database, or to transfer computer files to each other. The network becomes an Intranet if it uses ‘browser’ software, identical to that used on the Internet.

Most academic institutions and a growing number of corporate training centers have computer labs in which all the machines are linked to a LAN.
server. This makes it possible to share use of programs and control access/software privacy. Furthermore, LANs make it possible to implement groupware and tools such as Lotus Notes, Microsoft Exchange, Net meeting. While such programs can run on any network, in order to obtain immediate response time required, as well as ensure confidentiality of the data, a LAN is preferred. This is also true of programs that are very processing intense, such as CAD/CAM, multimedia authoring systems, or mathematical modeling software. LANs are also fundamental to the electronic classrooms.

From an HRD perspective, WANs and LANs have very significant impact that needs to be assessed and planned for. The transformation caused by networking affects learning in a very broad and profound way. For one thing it places attention on sharing resources and expertise. Since it is now much easier to share ideas, experiences, and information, networks encourage collaboration and cooperation among employees. So the new form of learning in the networked organization is heavily dependent on electronic interaction via e-mail, conferencing, web sites, etc. such interaction tends to be more informal and unstructured relative to traditional means of training courses and materials.

The implications of networking for learning are even broader. Interacting with other people via electronic networks tends to break down all boundaries: geography, time socio-economic, cultural, age and organizational. Individuals will seek out others with shared interests or common goals regardless of factors that would traditionally keep them apart or out of touch. This is the profound power of “cyberspace” or the “virtual community” that networks make possible. This means that employees can and will interact electronically with anyone in their organization as well as other organizations (perhaps even competitors).

So networks mean that learning is no longer encapsulated by artificial limitations such as classrooms, curricula, and organizational/institutional delimitations. Individuals will use networks to find other people and information sources that address their specific needs and interests. All organizations need to recognize this new circumstance and do what they can to enable their staff, students, or members to be as proficient as possible in the use of networks.
5.B.2.5 Applications of e-learning

There are a number of business applications ideally suited for e-learning:¹

- Sales and distribution channel training: product features/benefits, solutions and selling techniques.
- Customer service: problem prevention/resolution using product specific configuration, diagnostic and trouble shooting procedures
- Quality and re-engineering: Measurement practices/reporting, product regulatory compliance policies/practices and process improvements.
- Manufacturing or engineering process: process training/certification for internal or outsourced production and procurement
- Health and safety training: Compliance with site/time-specific company policies and practices for health, safety, and environmental regulations.
- Certification of business partners: Process for collecting and reporting certification of authorized resellers, distributors or suppliers to document consistent compliance with company policies and regulatory mandates.
- Change management process training: Communicate common objectives and execution approach; report on progress and corrective activities, management skills/style consistent with company policies.

5.B.2.6 What benefits are there?

These include:

- Learners can learn at their desk, at their own pace and leisure. Learning through he web can be very convenient for employees. There are no fixed schedules or limitations of time. One can attend the course at home, in the evening, while traveling to work. What’s more they don’t have to juggle themselves according to the trainer’s availability. They can take a coffee break any time, attend an urgent meeting, prepare the weekly report or drive their child to school, in between sessions. Life was never so easy in a conventional training program.

● With online chat facility, as part of the package, he can even interact with the faculty concerned regarding his doubts. This is where the e-learning scores over the CBT using CDs. In a classroom trainees might feel intimidated to ask questions, even if they are not clear about the concept. Thus, they leave the classroom with misgivings and knowledge gaps. Whereas in an online class, the learner may ask as many questions as he wants, because of the total absence of an intimidating atmosphere.

● Instant access to training (sometimes referred to as ‘just-in-time training’)

● Learners can access the latest versions of training materials as soon as they are available (there is no ‘distribution lag’ as with CD-ROM or other media)

● Higher retention of content: technology based solutions allow more room for individual differences in learning styles. People can learn at their own pace and have more control over their learning process and can better understand the material, leading to a 60 percent faster learning curve, compared to instructor led training. Moreover, the retention rate is enhanced by 25-60 percent, as a compared to instructor-led training.¹

● Learner can go back to that place, which he did not grasp, as many times as possible. Moreover the process of focusing on one concept at a time; its different applications along with the testing of the learner’s grasp of the concept and its application before moving on to the next concept, is instrumental in improving retention.

Thus the e-learning process goes into a repetitive mode whenever the learner stops learning. The testing of understanding of concepts before moving on to the next along with an increase in the complexity of testing at each subsequent test ensures continual assessment and feedback to the learner.

- The ability of the e-learning process to provide uniform quality to all learners enables an overall better level of learning at the group level.

- The current e-learning software enables the combination of voice along with concept presentation and testing. In addition to this, the availability of chat rooms, Net meeting software, internet telephony, videoconferencing, enhances the entire learning experience by facilitating direct interaction between the program conductor and the learner on one hand, and also among the learner community at the other.

- E-learning transcends boundaries with ease. With the Internet spreading like wildfire, what was seemingly impossible in the field of e-learning is becoming possible now. The phenomenon of ‘any skill, any level, anywhere on earth’, is visible on the horizon.

- Training activity and outcomes can be measured accurately, without the need for hundreds of paper-based questionnaires.

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Learners can access training from almost anywhere, especially if they have a portable PC and modem to go on-line.

Learner progress can be tracked and evaluated as the basis for feedback costs of training are tracked and more easily assessed.

In most cases there is the potential for cost savings, in comparison with face-to-face events. However, it is unwise to assume that tutor support costs will diminish radically, as many on-line learners still need tutoring and mentoring to learn effectively.

Next to instructor-led training, WBT is poised to become the largest delivery vehicle for corporate training and will soon enter the mainstream of training business activity. The report by Online Learning magazine shows the proportion of training delivered by e-learning rising from 16% in 2000 to 24% this year (largely at the expense of instructor-led courses). Eduventures.com estimates the size of the US corporate e-learning industry to be around $1.4 billion and is still predicting 20-40% annual growth to reach $4 billion by 2005.

And could it be that even the terrible events of September 11th could focus positive attention on e-learning? “The disaster is already affecting the way in which companies address training. Many organizations are seeking to minimize the amount of traveling by staff and are trying to avoid too many senior people being in the same place at the same time. It’s changing attitudes. For example, we have been working with a major office automation equipment supplier, providing instructor-led training for many years. Since September 11, they are talking about rolling out e-learning as an alternative method of training”.

The future of training is very clear – Internet based training. This offers many advantages like, one can go through the training program at their convenience and from their homes or from their offices, etc. Imagine a situation, wherein an executive is waiting at an airport for his flight, which is delayed. He can make use of his time by logging in to some virtual university and go through a training program. This will become a reality very soon.

1 Talking turkey - new directions for e-learning in 2002 by Clive Shepherd
5.B.3 Virtual Reality

A computer application that provides an interactive, immersive, and threedimensional learning experience through fully functional, realistic models. Virtual reality (VR) systems use various combinations of computer technology to create a real or abstract virtual space. VR is of interest to education and training because it makes it possible to develop highly flexible learning environments; in some circumstances these offer advantages over training in the ‘real world’.

The technology of Virtual reality systems are characterized by two essential features:

- they give 3D real time representation of a real or abstract space. These spaces are sometimes called virtual or artificial environments or spaces. On more advanced VR systems these virtual worlds can be shared with other users
- the world generated by the computer reacts to the actions of the user.

Ideally virtual reality would look and behave just like reality, but because of technical limitations this is not possible at present.

There are three main ‘types’ of virtual reality technology, separated principally by the way that they display the virtual world:

- Flat-screen VR – the most common and the cheapest way of building and using virtual environments. These kinds of virtual spaces can be viewed on a basic stand-alone PC, or over the World Wide Web using a computer language called Virtual Reality Modeling Language (VRML). Flat-screen virtual reality is not usually 3D, but there are some systems that use special 3D glasses to trick the viewer’s eyes into seeing the virtual environment in three dimensions.

- Immersive VR – the popular concept of virtual reality, immersive VR requires the user to wear a combination of a head-mounted display (which displays the images stereoscopically) and an input device such as a data glove (which allows a computer user to ‘handle’ objects in the VR). A major disadvantage is that head-mounted display devices are expensive, heavy, unreliable and not suitable for all users; they are known to induce headaches and nausea in some people.
- Projection VR – the image is projected onto a large screen; it is not 3D but is usually wide enough to fill the user’s field of view. This is also quite an expensive technology, because it requires special projection equipment. Virtual environments may be individual experiences or two or more users may share the same space. Projects like VR-vibe at Nottingham University are exploring the potential of ‘Networked’ VR.

Training and education are seen by many to be one of the principal application areas for virtual reality. There are a number of advantages associated with virtual training:

➤ Complex tasks can be separated into their component parts, allowing the learners to tackle each one in turn. For example, as part of driver training, steering sensitivity might be reduced, to allow the learner to concentrate on clutch control, thus reducing the ‘cognitive load’ on the learner

➤ Dangerous or expensive training exercises can be conducted in virtual reality, removing any risk and reducing costs. Typical applications include pilot training and training in the handling of dangerous waste

➤ Training in virtual reality is in context. Learners can receive training in an environment that will be similar to their actual place of work. This ‘situated learning’ is more realistic and concrete and therefore aids the training process.

➤ The system can monitor learner behavior closely, supplying the trainer with very detailed data. This can help the trainer to understand precisely what the learners are doing while they are performing a particular task.

5.B.4 Videoconferencing

The instantaneous exchange of audio, video, or text between two or more individuals or groups at two or more locations. Many organizations have used satellite video-conferencing for their training needs. With the greater bandwidth and the development of less expensive video and communication technologies, the exchange of audio and video between individuals or groups at multiple sites using the Internet and personal computers is becoming commonplace.
Video teleconferencing enables instructors to be televised live to multiple locations, using telephones, fax and computer lines. Trainees can also review the videotaped course as needed. VTC can be an effective and cost-effective alternative to instructor-led training. For example, some corporations use programs from the National Technological University, U.S.A., to train technical staff. Trainees attend class from a down linked classroom at the same time that the instructor’s class is being telecast from the host institution. Questions from students are usually delivered via telephone, but they may also be transmitted by computer or fax. Students who miss a class can view the videotape when it is convenient to them.

Two-way digital teleconferencing: 2DTC requires telecasting equipment at the trainees’ sites and the trainer’s site. Compressed video technology that produces a slightly jerky motion has greatly reduced the production costs. 2DTC permits a much larger degree of interaction than VTC. As advanced fiber-optic networks and improved compression techniques become widespread, this technology is likely to play a more significant training role. Strategic Education Services uses 2DTC to conduct management training for its clients overseas. A small group of trainees meets in a 2DTC classroom, while SES staff members meet in a similar classroom in northern Virginia. The course proceeds much as it would in a traditional classroom, with trainees raising questions whenever they like. Computer linked graphic illustrations augment the instructor-led presentations. Assignments and readings are usually delivered via fax or overnight messenger.

Videoconferencing is more than just a substitute for face-to-face meetings. Initially, the benefits emphasized are the savings on travel and time (both of which are highly significant), but videoconferencing can also add quality to transactions. For example, an international meeting can be planned, negotiated and prepared using videoconferencing, so that the attended meeting is far more informed, fluent and productive. Videoconferencing can also create wholly new services. Some current uses for videoconferencing are:

- Meetings, interviews and consultations

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- Mentoring: for example, where someone in training requires real ‘point of need’ recourse to advice and support. This could involve observation by a third person(s), using multipoint conferencing
- Assessment and verification procedures: for example, work-based assessment, costly and often in need of real quality input, can be managed remotely, at least in part
- Training and ‘master classes’: for example, accessing the input of an expert who can contribute to the training venue while remaining at his/her own location.
- Provision of ‘third party services’: for example, an interpreter could be brought in to translate between point-to-point locations using multipoint conferencing
- Virtual visiting and cultural exchange: for example, a business executive wishing to practice a foreign language for business and also get some engagement with cultural issues can ‘visit’ the foreign country
- Virtual trade fairs: a supplier can display, discuss and negotiate their product or service with potential buyers on-line.

Consulting giant Arthur Andersen uses videoconferencing to immediately bring its flock of tax consultants up to date on changing IRS regulations. Management Recruiters International is known for its consistent use of videoconferencing to update field offices in industry recruiting trends. MCI uses its own videoconferencing technology to deliver new product training information/best practices sharing and sales training to more than 80 branches nationwide. The use of videoconferencing for international communication is growing, reflecting a more globalized economy.
5.B.5 Satellite TV

The transmission of television signals via satellites. Texas Instruments has been using satellite-based training for a long time.\(^1\) The company’s satellite broadcasts link employees all over the world, including Germany, Italy, France, England, Japan and India. Most satellite training revolves around signal processor and semiconductor chip product development. Executive briefings and marketing reports for new products are sent by satellite to target audiences, followed by training in how to use and sell the features. Courses on computer programming and operator skills are also transmitted via satellite.

Boeing delivers interactive training to its 22,000 managers globally through a communications service that uses satellite broadcast technology\(^2\). The result is low-cost broadcast video, data and audio training. One application of the service was a short strategic planning skills course for employees in Boeing offices in U.S., Japan, Australia and Western Europe. Course participants viewed the workshop on monitors in corporate conference rooms as well as on large screen video projection equipment in auditoriums. The online training was supplemented with small group work with a site facilitator, presentations via satellite from Boeing experts, workbook exercises and audio interaction with course instructors. Boeing has reported savings of $9 million in travel costs alone. Learners have showed increased knowledge retention. Positive response is proved by students regularly applying for courses.

Westcott Communications of Carrollton, Texas, launched the Executive Education Network (EXEN), in 1995\(^3\). EXEN offers courses from the top business schools in the country. Through the network, organizations now have access to courses from business schools such as the Wharton School of the University of Pennsylvania, Carnegie Mellon University, the Aspen Institute of Humanistic Studies and the Kenan-Flagler Business School of the University of North Carolina. The courses are held live and interactive via the EXEN satellite hookups.

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\(^1\) Benchmarking HR: Learning gets techno-savvy, *Human Capital*, April 2000., pp14-19
\(^2\) Ibid
5.B.6 EPSS

In the ground-breaking book Electronic Performance Support Systems published in 1991, Gloria Gery, coined the term and defined EPSS as:

"an integrated electronic environment that is available to and easily accessible by each employee and is structured to provide immediate, individualized on-line access to the full range of information, software, guidance, advice and assistance, data, images, tools, and assessment and monitoring systems to permit job performance with minimal support and intervention by others."

An electronic performance support system can also be described as any computer software program or component that improves employee performance by

1. reducing the complexity or number of steps required to perform a task,
2. providing the performance information an employee needs to perform a task, or
3. providing a decision support system that enables an employee to identify the action that is appropriate for a particular set of conditions.

Electronic performance support systems can help an organization to reduce the cost of the training staff while increasing the productivity and performance. It can empower an employee to perform tasks with a minimum amount of external intervention or training. By using this type of system an employee, especially a new employee, will not only be able to complete their work more quickly and accurately, but as a secondary benefit they will also learn more about their job and their employer's business. Gery said, "Performance support systems are at their simplest integrated knowledge. And at their best, they are new types of software applications that have the potential to generate ‘day one’ performance by people with limited knowledge or work experience while supporting expert performers in more flexible ways."

"An electronic performance support system delivers information online to the desktop which is specific to the user’s immediate need." 2 While regular training expects employees to learn everything ahead of time, an EPSS feeds

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2 Shepherd, C., “when training doesn’t work”, www.fastrack-consulting.co.uk
the necessary information to them in small bites, when and where they need it. Combining the power of on-the-job training, job aids, and access to company reference materials into one self-guiding interactive system, an EPSS directs users to the appropriate resources, helps them make proper decisions, and keeps them from making mistakes.

The EPSS delivers information on a just-in-time basis. You get the information when you need it in order to perform a task, not on a just-in-case basis, as you would with a typical training event. And to make the contrast with training even clearer, we are talking about information and not knowledge, understanding or skill. Information is for reference - you use it and, more often than not, you forget all about it. That’s not to say that, if you refer to information often enough, some of it will stick, in which case it becomes knowledge. And if you apply that knowledge often enough to your job, it could even become a skill. The objective of the EPSS is, by definition, to support performance, whether or not that requires learning. With training, the route to performance improvement is always through learning.

An EPSS is more than just online help. For a start, an EPSS is more likely to be task-specific than application-function specific. In other words, you learn how to send out invoices in your Company’s format, rather than how to format paragraphs. Secondly, an EPSS is often company-specific rather than generic – it deals with the specific policies and procedures of your organization.

AT&T has created electronic performance support systems to facilitate employees to manage information effectively at work¹. Information in all areas, whether standard operating procedures, or procedural decisions is available to employees at their desks. In one application, data on new product and customer training is fed directly to the desktop. Small modules with built-in exercises test employees’ knowledge of new features or effective responses to customers’ questions. Managers can then enhance customer service training needs as and when needed.

5.8.7 Learning Management System

The term ‘learning management system’ (LMS) embraces just about any use of web technology to plan, organize, implement and control aspects of the

¹ Benchmarking HR: Learning gets Techno-savvy, Human Capital, April 2000.
learning process.¹ An LMS can support the full range of everyday functions of the training department.

Assessment

An LMS can’t help to reduce the painstaking work required in defining competency frameworks across an organization. What it can do is record these in a systematic way, so that - later in the day - they can be used as the basis for curriculum planning and the analysis of training and developmental needs. An LMS can help you in doing this in a number of ways: by recording the competencies, qualifications and licenses that a person already holds; by listing the requirements of a person’s current job or a job that they aspire to; by enabling the person themselves, their manager, peers or subordinates to rate them against these requirements; by delivering online assessments linked to job requirements; by recording course completions that are linked to job requirements; by recording a person’s aspirations for their future career; by recording a profile of the user’s learning preferences in terms of method, locations and times. An LMS can help you by comparing an individual’s profile with that of their current job; by comparing an individual’s profile with that of a job to which they aspire (typically internal to an organization, but could be across a sector, say the IT industry); by identifying individuals best matched to a particular job’s requirements; by identifying the learning gap across all holders of a particular job.

Cataloguing resources

It can be extremely difficult for students to find the resources they need to meet their learning needs, whether this is inside an organization or externally. One of the simplest, yet most powerful functions of an LMS is to list all of the resources available. Pretty well any LMS is capable of listing online courses, but you may find it helpful to list all other available resources, including classroom events and offline media (CD-ROMs, books, workbooks, etc.).

LMSs that include competency management facilities will also include the capability to cross-reference learning resources to competencies. This means they can then automatically list those resources that address an identified gap.

¹Shepherd, Clive, “A day in the life of a learning management system”
Some systems act more as course-finders, providing access to the many 1000s of external courses in the market, face-to-face and online. Although these systems can be extremely useful, they are better categorized as learning portals or even learning procurement systems, rather than fully-fledged management systems.

Filtering resources
An LMS can help to narrow down the search for the right resources by acting as a filter: finding those face-to-face and real-time online events that match our time constraints; finding those face-to-face events that take place in suitable locations, e.g. the Bahamas; finding those events that have available spaces; finding resources that match our budget, from deluxe to cheapest possible; finding resources that match our preferences for method (classroom, self-study, etc.); finding those resources that have been reviewed favourably by previous students; finding those resources that are provided by an organization’s preferred suppliers.

Delivery
An LMS could support the delivery of learning offline: by providing automatic, online messaging to course participants, including the transmission of joining instructions and pre-work; by providing learners with collaborative tools, such as discussion forums and chat rooms; by managing inventory for items such as CD-ROMs, manuals and books. Of course you would expect an LMS to support the delivery of online learning resources and you wouldn’t be wrong. As a minimum, an LMS should be able to launch online, self-study materials, whether these are interactive lessons or simple Word, PDF and PowerPoint files. An LMS may also support collaboration between learners and tutors, through discussion forums and real-time, virtual classrooms.

Monitoring progress
It’s not difficult for an LMS to track who has registered for what learning and, if that learning is online, when and for how long they are logged on. To obtain much more information about online learning, such as test scores, requires data to be passed from the learning materials back to the LMS. For that to work smoothly requires an adherence to standards by both the LMS and the content providers.
Assessing results
How can an LMS help you to evaluate your training? Well, first of all it can measure usage - bums on seats. More importantly, it can measure completions - how many people are actually finishing courses. It can record reactions (you know, the happy sheets) and if your courses include online assessments, it can also provide some measure of the learning that’s been achieved.

Looking to the big picture, an LMS can make it much easier for you to keep a track of costs. And if it incorporates competency management facilities, you can plot how narrow that learning gap is becoming.

5.B.8 M-Learning

M-learning is not just electronic, it’s mobile. It’s e-learning for people who have learned the lesson that it’s hard to hit a moving target. Clark Quinn, director of cognitive systems at KnowledgePlanet, explains just what this really means: “M-learning is the intersection of mobile computing and e-learning, that includes anytime, anywhere resources; strong search capabilities; rich interaction; powerful support for effective learning; and performance-based assessment”. Quinn goes on: “It’s e-learning through mobile computational devices: Palms, Windows CE machines, even your digital cell phone”.¹

Conventional e-learning, delivered to a desktop computer, is leaving a large part of our audience out in the cold (literally). As Elliott Masie points out: “The assumption here is to dramatically expand the accessibility of learning beyond the physical footprint of the PC. If we remember that over 50% of the workforce does not sit at a desk, but instead is standing, walking or moving around a factory, we see the potential of breaking the tether of the Ethernet wire.” Mobile devices have been outselling PCs since 1977. According to Donald Clark, CEO of Epic Group: “They are becoming ubiquitous. There is barely a target audience that cannot be reached with these devices. In the UK alone the number of mobile phone users grew by 76% in the year to March 2000.” The mobile workforce is growing along with the power and proliferation of mobile devices. In fact, according to

¹ Shepherd, C., “M is for Maybe”, www.fastrack-consulting.co.uk
IDC, the population of mobile and remote access workers in the USA alone will grow to 55.4 million by 2004.

M-learning is designed to fit with the unique work-style requirements of the mobile workforce, linked to their office by cell phones, laptops and hand-held devices. This workforce spans a wide range of occupations: from sales to customer service, engineering, and maintenance, consulting and insurance - to name just a few. As so many of these jobs are customer facing, their importance is often paramount to an organization. Mobile workers need and deserve the latest information and the sharpest skills.

But is a nomadic lifestyle really conducive to the process of learning? mobile workers are big users of ‘non-places’: Non-places are air, rail and motorway routes including airports, railway stations, motorway stops and hotel -refuges, places where one can retreat into oneself and find privacy and solitude. In an age where time has to be managed, these places provide opportunities for reflection and learning. Non-places have a number of features that make them conducive to learning. You are alone. You are free from distractions. You are free from interruptions. You are free from the tyranny of meetings. These are good conditions for learning. But there is one condition that makes a non-place even better than a library - you have no escape. You cannot jump from the plane, train or car!

Global Knowledge developed the m-Learning Guide as a wireless tutorial, reference, and support tool that enables IT students or professionals to quickly and easily access course content whenever and wherever they need to. The Guide provides wireless access to the same material used for the company's instructor-led classes. Four learning modes are available: Fact Mode allows the user to read and review text; Search Mode finds specific data; the Q&A and Challenge Modes offer testing features for users to check their progress. Said Charles Dew, the company's director of distance learning. “Global Knowledge created the m-Learning Guide to provide students with a fast, convenient tool to reinforce the knowledge acquired through classroom instruction. As individuals work through more advanced courses, or begin an IT career once training is completed, they can continue to use the Guide as reference tool for quick access to data.”

[1] www.globalknowledge.co.uk
The widespread popularity of handheld PDAs encouraged Global Learning Systems (GLS) to design ways to use these devices to deliver training to a workforce continually on the move. Says Jim Marshall, the CEO: “Finally, with Learning to Go, we can offer true any time, any place learning.”¹ The product provides the ability to view text and simple graphics, record learner data and download content from a synchronized desktop PC or remotely, for those with wireless Internet access. The server has the ability to identify the type of PDA, build and download dynamic web pages uniquely suited to the learner’s device and upload learner data such as lessons completed and quiz scores for inclusion in a database.

There’s no doubt that m-learning can make a contribution in providing information, most likely in the form of simple text and graphics, but with the additional benefit of sound on mobile phones. The provision of information will, in many cases, be the primary use of m-learning, but it does not need to end there. The interactive capabilities of mobile devices provide considerable scope for more practical learning activities.

¹ [www.globallearningsystems.com](http://www.globallearningsystems.com)
Technology-based training (TBT) has been available for a number of years in various forms and is growing in popularity. Most training professionals now accept it as a credible form of training delivery, which has both advantages and disadvantages when compared with ‘traditional’ tutor-led training events (group or individual).

Technology will not completely replace the traditional forms of training, such as live sessions with instructors. The one-to-one contact in live sessions is much to valuable and deeply ingrained into the way people learn. Training the future workforce means using a combination of high-tech and low-tech options. Also, no one particular technology, such as videoconferencing, interactive television, multimedia, CD-ROMs or the Internet, will dominate the training market. The smart and competitive employer will use all options available and devise a system that best suits its needs.

Up to now, the vast majority of organizations have invested in TBT for one of the following reasons:

- as a replacement for a tutor-led course, usually on grounds of cost-effectiveness
- as an alternative for staff who would have difficulty, for a variety of reasons, attending a course held away from their work location.

Because TBT and tutor-led training delivery have different attributes, it follows that an approach, which combines the two, should generate the creation of a more complete training event. Few organizations, however, have experimented with such a combined approach to date, seeing TBT and tutor-led training as separate entities. Nevertheless, more and more training professionals are recognizing the benefits which a combined approach could bring.

5.B.9 Blended Learning

Blended learning is a concept that has emerged with the onset of e-learning\(^1\). Such learning combines more traditional methods of teaching, such as instructor-led classes held in a physical classroom, with Internet delivered content that is learner-driven and self-paced.

\(^1\) Voci, Elaine, Blended learning: the best of both worlds.
Blended learning is balanced learning. This balance is achieved by combining the advantages of the two learning modalities. Blended learning captures the best of both worlds by allowing learners to pick and choose how they want to learn and afford them greater flexibility and convenience about when they want to learn. The old adage about “when the student is ready, the teacher will appear”, has taken on a whole new level of meaning with the aid of technology.

When considering a blended approach, it is helpful to think about the advantages of traditional methods such as stand-up classroom instruction, along with those advantages that come with content delivered over the Web. Here are a few of the most obvious advantages of classroom instruction:

1. It provides the social interaction that human beings need and enjoy by affording a direct exchange of ideas; since the beginning of time when cavemen first shared knowledge by drawing on cave walls for one another, human beings have benefited by sharing experiences with one another.

2. It offers a familiar and comfortable method that learners are used to; from an early age, generations have associated learning with a teacher in front of a classroom filled with fellow students and group activities such as discussions, team presentations, book studies, etc. It is a model that is well established within the greater social context of society and one that has dominated public education up until the last ten years.

3. It creates an interactive learning environment in which learners can test their own attitudes, choices, and reactions against those of their peers and an authority figure to receive immediate personal feedback about the appropriateness and acceptance of these responses. In short, the traditional classroom is a "social boot camp" in which cultural mores and values are reinforced in order to produce good citizenship skills.

Now consider the major advantages of web-based, self-paced learning:

1. It respects differences in learning styles and pace. Unlike the “one size fits all” that often accompanies traditional classroom instruction, self-paced learning allows learners to work through subjects as quickly or as slowly as they choose, to repeat topics until they are grasped fully, and to skip over areas that have already been mastered. Free of the pressure of other learners’
impatience, for example, learners can review and retest a content area until they are comfortable with it.

2. Self-paced learning affords the highest levels of flexibility and convenience for learners because the virtual classroom is open 24 hours a day, seven days a week. There are no waiting lists to contend with, no need to postpone learning until a class is offered, and no time gap between when learners are highly motivated to learn and when learning takes place.

3. Web-based content is consistent in a way that human instruction can never be. Such content has been created, tested, and validated and is not impacted by whether or not the instructor got enough sleep the night before, is fighting a cold or happens to be forgetful. Web-based content is the same over time, thus ensuring that the same key principles are emphasized, for example, regardless of where or when learners access the material. It is akin to having a superb Master Teacher in front of the classroom that is capable of offering the best instruction while being free of human frailties.

Blended learning can capture the best of both worlds for learners and organizations alike. It can be a remarkably effective means by which to achieve organizational goals without adding staff, capital investment, or burden existing staff with further responsibilities. The blended learning approach respects learner differences in style, yet also provides the much-needed social interaction that human beings seek and enjoy. It also offers a more cost-effective method of instruction that is of equal or higher instructional value to learners, many of whom are seeking certification in specialized areas, such as project management.

As former Citibank CEO Walter Wriston observes, “The person who figures out how to harness the collective genius of the people in his or her organization is going to blow the competition away!” Blended learning is one of the tools that technology has made available to training managers, and CEOs that can help make that observation real.