# Professional Practice in Training and Development

A Comprehensive Guide to the
QQI Level 6 Training and Development
Special Purpose Award

**Authors:**
**Pat Costine, Sinead Marron,**
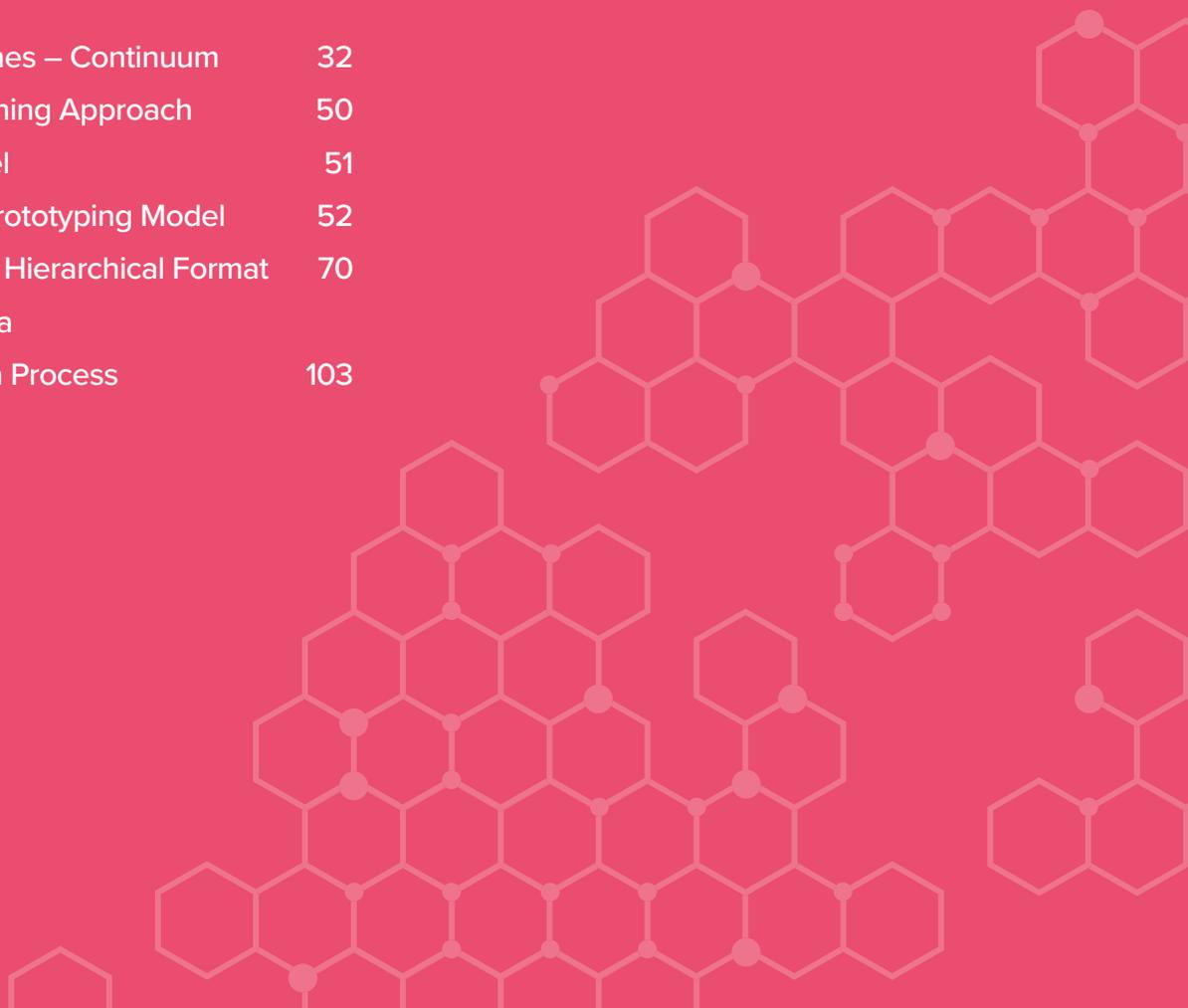**June Costine, and Pamela Skerritt**

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# PREFACE

The Learning & Development Institute (L&DI) is the professional body representing members involved in or concerned with human resource training and development in Ireland. From the early years of its existence, a critical part of the Institute's mission has been the provision of professional education in training and development. This has formed a basis for members' certification in a way that enhances continuing professional development and thus their employment opportunities.

L&DI's foundation programme "Professional Practice Certificate in Training and Development", dovetails with the QQI Level 6 Training and Development Special Purpose Award. The main purpose of this text is to provide the core source material and to act as an essential guide for those undertaking a programme leading to this and equivalent awards. It is also a useful practical reference for all those engaged with, or holding an interest in, the area of training and development.

This text was originally published in 2014 with subsequent updates in 2018 and 2024.

The first two chapters set out the background and context of T & D in a general sense and in an organisational context. Chapter Three identifies several key contributors to the field of adult learning, and outlines related philosophical approaches and theories. The systematic approach to training is introduced in Chapter Four, before a range of instructional systems design models and approaches are reviewed. The process of training needs identification and analysis is discussed in Chapter Five, where a series of practical steps for undertaking a training needs analysis (TNA) is subsequently presented. Chapter Six examines various levels and essential elements of training plans. All areas and issues surrounding training design are comprehensively covered in Chapter Seven, which

also includes an up-to-date review of technology-based training and learning. Factors associated with the role and competences of the trainer are addressed in Chapter Eight. The following two chapters present guidelines around preparing for training and for its effective delivery. Chapter Eleven identifies purposes and types of learning assessment, before outlining a range of assessment methods. The final chapter undertakes a review of training evaluation models and approaches, including a thorough guide to utilising an evaluation model, before presenting a process for developing improvement opportunities and plans.

This text was commissioned by L&DI with the intention of incorporating all the essential elements involved in the systematic approach to T & D in organisations, feature a user-friendly style in its coverage of theories, concepts and models, and present useful suggestions and ideas for their practical application. The completed work meets all our expectations, and we are pleased to endorse it as an L&DI publication.

**Sinead Heneghan**
Chief Executive Officer, L&DI

# FOREWORD

Training and development activities are amongst the most important human resource management processes that organisations can invest in. Human capital is vital to the competitiveness of organisations as they increasingly operate in a global environment and are expected to cope with highly dynamic business environments. Training and development activities can make an important contribution to the enhancement of human capital. Human capital, which is rare, specific and difficult to replicate by competitors will provide organisations with a sustainable source of competitive advantage.

Training and development activities enable employees to enhance their human capital through the development of job knowledge, specific job and role related skills and the alignment of employee attitudes and values with those required by an organisation.

I recommend that all training and development specialists, and all those who aspire to a career in training and development, study this publication. It provides a comprehensive overview of training and development and includes a variety of techniques and advice that will help to professionalise practitioners in this field. Training and development specialists who are viewed as credible and professional will enhance the potential of human capital in organisations. This will boost their dynamic capabilities and improve their competitiveness and effectiveness.

**Professor Thomas N. Garavan**
UCC

# Training and Development Background & Context

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▶ Identify stages in the history of training.

▶ Explain factors influencing approaches to training over time and the changing nature of trainee motivation.

▶ Differentiate between the concepts of training, development, education and learning.

▶ Discuss the impact of training and development in a socio-economic context and examine associated issues at individual, organisational and national levels.

## INTRODUCTION

The purpose of this chapter is to set a context for training and development. It includes an overview of issues surrounding training in general at individual, organisational, national and international levels and encompasses historical and socio-economic focused elements.

## HISTORICAL OVERVIEW

As the "overview" in the heading suggests, this section is not being put forward as a comprehensive history of training and development. Instead, it attempts to provide a historical backdrop by following a generally chronological sequence.

### In The Beginning...

We can readily imagine that training was a feature of life for our prehistoric ancestors. Knowledge and skills that may have been acquired by various learning processes (e.g., discovery, trial and error, experience, etc.) were passed on from individual to individual, from group to group and from adults to children. While we can only surmise about its exact nature, it may be suggested that this was the earliest form of "instruction". According to Miller (1996), as humans invented tools, weapons, clothing, shelter and language, the need for training became an essential ingredient in the march of civilisation.

The standard of training and the specific approach taken may be a matter of conjecture, but the onward march of civilisation would suggest that it was successful. Indeed, the development of "instructional practices that served the needs of the time" is proposed by Brethower & Smalley (1992). Information about sources of food, shelter and danger may have been conveyed by sounds, signs and even drawings, while skills such as hunting, creating fire and cooking may have required an additional mode such as demonstration.



Our imagination can also take us into the lives of the "trainees" from this period. They were most likely motivated by a range of needs, primarily by the basic needs of survival and safety. However, needs connected to social affiliation, approval, achievement and status can also be realistically proposed as having an effect on their attitude to training.

### Ancient Military Training

As settlements and civilisations developed, so too (one might add unfortunately) did the need for armies. While this need may have had a defensive focus in some situations, there is ample evidence of armies being organised for the purpose of conquest. Thus, for example, the origins of military might be associated in ancient times with Sumer, Greece and Rome, to name but a few. To achieve the coordination and discipline made famous by these armies, training was an essential element in their development. A multiplicity of sources provides details about the

focus and nature of related training activities. Among others, these invariably consisted of instruction in the effective use of weapons, horsemanship, and fighting formations.

It is also worth recording here the existence of "Epitomae rei militaris" ("Concerning Military Matters") a treatise of Roman warfare and military principles, attributed to Publius Flavius Vegetius Renatus, which dates from around 390 B.C. This might be described as an early example of a "Training Instruction Manual" or even, with a little stretch of the imagination, of a "Standard Operating Procedure" (S.O.P.).

Instruction practices in these situations were in all probability harsh in the extreme and we can visualise the instructors as fairly brutal taskmasters. Presumably, the training approach chiefly followed a pattern of demonstration, practice and feedback (with "physical" as well as verbal feedback the order of the time).

Within the mind of trainees, many of whom had likely been "press-ganged" into service, we can perceive an outlook of "adapt to this training regime or else!". However, while their primary motivation may have been to learn quickly and well in order to increase their chance of survival in battle; needs connected to affiliation, approval, achievement, status, material gain and advancement also come to mind as motivational factors.

## The Guild System

Guilds have their genesis in a long history of associations built around the work of specific crafts, which can be traced back to places such as India, China and Rome. The guild system was a prominent feature of European commercial life during the Middle Ages and was introduced to Britain courtesy of the Norman Conquest. As outlined by Garavan et al (1995), guilds became self-contained and self-perpetuating through a process of controlled apprenticeships which provided each craft with a ready supply of trained craftsmen,

but in numbers that left the power and control of each guild beyond question. The guild system is described by Miller (1996) as having three classes of membership – the master (who owned the raw materials and tools, and also directed the work) – the apprentice (who lived with the master and received maintenance and training) – the journeyman (who, having passed through the apprenticeship process without having yet qualified as a master, received fixed wages for his labour). Training was therefore an integral feature of guild apprenticeships, with the trainee bound by contract to serve his master faithfully for seven years while simultaneously learning his trade. It is not difficult to recognise the origins of modern craft apprenticeships, and the linked notion of "serving one's time", in the guild system.

Let us briefly contemplate the manner of instruction that these masters engaged in. It might be reasonably suggested that it varied considerably and that it was shaped by a number of factors pertinent to them as masters and instructors. Among these we may include personal characteristics and attitudes; prevailing customs; their relationships with particular apprentices; and economic circumstances. The art of effective instruction may have come easily and naturally to some; to others the task of passing on knowledge and skills may have been deemed a burdensome hassle.

Thus, many apprentices were undoubtedly subjected to a strict and monotonous regime, with little room for discussion, questioning or innovation. Others almost certainly enjoyed a more engaging and interesting learning routine.

What about the motivation of these trainees? Again, it may have varied considerably – to some, the motivation to learn quickly and well may have been driven by a desire to avoid the wrath of the master – to others gaining the approval of the master and a sense of achievement may have carried more weight. In general, it is seen as safe to assume that most apprentices were motivated by the possibility of improved status, greater self-determination and material gain at the end of their training period.

## Industrialisation

The "Industrial Revolution", which began in Britain around the middle of the 17th century and subsequently spread to Europe and the United States, was responsible for major socio-economic and cultural upheaval. In particular, it impacted in a momentous fashion the process of manufacturing and it was a harbinger of sea changes in the nature and organisation of work. These changes were driven by the transformation from craft production in relatively small workshops to mass production in large factories. A significant side effect of industrialisation was the division of labour, which according to Durkheim (1933) manifested itself in occupations being separated and specialised. Thus, groups within the labour force became broadly categorised as managerial, clerical, technical, skilled, semi-skilled and unskilled.

While various combinations of social background and formal education were associated with managerial, clerical and technical positions, a recognisable training entity was most associated with craft apprenticeships (Garavan et al, 1995). Apprenticeships developed in both general and specific work terms. From a general

perspective, apprenticeships became associated with "transportable" trades such as carpentry, maintenance (e.g. fitters, plumbers, and at a later stage electricians) and bricklaying, while other trades evolved around specific industrial sectors such as iron-founding and shipbuilding. However, formal training was considered largely superfluous for semi-skilled and unskilled work. For people in these categories, the ability to perform work tasks was most likely acquired by observing an experienced worker, by listening to advice (when it was offered) and perhaps by trial and error backed up by force of will. This exemplified an informal on-the-job approach to training.

As the tentacles of industrialisation spread, the pace of innovation and technology increased. Scientific advances in methods of transportation, power generation and engineering were eagerly utilised and industrial "machines" became the heartbeat of

manufacturing concerns. Of course, someone had to operate this machinery and carry out ancillary tasks, and according to Miller (1996), factory training schools began to spring up and become commonplace in the U.S. This so-called classroom training represented a movement to a formal off-the-job training approach.

Unfortunately, little information appears to have been recorded about the exact nature of this training, in particular about the people responsible for delivering it. In all probability it was carried out by experienced workers, but we can only surmise about their expertise as trainers and the impact that this had on the effectiveness of the training. Drawbacks with this training are also highlighted by Sleight (1993) who refers to potential problems with the transfer of "abstract" learning to the actual workplace and potential difficulties encountered by trainees in group learning situations.

Trainees in this era had probably progressed beyond "survival" as a motivational factor, but security, affiliation, recognition, a sense of achievement and, in particular material gain can be put forward as relevant in this context.

## Taylorism / Fordism

F.W. Taylor (1856-1915) is widely known as the father of scientific management (Taylor, 1911). Although his methodology was aimed at improvements in a number of aspects of the manufacturing process, we will concern ourselves with those that had a direct impact on work organisation and training. By studying the way jobs and tasks were carried out, Taylor concluded that breaking tasks into small elements meant that they could easily be learned and carried out by largely unskilled workers. Thus, utilising the division of labour, one of a series of tasks could be allocated to individual workers who would repeatedly carry out this task (and just this task) during their work. He also proposed that workers should be trained to carry out specific tasks in order that they might reach maximum speed and efficiency as quickly as possible and attain the highest class of work attainable to them.

further training was deemed necessary. Here again, information on the exact nature of the training, and on the people responsible for delivering it, is quite sketchy.

It may have been carried out by supervisors or experienced workers (or combinations of both depending on the situation). Undoubtedly, trainers would have been very familiar with and skilled in the task involved – again, we can only surmise about their expertise as trainers.

In terms of trainee motivation, security and material gain are two likely influencing factors. However, with the direct and short-term focus of the training, allied to the nature of the work itself (which has been widely described as monotonously repetitive), it is deemed unlikely that other common motivational factors such as affiliation, approval or a sense of achievement had a major impact in this scenario.

## Influence Of World Wars I & II

The production requirements predicated by a war environment had a considerable influence on the development of training methods. During World War 1, according to Miller (1996) and Sleight (1993), Charles Allen devised a method of training workers in the shipbuilding industry in the U.S. He adopted a standard method of instruction whereby supervisors would carry out training using a four-step process of show (prepare), tell (present), do (apply) and check (inspect). Interestingly, a similar method is still adopted for instruction/skills demonstration, although a slight change of emphasis may be detected in the now common sequence of tell (trainer explains), show (trainer demonstrates), practice (trainee performs task), feedback (trainer provides feedback and guidance).

"Taylorism" is often linked to "Fordism" (although unfairly so in the eyes of some commentators) in terms of work organisation in mass production manufacturing facilities. The production or assembly line system is prominently associated with manufacturing methods employed by the Ford Motor Company. According to Miller (1996), the moving assembly line was established in a Ford facility in 1913, where an automobile chassis started on one end of the production line and ended its journey as a fully functional Model T Ford. Along the way it passed through the hands of a series of workers who each completed an individual task before it moved on to the next in line.

The focus of training in this type of situation was on ensuring that individuals were able to perform their allocated task in the "one best way" and to do this at maximum speed and efficiency. Therefore, while training was considered an important element under Taylorism/Fordism, the training involved was front-loaded; once very specific skills were acquired, no

Returning to the U.S., this time during World War II, another significant development was the establishment of a job instruction training (JIT) programme for supervisors who were responsible for training workers in defence-related manufacturing facilities. This initiated the spread of similar

programmes across the U.S. in tandem with the now ubiquitous term "train-the-trainer". In military terms, this era also witnessed a proliferation of training manuals, many of which were concerned with basic instruction in the use and maintenance of arms. These "training aids" were used in tandem with formal instruction.

The influence of a war environment thus brought into common practice a specific method of instruction and a formal system of job instruction training. These advances should have had an impact on the motivation of trainees. Clear and methodical instructions, opportunities to practice and the provision of feedback may indeed have positively affected motivation factors such as affiliation, approval, and a sense of achievement, and may have contributed to material gain (in the short-term at least). However, as suggested by Reid et al (2004), there were limitations to this system from a "motivation to learn" perspective – trainees were offered little explanation of why certain tasks should be performed in a particular manner and were not commonly encouraged to ask questions or make suggestions.

## Developments Post World War II

The period following World War II saw a number of seminal developments affecting training in general and specific contexts.

**(a) Personnel Departments**

A major development was signalled by the rise of "personnel" as a function within organisations. The role of personnel departments gradually encompassed a wide range of responsibilities, including manpower (as then known) planning; staff recruitment; performance and reward management; industrial relations; and training and development. Although training and development was under the remit of the personnel function, people began to specialise and gain qualifications in this field and roles such as "training officer" and "training manager"

became commonplace, especially in larger organisations. In addition, the systematic training cycle of identiftying needs; designing, delivering and evaluating, was being widely adopted. This approach was promoted in the U.K., for example, through the establishment of Industrial Training Boards in 1964 (similarly in Ireland with the creation of a national training authority – AnCO).

**(b) Motivation / Organisational Psychology**

The publication of significant works on motivation and organisational psychology by Maslow (1943), Argyris (1957), Herzberg et al (1959), and McGregor (1960) among others, began to create a revised mindset about the organisation of work and the potential of employees. It is not deemed necessary to outline the theories behind their work in detail at this juncture; instead, we will summarise the notions behind them as follows:

‣ Employee motivation, and thus performance, can be positively affected by formal recognition, a sense of achievement, the nature of the work itself, greater responsibility and opportunities for advancement.

‣ Given encouragement and appropriate circumstances, employees will accept (and even seek) greater responsibility.

‣ The intellectual capacity of employees is under-utilised as many have the potential to contribute ideas and creativity in suggesting improvements and solving problems.

**(c) Learning Theory**

Imaginative ideas and theories about adult learning were circulated through formative works by Rogers (1969) and Knowles (1974), among others. Principles advocated by these works included: adopting a facilitative approach to the transfer of learning; actively involving the learner; drawing out, and building on, the learner's experience; making the subject-matter relevant to the learner; and nurturing the notion of self-direction.

It would seem obvious to suggest that such noteworthy developments should have created a real difference in attitudes to training, and indeed they did in many circumstances. However, at the risk of being repetitive, it must be emphasised that such a difference was much more evident in large manufacturing facilities. In any case, some wheels grind slowly and change in the ethos and approach to training was by no means universal even across developed economies.

So while some employees were trained in what we might call an enlightened fashion (e.g. by trained instructors, with the background to work knowledge and skills explained, by having their previous experiences drawn on, and with opportunities being provided for questioning), for many others the traditional "sit-by-nellie" approach was still the norm (e.g. by untrained albeit experienced workers).



## Further Developments

During the latter part of the 20th century further developments in approaches to management and to work organisation had a dramatic influence on attitudes to training in general and to the scope and nature of its delivery. In tandem with the fresh perspectives on organisational psychology outlined previously, the notion of employees as an asset rather than a cost began to gain in popularity. Thus, Quality of Work Life (QWL) initiatives were driven by the belief that paying greater attention to the needs of employees would increase their motivation and consequently their performance. Related developments around socio-technical systems (in simple terms, systems that consider people, technology and their environment) brought seminal changes to work organisation. There followed a veritable plethora of initiatives such as Manufacturing Resource Planning (MRP), Total Quality Management (TQM), Business Process Re-engineering (BPR), and Lean Manufacturing, to name but a few.

The overall thrust of these systems and methods incorporated increased use of technology and information systems, a focus on customer and service quality, and emphasis on improving the efficiency and effectiveness of operations. A key factor in all of this was the utilisation of work groups and teams who were involved in all aspects of a production or service process. In conjunction with engagement in all aspects of work, employees also became involved in customers' demands and in striving after constant improvement (Sandberg, 1995). Associated with this was the notion of "empowerment", whereby work groups and teams were granted greater autonomy over work planning and decision-making.

It is not difficult to perceive the critical role of training, and indeed development, in facilitating the success of these initiatives. Interventions needed in such instances expanded dramatically and may be seen to encompass a diverse range of themes, including:

▸ **Change management –** developing managerial abilities to cope with changes in organisational culture & structure; work organisation; management styles; and industrial relations.

▸ **Technical skills –** up-skilling and cross-training associated with new technologies; new systems; job enrichment; and multi-tasking.

▸ **Teamwork –** building the capacity of individuals and groups to operate effectively in a team environment; take on team leadership roles; and train and coach team members.

▸ **Continuous improvement –** developing the knowledge, skills and attitudes required to: understand and apply related concepts and methods; adopt a formal approach to problem-solving; and engage in effective decision-making around improving a process or output.

Further concepts such as "The Learning Organisation" and "Knowledge Management" must also be referred to here. In basic terms, "Learning Organisation" suggests the adoption of organisational and individual learning as a core value and the full utilisation of learning potential focused on achieving organisational objectives (for an excellent overview of a learning organisation and organisational learning, see Easterby-Smith, et al, 1999).

Again, in basic terms, "Knowledge Management" suggests a process whereby organisations utilise their intellectual and knowledge-based assets to gain competitive advantage.

According to Garavan, et al (2009), organisational learning and knowledge management are related and apply to a broad set of activities through which organisations learn and organise knowledge.

From the historical backdrop outlined above we can see the changing nature of training and development over time. From a situation where training meant the passing on of survival skills with basic signals, through learning specific skills at the hands of a master craftsman, to industrialisation and the "front-loading" of skills and finally to the diverse range of training and development interventions reflected in organisations today.

Let us now move on and examine the concepts of training, development, education and learning.

## TRAINING, DEVELOPMENT, EDUCATION AND LEARNING

Much has been written about the terms training, development, education and learning. Distinct definitions have been offered for each and the possible differences and links between them have been examined in some detail (see Garavan et al, 1995 & Garavan, 1997). We propose to look at each in turn, particularly in terms of their scope and nature, before discussing their context in an organisational learning context. However, before doing so it is important to explain the terms knowledge, skills and attitudes (often shortened to KSA) that will be referred to when looking at training, development, education and learning. We will go into more detail on these terms at a later stage, but in basic terms: knowledge refers to what someone knows; skills relate to what someone is able to do; and attitudes reflect how someone behaves.

### Training

Training can be defined as a planned and systematic activity aimed at the modification or development of knowledge, skills and attitudes that will enable individuals to perform effectively in their current work role(s). It may be carried out formally (i.e. by a trained trainer) or informally (i.e. sit-by-Nellie through an ad-hoc approach) and usually has a short-term focus. Training commonly takes place in an on-the-job environment (although it may be performed in an off-the-job situation).

The expected outcomes of training are generally defined quite narrowly – trainees should be able to perform specific tasks within a particular job. Typical methods associated with training are instruction, demonstration, practice and feedback. These methods are often employed in conjunction with a Standard Operating Procedure (S.O.P.) or a Training/Job Instruction.

## Development

Development may be defined as a general enhancement and growth of an individual's skills and abilities. It may be focused on effective performance in a specific future role or it may be considered as a general activity.

– in either case it has a longer-term focus than "training". Thus, it is concerned with broad subject matter and includes both formal (conscious) and informal (unconscious) learning experiences. Development will sometimes deliberately embrace a combination of off-the-job and on-the-job learning activities.

The expected outcomes of development are generally defined in broad terms – individuals should improve a range of abilities (e.g. improved problem-solving, time management, interpersonal skills, relationship management, etc.). A wide range of methods are associated with development, including role play, case studies, outdoor development, presentation and discussion (off-the-job), action learning, mentoring, counselling, and coaching.

## Education

Education is primarily viewed as the acquisition of knowledge through a formal structure and is seen to have a theoretical basis. It is aimed at developing knowledge (and possibly skills and attitudes) that will enable individuals to perform effectively in their current and/or future work roles. Within its longer-term focus, it commonly takes place off-the-job.

Typical methods include lectures, guided reading, workshops and seminars.

The expected outcomes of education are usually defined in academic terms (e.g. the attainment of a qualification), but they may be related to a future role, as in a Master of Business Administration (M.B.A.) through which an individual is expected to have acquired specific expertise that will be utilised by a sponsoring organisation.

## Learning

Training, development and education have at least one thing in common – they all involve learning. Learning is best viewed as a process – one through which individuals acquire knowledge, skills and attitudes. This process has many sides and may occur in a wide variety of ways and settings. We may learn consciously (be aware that we are learning something new) or unconsciously (learn through the accumulation of experiences), formally (in a planned activity), or informally (in our everyday lives). The manner in which people learn has been the subject of major study and debate over many years and we will review aspects of learning theory at a later stage.

When we reflect on the outlines of training, development and education above, we can identify clear differences in their scope and nature. However, we can also see that there are elements of overlap. For example, in an adult education setting, some programmes (e.g. horticulture) may embrace theoretical content (education), practical skill-building (training) and problem-solving (development). We must bear in mind therefore that none of these activities are completely stand-alone and the critical overriding fact is that all are concerned with assisting individuals to learn.

# SOCIO-ECONOMIC IMPACT OF EDUCATION AND TRAINING

There is ample evidence that investment in education and training is a key factor in economic prosperity. The notion of "human capital" was first espoused by Adam Smith (1776), when he pointed to the "stock of capital embodied in men through training, study and education".

This has been echoed many times since as a plethora of commentators have suggested that human resources are one of the key means of gaining competitive advantage.

In an Irish context, Roche & Tansey (1992) state that "...effective economic training enhances the range and depth of the productive skills possessed by the national workforce... the resulting gains in productivity raise output, export and incomes throughout the economy". They further suggest a direct "chain of causation" leading from investment in education and training, to higher productivity, to improved competitiveness, to increased national output, and finally to higher incomes.

## General Impact

The following points outline some interesting evidence and examples of the impact of education and training in a general sense:

‣ Investments in education and training, and acquisition of skills, are identified by numerous studies as key determinants of economic prosperity (Tessaring & Wannan, 2004).
‣ Investment in vocational training (both initial and continuing) generates substantial gains for firms in terms of productivity, profitability, market share and stock market value, and competitiveness (Hansson & Wagner, 2004).
‣ Human resources development and training underpin the fundamental values of society – equity, justice, gender equality, non-discrimination, social responsibility and participation of all in economic and social life (ILO, 2004).

‣ Empirical studies carried out in the past 10 to 15 years identify skills and related investment in education and training as the key determinant of economic prosperity; a central pre-condition for social cohesion and stability (Descy & Tessaring, 2005).
‣ "In one example, macro-economic and political stability, and investment-friendly economic policies, combined with targeted education and training, have promoted harmonious economic social development. In another example, lack of investment in human and physical capital produced a downward spiral of little productivity and job growth, economic stagnation and low incomes" (ILO, 2004).

It seems reasonable to suggest therefore that investment in education and training plays a key role in improving productivity, competitiveness and overall economic performance, as well as contributing to social harmony.
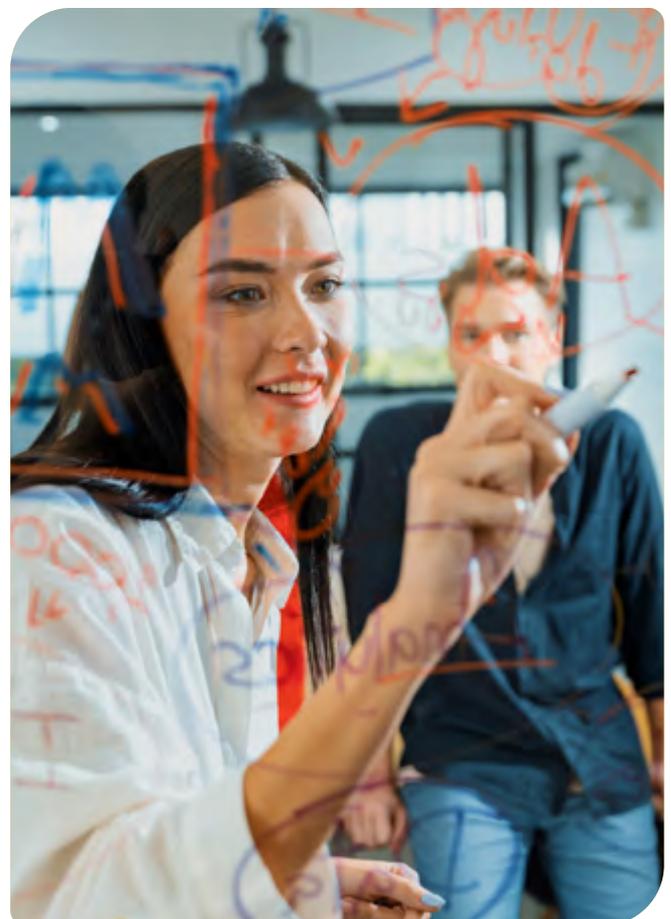
## Impact at Individual Level

There is a wealth of evidence to indicate that the extent and level of training received is a primary factor in determining an individual's social and economic well-being. For example:

(a)  **Employment**
  ‣ People with low skills are almost three times more likely to be unemployed than those with high skills (CEDEFOP, 2003).
  ‣ The employment prospects of low-qualified young people, women of prime working age, older people and those at a disadvantage in the labour market are influenced to some extent by their access to education and training and acquiring the skills they need (Bainbridge et al, 2003)
  ‣ Certain analyses point to a greater probability of rapid re-employment in the case of involuntary job loss if the worker has previously received training (OECD, 2003).

(b)  **Productivity / Earnings**
  ‣ Most studies find a positive and persistent effect of training on earnings (OECD, 2003).
  ‣ In most cases the benefits of education and training studied are material, in particular monetary returns (earnings) (Descy & Tessaring, 2005).

(c)  **General well-being**
  ‣ An individual is more likely to be able to cope with the vicissitudes of economic life more effectively the more his/her capabilities and skills are maintained and enhanced throughout working life (Mayhew & Rijkers, 2004).
  ‣ Education, training and skills are associated with a better quality of life, career and social status (Tessaring & Wannan, 2004).

(d)  **Job Security**
  ‣ Training appears to have a stronger impact on both subjective and objective measures of employment security in the case of both older and low-educated workers (Bassanini, 2004).

These are just a snapshot of the examples available concerning the impact of training on individuals from a socio-economic standpoint. In summary, research indicates that education and training can have a significant influence on whether or not an individual is employed in the first place and subsequently on ongoing job security. They can also impact on an individual's earning capacity and tangentially affect an individual's quality of social and economic life.

## Access to Training – Inequities

Recent trends, emanating from Organisation for Economic Co-operation and Development (OECD) reports indicate that significant inequities exist in terms of access to training (Costine, 2006). The OECD consists of 30 member countries that share a commitment to democratic government and the market economy. It enjoys active relationships with some 70 other countries and can therefore be considered in global terms. The work of the OECD covers economic and social issues and it is well known for its publications and statistics. On this basis let us look at a summary of some relevant recent findings emanating from this source (OECD, 1999; OECD, 2003; OECD, 2005).

(a)  **Overall**
  ‣ The level of training differs significantly across OECD countries. In general, formal continuing training is relatively low in southern European countries such as Greece, Italy, Portugal and Spain, while relatively high in the UK, France and most Nordic countries.
  ‣ In practically all OECD countries, continuous vocational training (CVT) is unequally distributed across individuals and organisations, with women, older workers, low-skilled workers, immigrants and those employed in small firms receiving less training.

**(b) Education**

▶ A strong link is widely indicated between levels of initial education attainment and the extent of involvement in training activities.

▶ Participation rates of those with tertiary education in adult learning are often five or ten times as high as those of the low-skilled.

▶ Workers with better literacy skills receive more training.

**(c) Skills**

▶ Participation in training among low-skilled occupations is significantly lower than participation in high-skilled occupations.

▶ While estimates indicate that the type of occupation has little influence on the demand for training, the supply of training is estimated to increase with the degree of skill intensity.

**(d) Age**

▶ The incidence of training tends to decline with age (the average participation rate of those between 56 and 65 is about 75% of those aged between 36 and 45 years).

▶ Older individuals tend to participate much less in adult learning than their younger counterparts.

**(e) Gender**

▶ While in overall terms men and women appear to participate at fairly equal rates, women have significantly lower training expectancy rates than men (this can be linked to less continuous employment).

▶ While participation rates by gender appear generally similar, in terms of volume, female employees receive on average 17% fewer training hours than male employees.

**(f) Roles**

▶ Training supply is unambiguously greater for individuals with a supervisory/managerial role compared with individuals with some or no supervisory/managerial responsibilities.

**(g) Others**

▶ Immigrants generally receive less training than their native co-workers.

▶ There are few employer-paid training opportunities for most part-time and temporary employees.

It is deemed superfluous to outline further specific examples, but these general trends are supported widely in research studies. Indeed, they form the basis for countless policy directives at an international and individual country level, as reported by the International Labour Organisation (ILO) and the European Centre for the Development of Vocational Training (CEDEFOP), among others.

Training inequalities exist on an internationally wide scale, with specific categories of people affected. These include those with lower levels of initial education; those with low skill levels; those in non-supervisory positions; older workers (especially those in the over-55 age bracket); women; immigrants; and those in part- time or temporary employment.
The associated consequences suggested significant implications at a socio-economic level, as we have already outlined the linkage between levels of education, the extent of training received, and the standard of living enjoyed.

## SUMMARY

In this chapter we have provided a broad perspective on training and development. Having traced its general history, we have examined the associated terms: training; development; education; and learning, before outlining the importance of its socio-economic context from national and individual viewpoints. We will next examine training and development in its organisational setting.

## Impacts on Learning in a Post-Covid Learning Society

The COVID-19 pandemic has had a significant impact on learning environments worldwide, prompting rapid adaptations and innovations in education.

As we move beyond the immediate crisis, several trends are emerging in the growth of learning environments:

**Hybrid Learning Models:** The pandemic accelerated the adoption of hybrid learning models, which combine face-to-face instruction with online components. Many educational institutions are embracing hybrid approaches to offer flexibility and accommodate diverse learning needs, blending the benefits of in-person interaction with the convenience of online learning

**Increased Integration of Technology:** The reliance on technology for remote learning during the pandemic has led to increased integration of digital tools and platforms in learning environments. Educators are incorporating a variety of technologies, such as learning management systems, video conferencing tools, and interactive multimedia resources, to enhance instruction and engage learners both in and out of the classroom.

**Personalized and Adaptive Learning:** With the proliferation of digital learning resources and data analytics tools, there is a growing emphasis on personalized and adaptive learning experiences. Educators are leveraging technology to tailor instruction to individual student needs, preferences, and learning styles, providing targeted support and feedback to optimize learning outcomes.

**Blended and Flipped Classroom Models:** Blended and flipped classroom models, where instructional content is delivered online outside of class time and face-to-face sessions are used for active learning activities, are becoming more prevalent. These models promote student engagement, collaboration,

and critical thinking skills by allowing for more interactive and hands-on learning experiences.

**Emphasis on Social-Emotional Learning (SEL):** The pandemic highlighted the importance of supporting students' social and emotional well-being in addition to academic learning. There is a growing recognition of the need to prioritize SEL initiatives in learning environments, fostering resilience, empathy, and self-regulation skills to help students thrive in both academic and life settings

**Flexible and Adaptive Learning Spaces:** Learning environments are evolving to accommodate diverse teaching and learning modalities, with a focus on creating flexible and adaptive physical and virtual spaces. Educational institutions are redesigning classrooms, libraries, and collaborative spaces to support various learning activities and promote creativity, innovation, and collaboration.

**Lifelong and Life wide Learning Opportunities:** The pandemic underscored the importance of lifelong and life wide learning as individuals navigate rapidly changing societal, economic, and technological landscapes. Learning environments are expanding beyond traditional educational settings to encompass a broader range of learning experiences, including workplace training, community-based programs, and online courses.

Overall, the post-COVID growth of learning environments is characterized by a shift towards more flexible, technology-enhanced, personalized, and holistic approaches to teaching and learning.

These trends reflect a commitment to innovation, equity, and student-centered education in the face of ongoing challenges and opportunities in the digital age.

# Training and Development Organisational Context

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

- Define the term "organisation" and identify typical elements of an organisation.
- Discuss the purpose of training and development (T & D) in an organisational and/or individual setting.
- Examine the internal and external environmental factors influencing T & D requirements.
- Identify barriers to training and attitudes to training in organisations.
- Examine the impact of organisation mission, vision, policy and strategy on T & D in an organisational setting.
- Outline the structure and roles of the T & D function in organisations.

# INTRODUCTION

The purpose of this chapter is to examine the context of training and development (T & D) in an organisational setting. We will begin by briefly discussing organisations in a general sense, before focusing on the role of training and development in this setting and the various factors that influence its ethos and functioning.

# WHAT IS AN ORGANISATION?

Many definitions have been offered for what exactly constitutes an organisation. General agreement may be suggested that it embraces a social unit of people who have common objectives or goals and are structured and managed accordingly. Organisations have a management structure that determines relationships between functions and positions, and subdivides and delegates roles, responsibilities, and authority to carry out defined tasks (www.businessdictionary.com). The typical elements of an organisation are seen to include:

- **Mission –** the goals that form the rationale for the existence of an organisation in the first place and constitute specifically why it was established and what it is striving to achieve.
- **Strategy –** this sets out how an organisation plans to align its resources in order to achieve its objectives and goals.
- **Plans –** the means through which it is proposed to implement strategy. They are typically driven through co-ordination of decision-making by the various functions of an organisation (e.g. finance, human resource management, operations management).
- **Structure –** an organisation has a definite structure which is based on the hierarchy of its people and its functions and the allocation of roles and responsibilities.

- **Staff –** in an organization its staff is distinguished by their specific roles. Commonly, staff in an organisation is categorised under two broad headings: management and employees. However, many sub-divisions are frequently referenced: management (e.g. executive, senior, middle, front-line, junior, etc.); employees (e.g. technical, administrative, operative, skilled, semi-skilled, general, etc.).
- **Culture –** this refers to the norms and values that permeate throughout an organisation. It is often referred to in general terms as "the way things are done around here" or "way of working" (WOW). A specific culture may be cultivated formally and/or may develop informally over time (sometimes differing formal and informal cultures co-exist in an organisation).
- **Systems –** internal systems relate to the processes and procedures through which an organisation's operations are established, controlled, and maintained (e.g., information systems, financial systems, human resource management systems, etc.).
- Organisations are also said to be "open" systems in that they affect and are affected by the environment beyond their boundaries.
- **Stakeholders –** the various individuals and groups that are deemed to have an interest in an organisation. These can vary significantly, depending on the strategic nature of the organisation involved.

One of the issues in examining the nature of organisations is the many types and varieties in existence. In overall terms, examples might include public, private and voluntary organisations. However, these may be subdivided into various categories within each broad type: public service (e.g. local government, health, education, social protection, transport, and so on); private companies, often, but not necessarily, concerned with commerce and business (e.g. financial, manufacturing, agricultural, legal, medical and so forth); and voluntary (focused on specific disabilities or health-related issues, charities, institutes, community-based, etc.).

Of course, many of these categories could be further sub-divided, but we suggest the point is made; organisations have a very wide- range of objectives and exist in many shapes and sizes.

For our purposes, where the focus is on the context of T & D, we are obliged to embrace organisations from a generic perspective and suggest that the typical elements listed above will prevail. In tandem with this notion, and in accordance with Mullins (1999), we suggest that management in an organisation is responsible for:

▸  Clarification of objectives.
▸  Planning of work.
▸  Organisation of activities.
▸  Directing and guiding; and
▸  Controlling performance.

Having provided an overview of what exactly an organisation is, let us now consider the role of T & D in an organisational setting.

## THE PURPOSE OF T & D IN AN ORGANISATIONAL SETTING

As we have outlined in the previous section, organisations have goals and objectives and to achieve their strategy these must be converted into plans. The effective utilisation of human resources is an essential component of such plans.

In this regard, organisations commonly use a system of Human Resource Management (HRM) and accordingly establish a Human Resources (HR) function. The responsibilities embraced by this function may vary significantly from organisation to organisation but may be seen to include H.R. planning; recruitment & selection; employee relations; performance management; talent management; T & D; organisational development; career planning & development; and compensation systems.

This means that responsibility for T & D generally resides within the H.R. function rather than operating as a separate entity. Much debate has surrounded this situation and it has been argued that to maximise the contribution of T & D it should operate at a strategic level in its own right. This will enter discussions further along in this chapter.

At this point, also, it should be noted that the term T & D in no longer employed by some organisations; it has been replaced by the term "Human Resource Development" (HRD) or indeed "Learning and Development" (L & D). However, we will remain with the term T & D which is still in common usage.

## Investment in T & D

"Why should an organisation view T & D as an investment rather than a cost?" This is a fundamental question that often arises when the role of T & D is discussed. To answer it satisfactorily, we need to examine the potential contribution of T & D. To begin with, its primary role is to contribute to the successful achievement of organisational objectives. In basic terms, this means ensuring that its members have the required knowledge, skills and attitudes to enable an organisation to function at maximum effectiveness and efficiency. In a broader sense, it may mean that T & D is expected to drive change management initiatives, help to create a committed workforce and assist in improving individual, and thus organisational, performance. The potential contribution of T & D, therefore, is suggested to include the following:

▸ **Development of staff knowledge, skills and attitudes –** increasing the job knowledge, skills and attitudes of employees at every level in an organisation.

▸ **Personal growth –** providing an opportunity and broad structure for the general development of employees and assisting with the alignment of personal and organisational goals in this context. T & D is increasingly viewed as an essential element if the value and potential of the people within an organisation are harnessed and grown.

▸ **Learning culture –** creating an environment that fosters individual and organisational learning on a formal and informal basis. This supports the concept of "Knowledge Management" which is linked to increased organisational competitiveness (for an overview of "Knowledge Management".

▸ **Performance –** helping to increase individual performance which contributes to the achievement of an organisation's strategic objectives.

▸ **Continuous improvement –** maintaining a focus on the principle of continuous improvement across all aspects of an organisation's operations.

▸ **Teamwork –** helping to build a sense of teamwork and team spirit within and across all organisational functions.

▸ **Organisational culture –** driving initiatives that help to create and sustain a desired organisational culture and building positive perceptions and feelings about an organisation.

▸ **Job satisfaction –** contributing to overall job satisfaction levels and maintaining or improving morale and commitment. As discussed earlier, organisations that invest in T & D will reap the benefits of an enriched working environment with higher levels of staff retention as well as increased productivity and performance.

▸ **Change management –** facilitating and enabling change management initiatives.

▸ **Health and safety –** helping to improve knowledge, skills and attitudes relating to all aspects of health and safety.

▸ **Image & reputation –** helping to establish an image and reputation of an organisation that reflects an emphasis on opportunities for development and growth. For example, potential employees in an open labour market will often assess the track record of prospective employers in this vital area.

▸ **Competitive advantage –** having the capability to achieve higher levels of performance than competitors through the effective use of resources. Increasingly, high performing organisations are recognising the need to use best T & D practices to enhance their competitive advantage.

This is a significant, though not exhaustive, list of areas through which T & D can contribute to the overall goals of an organisation and therefore support the notion that it should indeed be seen as an investment rather than a cost. However, the extent of this contribution is affected by many factors and we will now look at some of these.

# EXTERNAL FACTORS

Ongoing changes in the external environment can impact on many facets of an organisation's operations (e.g. political; social; economic; technological; financial; environmental).

To cope with resulting ongoing changes, organisations have a requirement for a workforce that is flexible and adaptable, with an obvious knock-on effect for T & D. According to Garavan, et al (2003), various factors in the external environment will impact directly or indirectly on an organisation's strategies and policies. These are seen to include:

▸ **Economic Factors –** Organisations are clearly affected by the economic climate in which they operate. The worldwide economic turmoil that has prevailed in very recent times set off a multiplicity of problems with which organisations are struggling to cope, impacting directly on T & D in the process. Financial strains place a question mark over investment in T & D (we can argue that research evidence suggests that this is short-sighted decision-making, but it prevails in many organisations nonetheless).

▸ **Political Issues –** National policies surrounding support and funding for training those in employment (such as Skillnets in an Irish context) may provide a catalyst for training interventions. Policies with regard to support and funding for training those in the unemployed category may help to provide appropriate candidates for employment (if these policies are directed and managed accordingly). In addition, programmes in this category may carry a work experience element and this has implications for T & D in participating organisations.

▸ **Legislative Changes –** Recent years have witnessed a surge of legislative changes that carry significant implications for T & D in an organisation. Primarily these have been concerned with issues related to equality; terms of employment; health, safety and welfare at work; financial regulations; and environmental factors. The range of these changes has been immense and the demands placed on T & D in organisations equally so.

▸ **Location –** An organisation may be located in an area that is favourable in terms of population and/or proximity to educational institutions whereby a ready source of appropriate candidates for employment is provided. Where this is not the case, the emphasis falls on T & D to develop a strategy that ensures requisite skills are available.

▸ **Social and Demographic Trends –** Changes and developments relating to the local population's age, gender, educational attainment, background, family circumstances, etc., can impact on the nature and scope of T & D. In recent years, significant numbers have migrated to Ireland and the workforce has become more culturally diverse, heralding specific demands on T & D in many organisations. In addition, with greater numbers gaining third level qualifications, there is an increased level of expectation with regard to development opportunities from those in this category entering the workforce.

▸ **Technological Developments –** As the technological revolution continues apace, T & D is obliged to keep abreast of developments and devise training interventions to enable a smooth transition to the utilisation of advances in information, systems and mechanical technologies.

The exact nature and extent to which external factors influence T & D in an organisation is related to the complexity of the external environment relevant to a specific organisation (for further discussion in this vein see Duncan (1972) in Garavan et al (1995, p. 267-268).

## INTERNAL FACTORS

We will next examine a range of internal factors that can significantly influence the ethos and characteristics of T & D in an organisation.

### Culture and Structure

It is our intention here to provide a fundamental introduction only to organisational culture and structure. Our main objective is to highlight how T & D may be affected in lieu of the prevailing culture and structure in an organisation.

Earlier in this chapter we explained that culture is often described in simple terms as "the way things are done around here". It has been defined more formally by Marshall & McLean (1993) as the collection of traditions, values, policies, beliefs, and attitudes that constitute a pervasive context for everything people do and think in an organisation. Among other things, culture is reinforced through a system of rites and rituals, patterns of communication and expected patterns of behaviour (Mullins, 1999).

An organisation's structure consists of activities such as task allocation, coordination and supervision, which are directed towards the achievement of organisational aims (Pugh, 1990).

As a system used to define a hierarchy within an organisation, structure determines the manner and extent to which roles, power, and responsibilities are delegated, controlled, and coordinated. It arranges an organisation's lines of authority and communications and is commonly illustrated through an organisation chart.

Charles Handy (1985) identifies some different types of organisational culture and these have often been linked to a particular organisational structure. We will now look at these and offer some suggestions about the potential associated impact on T & D. In so doing we need to stress that general or typical conclusions are drawn and that a different approach may be evident in many organisations.

(a) **Power Culture** – in this type of culture, power and control radiate from the centre and the associated structure has been likened to a spider's web. It is seen in small, owner-managed organisations (though by no means exclusively so). With this type of culture and structure, very little bureaucracy and swift decision-making may be evident.

In this situation, T & D interventions are most likely to be activated on a "needs must" basis. They will probably be focused on statutory and legislative conventions, such as apprenticeships and health and safety, as well as occasional requirements for specific skills. General training may follow the "sit-by-nellie" approach and a T & D function or specialist is unlikely to feature. Responsibilities for T & D are typically allocated to a tangential role (e.g., quality, health & safety, etc.).

(b) **Role Culture** – here, people have clearly delegated authorities within a highly-defined structure. Typically, these organizations are structured as hierarchical bureaucracies. Power derives from a person's position and little scope exists for expert power. This type of culture and structure is often associated with public and civil service organisations but may also feature across a range of businesses (e.g., traditional retail, manufacturing, etc.).

There is more likelihood that a T & D function will figure in these circumstances but the nature and extent of T & D activities may vary considerably across these organisations. Again, there will probably be a strong focus on fulfilling legislative T & D obligations. However, in many instances, a more formal and proactive approach to T & D will be evident and personal development initiatives may also be supported.

(c) **Task Culture** – within this culture, teams/groups aimed at solving particular problems are usually a prominent feature. Power derives from expertise as long as it is required by a team/group. This type of culture often features the multiple reporting lines of a matrix structure. Influence may be based on expertise rather than role and is likely to be widely diffused. A task culture and matrix structure are commonly linked with organisations where research and development activities are a critical component of operations, such as pharmaceuticals, software development and high-end technology.

Under these circumstances, T & D is likely to play a critical role in achieving organisational goals, with a strong focus on Organisational Development (OD) activities in evidence. T & D interventions will probably be wide- ranging and carry an inherently developmental flavour. Personal and career development will almost certainly be encouraged and attendant opportunities widespread.

(d) **Person Culture** – this is reflected in organisations with a high level of individual expertise and hegemony. It is often associated with partnership-type concerns where a flat or "unstructured" structure is often a feature. Examples might include firms of solicitors, accountancy partnerships, consultancies, and medical practices.

Front-end qualifications and high levels of expertise are associated with a person culture. In such instances, T & D is unlikely to play a key role in the organisation.

Requirement for T & D interventions will largely be identified on an individual basis and will focus on expanding specialist expertise. Legislative requirements will be fulfilled and personal development of support staff will probably be encouraged and supported.

Many organisations will of course have a culture and structure that spans more than one of the categories outlined above. In addition, it may be difficult to place a specific organisation within any of the categories. However, it is evident that organisational culture and structure can have a significant bearing on how T & D is approached.

## Operational Characteristics

The operational characteristics of an organisation can greatly impact on T & D. If these are product driven, whether manufactured or assembled, manual skills will be required. The nature of the product will largely determine the extent of technological applications, but jobs may be defined under a range of skill categories (general skills, craft skills, mechanical skills, etc.).

In particular types of manufacturing (pharmaceuticals, food, healthcare, etc.), compliance with specific standards is a critical feature and add an extra dimension to the role of T & D.

In service-driven organisations, where interaction with customers is prevalent, the development of customer service skills may be seen as a requisite ("may" because many of us might have personal experience of situations where this did not appear to be the case!).

In many call-centre environments, for example, T & D plays a very influential role in ensuring that particular guidelines are followed and this is monitored on an ongoing basis.

## Business Management Strategy

Business management strategy is built around a number of elements which can influence the ethos of T & D in an organisation and the manner in which it is approached.

(a) **Mission** – Johnson and Scholes (1992) define mission as the organisation's raison d'être. It is the most general of objectives and is best understood as a statement rather than a concept. It provides an articulation of general goals and has a long-term focus. It forms the foundation for

strategy and plans as well as functional activity that supports them. The organisational mission is a statement that covers the purpose of an organisation and expresses the aspirations and ambitions of its members. The most effective mission statements are short, clear and identify how the organisation is unique.

Mission statements provide a vision that employees can identify with. They are helpful in explaining what the organisation is all about. They can be used to motivate employees. Here are some samples of mission statements from well-known organisations:

**Coca-Cola**
*Our Roadmap starts with our mission, which is enduring. It declares our purpose as a company and serves as the standard against which we weigh our actions and decisions.*
▸ *To refresh the world...*
▸ *To inspire moments of optimism and happiness...*
▸ *To create value and make a difference.*

**Virgin Atlantic**
*At Virgin Atlantic our mission statement is simple... to grow a profitable airline where people love to fly and where people love to work.*

**GlaxoSmithKline**
*We have a challenging and inspiring mission to improve the quality of human life by enabling people to do more, feel better and live longer.*

(b) **Vision** – This is a view about what the organisation should be and articulates the future of the organisation and the community. The vision statement, when compared with the current reality of the organisation implies the work that still needs to be accomplished.

The role of top management is to have the determination, leadership, credibility and skills to drive the organisation towards achieving this

vision. Vision may be defined in general terms, but nevertheless will influence T & D policies and practices.

(c) **Strategy** – Organisational strategy is defined by Wickens (1987) as getting the organisation from one place to another. Garavan et al (1995) define strategy as the method used in order for the organisation to realise its goals and objectives. Kay (1993) proposes that reputation, ability to innovate, strategic assets and network of relationships are four areas that an organisation might look at in defining their strategy. Therefore, it may be suggested that organisational strategy defines how the organisation is expected to perform and that this is how its success will be measured.

Strategic objectives help to translate the mission statement into actions. They should be carefully worded, be as specific as possible, and indicate a specific measure of performance. As we have previously alluded, T & D is sometimes represented during the formulation of strategic plans and its contribution is thereby maximised. In any case, organisational strategy commonly has a major influence on the role and activities of T & D.

(d) **Policy** – This is a specific statement and is usually an elaboration of the mission. Policy provides guidelines to managers to help them in devising plans and procedures. It also fulfils publicity and culture reinforcement functions for which training and development strategies must be formulated.

Within the framework of overall policy, many organisations devise a specific policy relating to T & D. It may comprise an all-embracing single statement, such as:

"The Company will ensure that all personnel are trained to competently and effectively undertake their assigned activities and responsibilities".

Or it may feature a series of declarations, as in the following example:

▸ The primary objective of training and development will be to support the pursuit of the Company's strategic mission and objectives.
▸ The Company will attempt to create a learning environment where employees will be prepared to accept change, develop new skills and take responsibility for their own continuous learning.
▸ The Company will encourage employees to make the most of learning opportunities to realise their personal potential and career goals.
▸ Recommendations emanating from a systematic training needs analysis process will result in planned training interventions aimed at achieving the Company's business goals.

## T & D FUNCTION – STRUCTURE AND ROLES

It is difficult to know where to start on any exploration of the T & D function (department) and its structure and roles in organisations. In our combined experiences across a wide range of organisations, we have witnessed almost any mixture of set-ups, staffing levels, reporting relationships, roles, responsibilities and degrees of expertise that one may care to imagine. We have already outlined the many influences that help to shape the nature of our conundrum. Consequently, it is deemed obvious that very few organisations will prove exactly similar in the way that T & D is established and organised. Even those wherein many of the factors outlined previously coincide may have variations in their approach.

One way of gaining a perspective is to present the approach to T & D as a continuum, in terms of function, structure and roles, as in Fig. 2.1

**Fig. 2.1 ▸ T & D Approaches – Continuum**

### ORGANISATIONS



In this scenario, we can put forward general propositions embracing organisations A, B, C, D & E. Let us begin by "eliminating" A and E on the following basis:

**Organisation A:** No evidence of a formal approach to T & D – possibility of occasional ad-hoc activities.

**Organisation E:** The perfect learning organisation – deemed a utopian dream.

Now, using our experience of actual organisations, let us propose how circumstances might appear in the remaining organisations – B, C & D.

**Organisation B:** No dedicated T & D function established. Responsibility for HR issues, including T & D, resides with the operations manager who has no formal qualifications in the HR field. General administration personnel deal with all HR administrative tasks.

Most formal T & D activities are focused on ensuring that legislative obligations are fulfilled. Operational training occurs on-the-job and follows a "sit-by-nellie" approach. Occasional formal T & D interventions may be identified for specific members of staff. Personal development is neither encouraged nor supported.

Overall, T & D is seen as a cost, rather than an entity that adds value to the organisation.

**Organisation C:** A dedicated T & D function is established, with reporting responsibility to the HR manager. At the head of the T & D function sits a training manager or training officer who has a qualification in a related discipline. Reporting to the manager/officer are several T & D "generalists" (all of whom have completed a formal "train-the-trainer" course) and a training co-ordinator/administrator. A number of operations staff also act as part-time training instructors and they report to operations management.

T & D is not represented when organisational strategy and plans are being formulated but is consulted as plans are rolled out. Subsequently, training interventions aimed at the achievement of organisational goals are drawn up and implemented. Personal development is supported but not universally encouraged.

Overall, the approach to T & D might best be described as partly pro-active and partly reactive. Investment in T & D is perceived as adding value to the organisation – however, its full potential is not being maximised.

**Organisation D:** The T & D function is represented by a Learning and Development (L & D) Manager who has relevant qualifications at master's level, holds a senior position, and reports directly to the General Manager.

The L & D "team" includes: a group of training specialists who operate on a cross-functional basis; a group of training instructors who operate likewise; a training administrator; and several administration staff. All team members hold qualifications pertinent to their positions. The L & D Manager is involved in the formulation of organisational strategy and plans. Ongoing organisational development activities are driven by the L & D function.

The organisation adopts a continuous improvement policy and cross-functional teams are embedded. Training interventions aimed at the achievement of organisational goals are planned and implemented on a cross-functional basis.

Overall, the approach to T & D can be put forward as very pro-active. Investment in T & D is viewed as essential and the contribution of T & D to organisational effectiveness is maximised.

Organisations B, C and D above are put forward as a representative cross-section but do describe actual organisations from our experiences. However, there are many organisations where T & D structure, roles and overall approaches may be placed somewhere between any of the examples outlined.

## Competency Frameworks

An interesting perspective on T & D roles may be gleaned from competency frameworks. Numerous T & D competency frameworks have been developed, especially by bodies representing the field of T & D (e.g. American Society for Training & Development – ASTD, Canadian Society for Training & Development – CSTD, Learning & Development Institute – L&DI).

The **L&DI Competency Model** (www.landdi.ie) identifies five primary roles associated with T & D, namely Administrator, Instructor, Learning Specialist, Business Partner and HRD Strategist. It also focuses on two broad categories of competence – Foundation and Technical. Thus, for each role, a set of Foundation and Technical Competencies are adopted under the following headings:

## Foundation Competencies

    A. Strategic Perspective
B. Business results
C. Communications
    D. Relationship Management
    E. Leadership Technical Competencies
A. Talent Management
B. Managing Learning
C. Change Management
D. Design and Delivery
E. Measurement and Evaluation

Specific sets of competency indicators were then drawn up under each of the ten categories above. The overall framework features almost 200 competency statements.

## SUMMARY

As indicated throughout this chapter, organisational context has a fundamental influence on T & D; a fact that cannot be over-emphasised. The prevailing ethos of T & D, the nature and extent of its activities, associated roles and responsibilities, and critically how it is perceived within an organisation, are all shaped by factors embraced by organisational context.
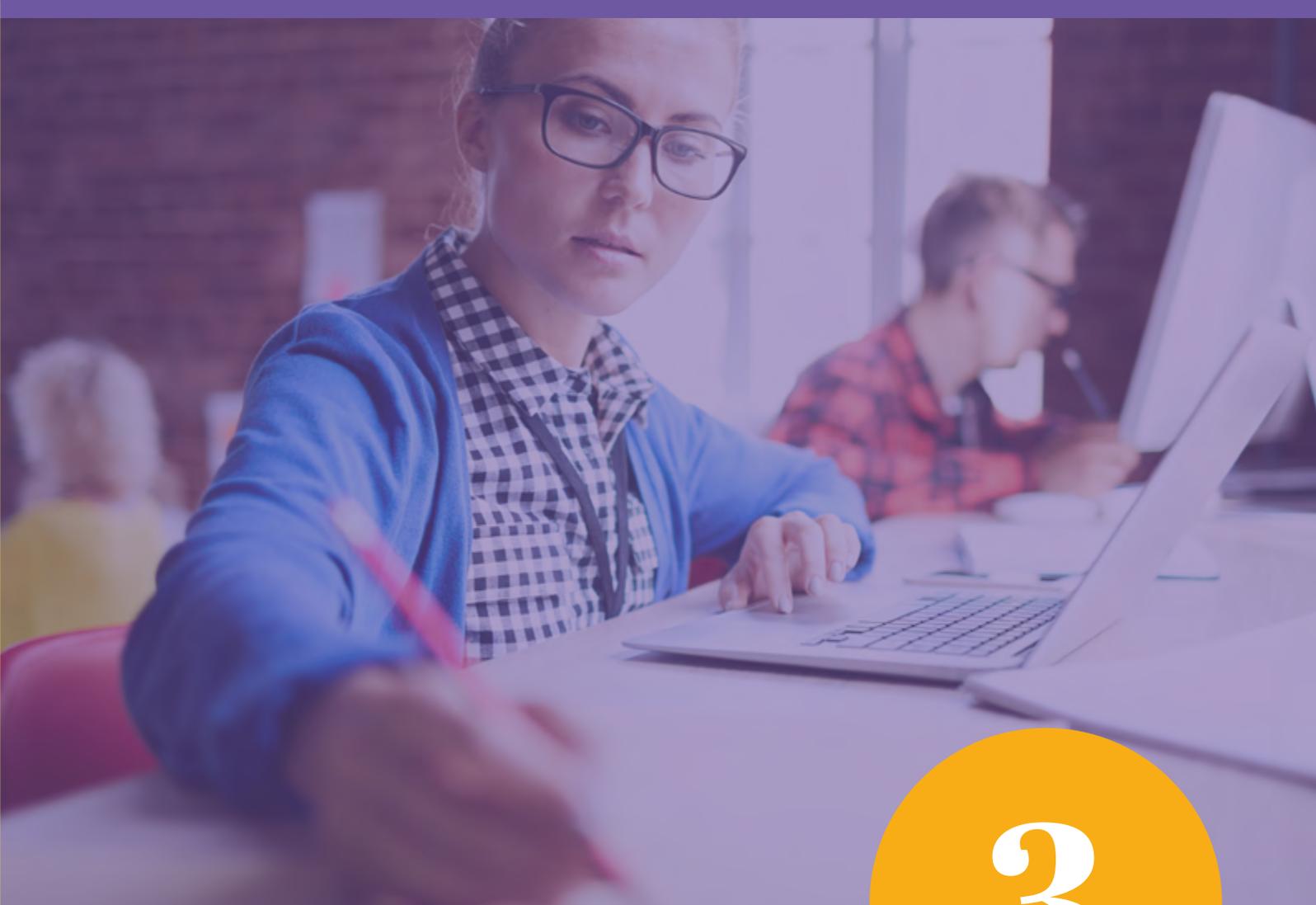
# Adult Learning

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify key contributors to adult learning theory.

▸ Differentiate between different philosophical approaches to adult learning.

▸ Explain the nature of pedagogical and andragogical learning methods.

▸ Identify the primary laws of learning.

▸ Explain the learning cycle and different models of adult learning styles.

# INTRODUCTION

Adult learning has an overriding importance across all T & D activities in organisations and the purpose of this chapter is to outline and discuss the work of prominent theorists in this field.

# THEORISTS

Numerous theorists have contributed to the development of our understanding about adult learning. We will now present a sample of these, briefly summarising some key principles they espoused.

## John Dewey (1859 - 1952)

The core concept of Dewey's view of education was that greater emphasis should be placed on the broadening of intellect and the development of problem-solving and critical thinking skills, rather than simply on memorisation of lessons. He supported the notion that students' past experiences should be incorporated into the classroom situation and that they should be encouraged to "learn by doing". He developed a three-stage model of learning, focused on slowing down the decision-making process so that lessons from past experience can inform judgments about what to do in current situations. The process involves:

▸ Sizing up the situation at hand through objective observation.
▸ Drawing forth knowledge about such situations by recalling similar past experiences (both your own and those of the people around you).
▸ Judging how to proceed, based on this knowledge.

This simple model has profound implications because it makes explicit a process for honing intuitive decision- making skills.

## Jean Piaget (1896 - 1980)

Piaget is renowned for constructing a highly influential four-stage model of child development and learning, based on the idea that the developing child builds cognitive structures (e.g. mental "maps") for understanding and responding to physical experiences within his or her environment. While his work is primarily centred on stages in child development, a central component of his theory is the importance of learner participation (e.g. real knowledge is not transmitted verbally but must be constructed and reconstructed by the learner) which has application in an adult context.

## Carl Rogers (1902 - 1987)

Rogers promoted the notion of experiential learning (e.g. learning by doing).

He listed these qualities of experiential learning: personal involvement; self-initiated; evaluated by the learner; and pervasive effects on the learner. He believed that the role of the tutor/trainer/facilitator was to assist learning. Rogers also emphasised the importance of learning to learn and an openness to change. He proposed that effective tutors/facilitators of learning should possess three essential attitudes:

▸ **Realness/genuineness –** entering into a relationship with the learner without presenting a front or a facade.
▸ **Prizing/acceptance/trust –** caring for learners as individuals and valuing their feelings and opinions.
▸ **Empathic understanding –** understanding learners' reactions and having a sensitive awareness of the way the process of learning seems to them.

Probably his best-known work is "Freedom to Learn" (Rogers, 1969).

## B.F. Skinner (1904 - 1990)

One of the most influential American psychologists and a radical proponent of behaviourism, Skinner developed the theory of operant conditioning; the idea that behaviour is determined by its consequences (be they reinforcements or punishments), which make it more or less likely that the behaviour will occur again. His principles are still incorporated within treatments of phobias, addictive behaviours, and in the enhancement of classroom performance (as well as in computer-based self-instruction).

Operant Conditioning is based on the idea that learning is a function of change in overt behaviour. Changes in behaviour are deemed to be the result of an individual's response to events (stimuli) that occur in the environment. When a particular "Stimulus-Response (S-R)" pattern is reinforced (rewarded), the individual is conditioned to respond. Reinforcement, in the form of something that strengthens the desired response (e.g. verbal praise, a feeling of increased accomplishment or satisfaction) is a key element in S-R-R theory.

## Malcolm Knowles (1913 - 1997)

Malcolm Knowles is famous for his work around the theory of Andragogy and is credited with being a fundamental influence in the development of Humanist Learning Theory. His work was a significant factor in reorienting adult educators from "educating people" to "helping them to learn". We will delve further into his work later in this chapter. Probably his best-known work is "The Adult Learner" (Knowles, 1973).

## Paulo Freire (1921 - 1997)

Freire was primarily concerned with the empowerment of learners and is best-known for his attack on what he called the "banking" concept of education (in which the student was viewed as an empty account to be filled by the teacher).

He suggested that we should think in terms of "teacher-student" and "student-teacher"; by way of a teacher who learns and a learner who teaches as the basic roles of classroom participation. He also emphasised the importance of linking education with the "real world experiences" of learners. Freire made a number of important theoretical innovations that have had a considerable impact on the development of educational practice, and on informal education and popular education in particular. His best-known work is "Pedagogy of the Oppressed" (Freire, 1972).

## David Kolb (1939 - )

He formulated a theory of learning that combined learning styles and a learning cycle. His interest focuses on exploring the processes involved in making sense of concrete experiences and the different styles of learning that may be involved. Following on from Kolb's work there has been a growing literature around experiential learning and this is indicative of greater attention to this area by practitioners, particularly in the area of higher education. We will outline Kolb's Learning Styles and Learning Cycle later in this chapter.

## Howard Gardner (1943 - )

Gardner is best known for his "Multiple Intelligences Theory", which proposes that there are a number of distinct forms of intelligence that each individual possesses in varying degrees (Gardner, 1983). He proposes seven primary forms: linguistic; musical; logical-mathematical; spatial; bodily-kinaesthetic; intrapersonal (e.g. insight, meta-cognition) and interpersonal (e.g. social skills). He has subsequently discussed three further forms of intelligence: naturalist; spiritualist; and existentialist. According to Gardner, seven kinds of intelligence would allow seven ways to teach, rather than one and learning/teaching may be focused on the particular intelligences of each person. This has led many educators to develop new approaches that might better meet the needs of a range of learners.

## Stephen Brookfield (1949 - )

His focus is primarily on "self-directed learning", which he sees as a process by which adults take control of their own learning. This approach features learners: setting their own goals; locating appropriate resources; deciding on which learning method to use; and evaluating their own progress. He also asks some critical questions about this process, including: Is self-directed learning always appropriate? At what stage are individuals ready to become self-directed in their own learning? What exactly is the role of the tutor/trainer/facilitator in encouraging and assisting with self-directed learning?

## PHILOSOPHICAL APPROACHES TO ADULT LEARNING

Many approaches to adult learning have been adopted over time. Research and practical experiences have paved the way for the development of theories about how adult learning should be approached and we will now set out some of these.

## Classical / Traditional

The primary focus of the classical/traditional approach is on the development and/or expansion of knowledge. The content itself is viewed as important; it is pre-determined and is followed in a structured fashion. In addition, the learning process is based on memorisation and rule-learning, while absolute answers exist in all areas of the knowledge covered. It is considered a trainer-centred approach, whereby the trainer is perceived as the subject-matter expert and directs the learning process. Learners are largely inert and are not expected to question the veracity of the content.

▶ Common training methods: presentations; lectures; talks; and guided reading.
▶ Associated with: Plato, Aristotle (Greek antiquity).

## Behaviourist

The primary focus of the behaviourist approach is on the development of specific observable behaviours and skills. The content is pre-determined and is followed closely in a structured manner. Three stages are featured in the learning process: 1. Introduction of a stimulus (e.g. trainer shows the learner a new skill); 2. Response (e.g. trainer gets the learner to try out the new skill); and 3. Reinforcement (e.g. trainer praises the learner if the skill is performed correctly). In this situation, the trainer is a skilled practitioner who directs the learning process and provides feedback. Trainees are involved in practising new skills/trial & error and receiving feedback.

▶ Common training methods: instruction/demonstration, practice, feedback.
▶ Associated with the work of: Skinner, Thorndike, and Watson (among others).

## Cognitive / Progressive

In this approach, attention is placed on developing critical thinking/reasoning/problem-solving/decision-making capabilities. The content may be pre-determined in a general sense but is open to adaptation and change. Learning processes follow a route of exploration and discovery, while intuition, imagination, perception, and mental mapping are also seen as important. Truth and knowledge are not seen as absolutes but as subjective and personal. The role of the trainer is to organise and guide the learning process and to evaluate progress. Trainees are engaged in a variety of activities, reviews and discussions.

▶ Common training methods: case studies; exercises; experimentation; and review discussions.
▶ Associated with the work of: Kohler, Wertheimer, Dewey, and Piaget (among others).

## Experiential / Humanistic

The experiential/humanistic approach to learning may be focused on developing K.S.A. or on general/personal development. The content may be pre-determined or it may be agreed between trainer and trainees. The learning process involves the active participation of learners, the sharing of experiences and active reflection. The trainer facilitates the learning process and helps trainees to learn. Trainees are involved in a variety of activities, practice and discussion.

▸ Common methods: learning by doing, group tasks, discussion, and question and answer sessions.

▸ Associated with the work of: Rogers, Knowles, and Kolb (among others).

Further to the four philosophical approaches to learning set out above, Elias & Merriam (1995) have identified: Liberal (linked to Classical approach); Radical (drawing on Marxism and anarchism and stressing the role of education in bringing about major social change); and Analytical (based on logical positivism and British analytic philosophy and, in short, seeing science as the model for all knowledge and truth). However, we will remain with the four main approaches as they are deemed to have greater relevance to learning in a work and an organisational context.

Some of the philosophical approaches summarised above differ in fundamental ways from others, but we can also see ways in which some tend to have overlapping elements. It is important to understand that all of these approaches have a place in the learning process in organisations. In moving on to look at various theories about how adults learn, we will occasionally link back to their genesis in these philosophical approaches.



## ADULT LEARNING THEORIES

Two contrasting models of adult learning are represented by "pedagogy" and "andragogy". Let us review each in turn before discussing their relevance in training situations.

## Pedagogy

Derived from two Greek words "paid/ped" meaning "child" and "agogus" meaning "leader of", pedagogy represents an approach to learning whereby the teacher leads the children (pupils). For many centuries, this was the standard model of teaching adopted in educational institutions. Let us now turn to pedagogy from an adult perspective. At the outset, let us clarify some terminology. Henceforth, we will not use the terms "teacher", "teaching" or "pupil" as these are deemed as more apt for school-room situations.

If the term "student" is used, it will refer to an adult who is undertaking a specific academic programme (adult student is quite a common term nowadays in any case). It is our intention to primarily use the terms "trainer" or "tutor" and "trainee" or "learner" when referring to those engaged in the learning process.

- The early part of the 20th century witnessed the spread of adult education and training (particularly in the U.S.). With little else to draw from, trainers adopted the pedagogical model and it can be directly related to the "Classical/Traditional" approach to learning. Knowles (1973) and Garavan et al (2003), among others, propose that this method is based on a number of assumptions, including:
- Learners only need to know that they must learn the subject-matter; how it will apply to their work and lives is of no concern to them.
- Trainers make all the decisions and perceive learners as dependent on their expertise.
- Therefore, learners become submissive "receivers" and adopt a "dependency" persona.
- Learners' previous experiences are given little value or reference; the experience that counts comes from the trainer.
- Learners become ready to learn what and when the trainer tells them; successfully completing the training is their main goal.
- Learning means acquiring subject-matter content; learning experiences are thus focused exclusively on the subject-matter content.

In summary, it is suggested that the pedagogical approach is trainer-centred and focused on content, whereby the trainee is considered an empty vessel and is not actively involved.

## Andragogy

This title is also derived from two Greek words, "andr", meaning "man"; thus, roughly translate into "man-leading" and is proposed as a way of helping adults to learn. The term has been traced back to a German grammar schoolteacher Alexander Kapp, but it has been popularised in recent years mainly through its adoption by Malcolm Knowles. The andragogical method can be linked to the "Experiential/Humanistic" approach to learning.

Knowles (1973) and Garavan et al (2003), among others, propose that this method is based on a number of assumptions, including:

- Adults need to know why they need to learn something before committing themselves to the learning process. The acronym WIIFM (what's in it for me) typifies this notion.
- Adults like to be responsible for their own decisions – they often resent situations where they feel the trainer is imposing their will on them.
- Many adult learners carry years of experiences into a learning situation – tapping into and sharing this learning resource can improve the quality of the learning experience for all involved (including the trainer).
- In their orientation toward learning, adults tend to be life-centred, task-centred and/or problem-centred – activities that reflect this will assist learning.

## Pedagogy v Andragogy

When first introduced to the contrasting assumptions of pedagogy and andragogy, there is often a tendency for those involved in learning about T & D to favour the andragogical approach. One might add that being adult learners themselves makes this hardly unusual. However, some caution must be added in this regard.

We have linked pedagogy to the "Classical/Traditional" philosophical approach to learning. We therefore need to question if all the assumptions associated with pedagogy are pertinent in every adult learning situation. In a similar vein, we need to ask the same question about andragogy, which we have linked to the "Experiential/Humanist" philosophical approach.

It can be suggested that there are many situations where an experiential approach may not be the most appropriate option. As an example (in an Irish context) reflect on the following features of the "Safe-Pass" programme completed by thousands of construction workers:

▶ It had a time limit of one day.
▶ Due to demand, it often had large cohorts.
▶ English was not the first language of many participants.
▶ It was mandatory.
▶ Content was "king" – this is what you required to pass the end of programme "test".



Under these circumstances, the following assumptions can reasonably be put forward (at least for debate):

▶ Learners only needed to know that they must learn the subject-matter. The sole objective was to acquire the Safe-Pass Card, without which they could not take up employment in the booming construction industry.
▶ The trainer made all decisions and perceived learners as dependent on their expertise.
▶ Learners were quite happy to act as submissive "receivers" and adopt a "dependency" persona.
▶ Learners' previous experiences were given little value or reference. Learners had no interest in sharing their own or listening to others' experiences.
▶ Learners became ready to learn what and when the trainer told them. Again, completing the training was learners' main goal.
▶ Learning meant acquiring subject-matter content. Learners actually welcomed the exclusive focus of the learning experience on the subject-matter content.

So, in this instance, was adopting a pedagogical method more in tune with the needs of the adult learners concerned? It can be suggested that it probably was.

However, the key factor revealed by this example is that a range of circumstances come into play when considering the most appropriate method to follow. Certainly, we should take into account the perceived benefits to the learner and the learning process when making a choice. A strong argument can be made that in many circumstances, these will accrue at a higher level by adopting an andragogical approach. Indeed, a significant amount of current training practice is based to a certain degree on following an andragogical methodology (Garavan, et al, 2003).

## Laws Of Learning

Different versions of the "Laws of Learning" may be found in publications and across cyberspace. The genesis of the most common set of these can be strongly linked to behaviourist theory and this is where we will focus our initial attention. Three primary laws of learning are indicated:

1) **Law of Effect –** this law involves the emotional reaction of the learner and suggests that learning is strengthened when it triggers a pleasing response (reward). On the other hand, it will be weakened by a response that is deemed negative or unpleasant (punishment) by the learner. It is important to remember here that the law refers to learning and not to actions – an individual's willingness to perform a specific action may in fact be strengthened by the threat of some form of punishment.

A critique of this law might be supported by the following example. An individual learning to ride a bicycle is told (by the trainer) not to apply the front brake abruptly. However, the individual panics when trying to slow down and does exactly this. In most situations this will lead to nasty consequences (physically as well as emotionally) but will surely strengthen rather than weaken the individual's learning.

Despite this, the law of effect does provide useful guidelines for trainer/trainee interactions, particularly with regard to the provision of feedback (which we will cover in detail at a later stage).

2) **Law of Exercise –** this is related the old saying "practice makes perfect" but embraces a wider context. It proposes that effective repetition of a task helps to improve subsequent performance. It also suggests that if skills are not exercised, they may become obsolete.

The law of exercise brings to mind an oft-asked question: how much practice should be undertaken before a trainer can be confident that a trainee is proficient in a task? The answer is that it depends on a number of factors and a useful guide is to link the answer to a DIF (Difficulty, Importance, and Frequency) analysis.

In other words:
How difficult is the task considered? How important is it perceived to be?
How frequently will it be undertaken by the trainee?
For example, if a task is considered:
 (a)  Low on a scale of difficulty.
 (b)  Low on a scale of importance; and
 (c)  High in terms of frequency, it may be suggested that minimal practice is required. However, if a task is considered:
    (a)  High on a scale of difficulty.
    (b)  High on a scale of importance; and
    (c)  Low in terms of frequency, it may be suggested that maximum practice is required, and/or that refresher training with practice is undertaken periodically.

3) **Law of Readiness –** concerned with a trainee's motivational goals, this law states that learning will be more effective if the learner is physically and mentally ready to receive learning stimuli. In other words, trainees who have a clear purpose and reason for learning are more willing participants in the learning process.

Further laws of learning have also been proposed, including:

▸ **Law of Intensity –** here, it is put forward that the closer a learning experience is to reality, the greater the likelihood will exist that a change in behaviour (learning) will occur. In addition, a vivid, dramatic or exciting learning experience will help to capture the interest of trainees and enhance the retention of learning.

▸ **Law of Primacy –** this emphasises the strong impression created by seeing a task demonstrated for the first time. It stresses the importance of this being done correctly first time around; otherwise, trainees will be forced to unlearn what they have originally taken on board. This law can be linked with a common training maxim – never begin by showing a trainee an incorrect way to perform a task (e.g. stating "some people perform the task like this... now that is not the correct way... this is how it should be performed...").

▸ **Law of Facilitation and Interference –** reflects a situation where previous learning may assist or hinder current learning. Two simple examples might serve to highlight this law best:

  • An individual with previous experience of driving a car can readily relate to certain controls (e.g., clutch, brake, etc.) if currently learning to drive a bus and this may facilitate one aspect at least of their new learning.

  • The same individual may find that the controls for lights and windscreen wipers are positioned differently on the bus – their first instinct in a situation where either of these is required may be to flick the incorrect controls even if they have learned otherwise.

## Kinds of Learning

Different kinds of learning have been identified and discussed. We will now adapt and summarise the contributions of Rogers (2003) and Gibbons (1990) to this area.

▸ **Natural learning –** this occurs as individuals interact with their environment and is an ongoing process. It has been described as unconscious or implicit learning. However, as the learner is in fact conscious, it has been better described as task-conscious learning. This means that individuals are conscious of the task they are performing but are unaware of the learning they are gaining as a result. This kind of learning commonly happens through an individual's experiences.

▸ **Formal learning –** this is reflected in a situation where an individual's learning is facilitated or guided rather than accumulated through experience. In this circumstance, the individual is conscious of involvement in a learning experience. This kind of learning is generally accrued by an individual being: taught (knowledge); instructed (skills); and/or assigned learning tasks (knowledge and/or skills).

▸ **Personal learning –** depending on the approach taken with formal learning, there may be some overlap with personal learning. It specifically refers to learning that is not just intentional and conscious, but also self-directed. In this category, learning may be initiated by experiences; trial and error; observation; and/or perception.

## Learning Cycle

We mentioned during our review of adult learning theorists that we would return to the Learning Cycle formulated by Kolb (Kolb, 1974). His theory of learning combined learning styles and a learning cycle. This cycle is based on a four-stage model representing the learning process, as follows (we have inserted practical examples in brackets):

▸ Concrete experience (e.g. attending an interview).
▸ Reflective observation (e.g. formally reflecting on what went well during the interview and on what might have gone better).
▸ Abstract conceptualisation (e.g. forming ideas about how to perform better at the next interview).
▸ Active experimentation (e.g. putting ideas into practice, which leads us back to the concrete experience of attending another interview).

The learning cycle can begin at any one of the four points and it should really be approached as a continuous spiral. However, it may also be suggested that the learning process most often begins with a person carrying out a particular action and then tracing the effect of the action in that situation. As observed by Garavan et al (1995) the learning cycle

includes inductive learning (e.g. drawing a conclusion from an experience; a guiding principle) and deductive learning (e.g. applying a guiding principle in a practical situation).

## Learning Styles

A number of viewpoints have been put forward in relation to trainees' personal "learning styles" and we will now look at some of these.

**(a) Kolb (1974)**

Kolb identified four learning styles which he integrated with his Learning Cycle Model (see Appendix I) and defined as:

1. **Diverging (feeling and watching) –** this style emphasizes an innovative and imaginative approach to doing things. People with this learning style tend to:
   ‣ be sensitive, emotional and interested in people.
   ‣ prefer to observe and reflect rather than do.
   ‣ gather information and use imagination to solve problems.
   ‣ have broad cultural interests (the arts); and
   ‣ like to work in groups, listen with an open mind and receive personal feedback.

2. **Assimilating (watching and thinking) –** here, learning preference is toward a concise, logical approach based on practical values. People with this learning style tend to:
   ‣ be less focused on people and more focused on ideas and concepts.
   ‣ pull different observations and thoughts into an integrated whole.
   ‣ like designing projects and experiments; and
   ‣ prefer lectures, exploring analytical models and having time to think things through.

3. **Converging (thinking and doing) –** this learning style emphasises the practical application of ideas and solving problems. People with this learning style tend to:
   ‣ prefer technical tasks and are less concerned with people and interpersonal issues.
   ‣ like decision-making and problem-solving.
   ‣ can solve problems and make decisions by finding solutions to questions; and
   ‣ like experimenting with new ideas and working with practical applications.

4. **Accommodating (doing and feeling) –** this category leans toward a hands-on approach, relying on intuition rather than logic. People with this learning style tend to:
   ‣ be at ease with other people.
   ‣ use trial and error rather than thought and reflection.
   ‣ be good at adapting to changing circumstances.
   ‣ use other people's analysis and prefer to take a practical, experiential approach.
   ‣ be attracted to new challenges and experiences, and to carrying out plans.
   ‣ like setting targets and actively trying different ways to achieve an objective.

**(b) Honey & Mumford (1995) have divided learning styles into four specific categories, as follows:**
Activist / Pragmatist / Reflector / Theorist

Trainees will rarely display a total leaning towards one of these Learning Styles. Instead, it is likely that they will have varying levels of preference for each. It is important, therefore, to consider the existence of such preferences when planning and delivering learning activities. The following, therefore, represent *guidelines* for this purpose (adapted from Buckley & Caple, 1990).

1. **Activists** – are likely to learn and develop best through:
   ‣ new experiences and problems and being thrown in at the deep end.
   ‣ short, "here & now" activities, such as business games.
   ‣ competitive teamwork tasks; and
   ‣ being in the limelight – leading discussions, and giving presentations.

   Are likely to learn and develop least from:
   ‣ being passive – listening, reading, watching.
   ‣ analysing and interpreting data; and
   ‣ repeating things, attending to detail or tying up loose ends.

2. **Pragmatists** – are likely to learn and develop best through:
   ‣ being shown techniques with a practical application.
   ‣ having immediate opportunities to implement what they have learned; and
   ‣ concentrating on practical issues.

   Are likely to learn and develop least from:
   ‣ material that is not related to an immediate need or practical benefit.
   ‣ learning activities they perceive as distanced from reality; and
   ‣ learning content that contains lots of theoretical material.

3. **Reflectors** – are likely to learn and develop best from:
   ‣ watching and thinking, before taking action.
   ‣ having time to prepare and not having to work to tight deadlines.
   ‣ exchanging views without perceived danger or pressure; and
   ‣ being involved in structured learning activities.

   Are likely to learn and develop least from:
   ‣ being forced into the forefront or limelight or to act as leader.
   ‣ being required to make instant decisions or to take instant action; and
   ‣ having to take short-cuts or do a superficial job.

4. **Theorists** – are likely to learn and develop best from:
   ‣ content involving systems, models, concepts or theories.
   ‣ having time to examine associations and inter-relationships.
   ‣ opportunities to question and probe the logic, assumptions, and methodology behind something; and
   ‣ considering ideas and concepts that emphasise rationality and logic.

   Are likely to learn and develop least from:
   ‣ activities with no apparent purpose (especially if emotions/feelings are involved).
   ‣ unstructured activities, where uncertainty and ambiguity are high; and
   ‣ subject matter which they consider methodologically unsound.

**(c) VAK Learning Styles Model**

The VAK learning styles model suggests that most people can be divided into one of three preferred styles of learning. These three styles are as follows (there is no right or wrong learning style):

▸ **Visual –** someone with this learning style has a preference for seen or observed things, including pictures, diagrams, demonstrations, displays, handouts, films, flipchart, etc. They tend to use phrases such as "show me", "let's have a look at that" and will probably be best able to perform a new task after reading the instructions or watching someone else do it first. Visual style learners like to work from lists and written directions and instructions.

▸ **Auditory –** someone with this learning style has a preference for the transfer of information through listening: to the spoken word, of self or others, of sounds and noises. They may use phrases such as "tell me", "let's talk it over" and will probably be best able to perform a new task after listening to instructions from an expert. Auditory style learners are usually happy receiving spoken instructions over the telephone and can remember all the words to songs that they hear! Auditory style learners are usually happy receiving spoken instructions over the telephone and can remember all the words to songs that they hear!

▸ **Kinaesthetic –** someone with this learning style has a preference for physical experience, touching, feeling, holding, doing, and practical hands-on experiences. They may use phrases such as "let me try", "how do you feel?" and will probably be best able to perform a new task by going ahead and trying it out, learning as they go. Kinaesthetic style learners commonly like to experiment, hands-on (and never look at the instructions first!).

People commonly have a main preferred learning style, but this will probably be parts of all three. Some people have a very strong preference, while others have a more even mixture of two or, less commonly, three styles. (Note: see VAK Learning Styles Survey a VAK Learning Styles Survey (ww.nwlink.com) ).

## Learning Styles Summary

It is important to remember that "Learning Styles" should be taken as a guideline only – learners should not be "labelled" and placed inside "Learning Style" boxes. It is quite possible that a "theorist" would enjoy learning through problem-solving or games, that a "pragmatist" would enjoy being intellectually stretched, and so forth. In addition, with some types of training there are limitations with the extent to which trainers can cater for a full range of learning styles.

It must also be emphasised that trainers may have preferred styles of learning (and indeed of delivering training). Therefore, care must be taken to ensure that personal preferences are not reflected in bias towards a particular method of training delivery. This should always be considered from an effective learning perspective, and in line with needs of all trainees(s).

## Learning to Learn

A number of commentators (Buckley and Caple, 1990; Knowles, 1974) have identified benefits for learners who acquire "learning to learn" skills. It is suggested they:

▸ Become more active learners.
▸ Take greater responsibility for their own learning.
▸ Develop habits of learning and concentration, and an openness to new experiences.
▸ Become more flexible in their approach to new learning challenges.

## SUMMARY

The field of adult learning is long and wide – in this chapter we have endeavoured to set out the main theorists, philosophical approaches and theories. It is important to mention that many of the theories discussed, and lots of further theories, are the subject of ongoing debate about the extent of their validity and utility. However, this body of knowledge has led to the development of a number of learning principles and conditions. We will outline these in Chapter 7: Designing Training and in Chapter 8: Role and Competences of the Trainer.

# 4

# Systematic Training and Instructional Systems Design

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify the four stages in the systematic training model.

▸ Explain the five phases in the ADDIE model of instructional systems design.

▸ Assess a range of Instructional Systems Design (ISD) models, including ADDIE, Rapid Instructional Design (RID), and rapid prototyping.

▸ Explain the Human Performance Technology (HPT) Model.

# INTRODUCTION

In this chapter we will discuss a systematic approach to T & D and examine a number of instructional design models. Initially, we will focus on the steps in the "traditional" systematic approach before examining how this has been expanded in various approaches to, and models of, instructional design. It is important to be aware that this chapter sets the context for the wide range of elements that surround the implementation of T & D activities in organisations.

# SYSTEMATIC TRAINING

What is meant by the term "systematic" when related to T & D.? There may be some confusion about the difference between a "systems" approach to T & D and a "systematic" approach. In simple terms, a system is a collection of parts (or sub-systems) where each part can affect how other parts work. In an organisational sense, T & D may be classed as a sub-system. However, for our purposes, "SAT" which formally represents "Systems Approach to Training" is viewed as interchangeable with a "Systematic" approach.

The fundamental steps in the systematic approach to training are: Identify Training Needs; Design Training; Conduct Training; and Evaluate Training. This approach is commonly presented as shown in Fig. 4.1.

Fig. 4.1 ▶ Systematic Training Approach



An important feature of the systematic approach is the emphasis it places on T & D in organisations as a pro- active planned process and as a continuous cycle (rather than a reactive, ad-hoc practice that comes into play when a particular problem is encountered). It also portrays these stages in the cycle as part of a "whole" process whereby a weakness at any of the stages will impact on the total approach.

The basic systematic training model is seen as a useful starting point in adopting a formal approach to T & D. However, as a model of T & D practice, it has been subject to some scrutiny and criticism primarily because it does not include reference to organisational factors that may impact on its effectiveness (see Garavan et al, 1995 for related discussion and a range of models of T & D practice).

An expanded version of the systematic model is presented by Buckley & Caple (1990). It encompasses 14 stages (see following) with connectivity and feedback loops.

1) Establish terms of reference.
2) Further investigation.
3) Knowledge, skills and attitudes (KSA) analysis.
4) Analysis of the training population.
5) Training needs and content analysis.
6) Develop criterion measures.
7) Prepare training objectives.
8) Consider principles of learning and motivation.
9) Consider and select training methods.
10) Design and pilot training.
11) Deliver the training.
12) Internal validation.
13) Application.
14) External monitoring (validation & evaluation) of training.

The systematic approach to T & D is reflected in a number of Instructional Systems Design Models and we will next review a range of these.

# INSTRUCTIONAL SYSTEMS DESIGN (ISD)

Instructional design has been described as a technology for the development of learning experiences and environments that promote the acquisition of specific knowledge and skills (Merrill et al, 1996). ISD is therefore focused on the design of training interventions rather than a systematic approach to T & D per se. However, it does engage the basic framework and stages of the systematic approach. Many models of instructional systems design have been developed and we will now outline some of those most commonly utilised.

**ADDIE Model** – this is a generic foundation stone for many models of ISD and embraces five phases:

1. **Analyse** – What is the performance problem? Can training help? How are tasks performed? What knowledge and skills are required?

2. **Design** – What are the learning objectives? Who is the training aimed at? What type of instruction will be most appropriate? Are there specific considerations regarding sequence and structure? How will learning be tested?

3. **Develop** – What content should be covered? What are the most appropriate training methods? What type of learning activities will be suitable? What type of learning aids should be employed?

4. **Implement** – Who will deliver the training? How many trainees are involved? What location and facilities will be required? Are there regulatory or legal considerations? What administrative details need attention? What documentation/records must be completed?

5. **Evaluate** – What evaluation model/process will be utilised? Is process considered formative, summative or both? What documentation is required?

It is perhaps judicious to state at this juncture that detailed coverage of these stages will be featured through the rest of this publication. A plethora of diagrammatic representations of the ADDIE model may be found but a basic model is presented in the following figure 4.2.

**Fig. 4.2** ▶ Basic ISD Model (Beckshi & Doty, 2000)
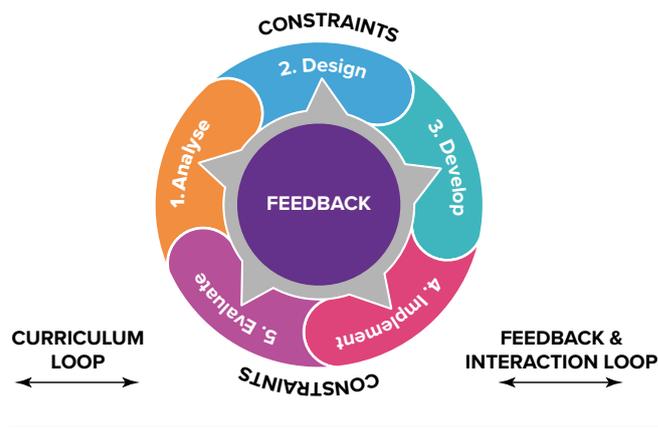


## Garavan et al, (2003) Model

An integrated training design model is proposed by Garavan et al is (2003). In this instance, while the design components are largely in accord with the stages of the traditional systematic training model, three broad factors: Organisational Context; Learner Characteristics; and T & D Context (Note: Printed in text as "Training Content") sit above, and are seen as inputs to, the training design process itself.

This highlights one deficit in the systematic training approach whereby the three factors suggested here are not explicitly taken into account.

## Rapid Instructional Design

Advances on the ISD model have been proposed from many quarters. One such offering comes in the guise of Rapid Instructional Design (RID). Defining RID is a problematic affair as different emphases may be found on its basis and utility. Let us use two approaches to highlight this.

(a) **A focus on speeding up the design process**. As expressed by Thiagarajan (2000), RID represents "a collection of strategies for quickly producing instructional packages that enable a specific group of learners to achieve a set of specific instructional objectives". He proposes ten strategies and a set of associated guidelines for RID. For our purposes let us confine ourselves to listing the ten strategies, as follows:

1) Speed up the process.
2) Use a partial process.
3) Incorporate existing instructional materials.
4) Incorporate existing non-instructional materials.
5) Use templates.
6) Use computers and recording devices.
7) Involve more people.
8) Make efficient use of subject matter experts.
9) Involve trainees in speeding up instruction.
10) Use performance support systems.

(b) **A focus on accelerated learning**. According to Meier (2000) RID incorporates accelerated learning techniques that strives to design the learning environment with more practice, feedback, and experience rather than presentations. It is based on four phases, as follows:

1) Preparation (arousing of interest).
2) Presentation (the initial encounter with new knowledge and skills).
3) Practice (the integration of new knowledge and/or skills).
4) Performance (the application of new knowledge and/or skills to the work situation).

This reflects a shortened version of Gagne's (1985) nine steps of instruction which we will elaborate on at a later stage. It has been suggested that since the RID model lacks suitable replacements for the analysing and evaluating phases of the learning programmes it creates, it should be thought of as a model that plugs into ISD, rather than a replacement for it.

## Rapid Prototyping

Rapid prototyping is associated with instructional design related to e-learning (though not exclusively so – see www.guyboulet.net for a comparison of classic ISD models and rapid prototyping). In general, rapid prototyping involves the development of a prototype (of a learning media) as a first step. Subsequently, design project teams (commonly consisting of subject matter experts, instructional designers, programmers, graphic designers, etc.) engage in an ongoing process of analysis, review, and revision (see Fig. 4.3).

**Fig. 4.3** ▸ Typical Rapid Prototyping Model
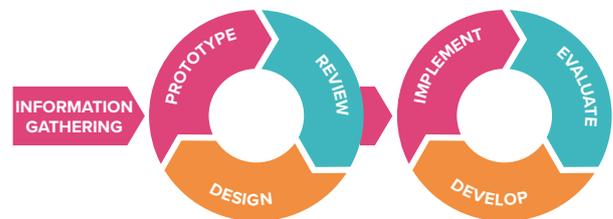


According to Tripp and Bichelmeyer (1990), rapid prototyping may be used to:

▸ Test out a user interface.
▸ Test the database structure and flow of information in a training system.
▸ Test the effectiveness and appeal of a particular instructional strategy.
▸ Develop a model case or practice exercise that can serve as a template for others.
▸ Give clients and sponsors a more concrete model of the intended instructional product.
▸ Get user feedback and reactions to two competing approaches.

Potential advantages and disadvantages of rapid prototyping in instructional design have been suggested by Whitten et al (1989) as follows:

**Potential advantages**

▸ It encourages and requires active student participation in the design process.

▸ Iteration (repeating the process) and change are natural consequences of instructional systems development.

▸ Errors may be detected earlier.

▸ It accelerates the development cycle.

▸ Clients change their minds and may be unsure until they see a design implemented.

**Potential disadvantages**

▸ It can lead to a design-by-repair philosophy, which may be an excuse for lack of discipline.

▸ It does not eliminate the need for front end analysis; it cannot help if the situation is not amenable to instructional design.

▸ It cannot substitute completely for a paper analysis.

▸ There may be instructional design problems that are not addressed by prototyping.

▸ When prototyping an instructional package, creeping featurism (e.g. whistles and bells) may get out of control.

# HUMAN PERFORMANCE TECHNOLOGY

Although the Human Performance Technology (HPT) Model is focused on performance systems rather than instructional systems, the increasingly perceived link between T & D and performance improvement suggests that we should include a brief overview of HPT here (www.ispi.org – Note: A comprehensive HPT model may be accessed through this site).

The terms have been defined thus:

▸ **Human –** the individuals that make up an organisation.

▸ **Performance –** activities and measurable outcomes.

▸ **Technology –** a systematic and systemic approach to solving problems.

According to the International Society for Performance Improvement (ISPI – www.ispi.org), HPT is a systematic approach to improving productivity and competence. It uses a set of methods and procedures, and a strategy for solving problems, for realising opportunities related to the performance of people. It is a process of selection; analysis; design; development; implementation; and evaluation of programmes to most cost-effectively influence human behaviour and accomplishment. Three fundamental processes are involved: performance analysis; cause analysis; and intervention selection. These may be applied to individuals, small groups and organisations.

The HPT process begins with a comparison of the present and desired levels of individual and organisational performance to identify performance gaps. This is followed by a cause analysis to determine what impact the work environment (information, resources, and incentives) and the people (motives, individual capacity, and skills) are having on performance. Once the performance gap and the causes have been identified, appropriate interventions are designed and developed.

These may include measurement and feedback systems; new tools and equipment; compensation and reward systems; selection and placement of employees; and T & D.

Interventions are then implemented and the change process managed through evaluation after each phase of the process. HPT uses a wide range of interventions that are drawn from many disciplines, including: behaviour psychology; instructional systems design; organisational development; and HRM.

## SUMMARY

In this chapter, we have outlined models and approaches to systematic training, instructional design, rapid instructional design and human performance technology. The models reviewed trace a path for the processes and activities of T & D in organisations. In effect, they set up the "nuts and bolts" of T & D and signpost the beginning of our journey through those processes and activities.

# Training Needs Identification and Analysis

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Explain the nature of a training need and identify factors that influence a potential requirement for training in organisations.

▸ Define training needs analysis (TNA) and outline the benefits of TNA at organisational and individual levels.

▸ Assess a range of approaches to conducting a TNA and list a range of techniques that may be utilised.

▸ Evaluate a range of performance management approaches in identifying training and development needs.

▸ Outline the stages in conducting a TNA.

▸ Conduct a TNA to identify training and development needs at organisational or individual levels.

▸ Identify TNA outcomes in terms of gaps in knowledge, skills and attitudes.

## INTRODUCTION

Before we begin to look at training needs identification and analysis in depth, it should be stated that this is an aspect of T & D that is not undertaken formally or systematically in many organisations. To highlight this, let us present just a few real-life examples from our experiences.

### EXAMPLE 1

In a large organisation, the T & D department sends out a "Training Needs Analysis" questionnaire to all members of its management team. One of the questions asks, "Are you interested in pursuing a business qualification?" Around 30 respondents answer "Yes". A programme offering a formal business qualification is organised and all 30 are enrolled by the organisation. At the conclusion of the programme, only six candidates successfully qualify – the other 24 have dropped out along the way.

‣ **Question:** Was there a training need in the first place, and if so, on what evidence?

‣ **Answer:** Who knows? It certainly seems foolhardy to support a rationale behind the organisation of a formal business qualification for 30 members of staff on the basis of an affirmative response to a questionnaire.

### EXAMPLE 2

In a manufacturing organisation, the performance of its operators is monitored on an ongoing basis. If an operator's performance is consistently below the required standard over a certain period of time, it is obligatory for that operator to repeat the on-the-job training undertaken before originally taking up the job in question.

‣ **Question:** Does such an operator need re-training and if so on what basis?

‣ **Answer:** Possibly, but also possibly not. Further investigation would seem the appropriate response in this situation to determine: (a) the root cause of the poor performance; and (b) is training part of the solution.

### EXAMPLE 3

A group of team leaders working in a very busy service-based organisation are having difficulty maintaining schedules despite working "flat out" for 12 hours a day. The general manager insists that they attend a time management training programme.

‣ **Question:** Is there a training need and if so on what basis?

‣ **Answer:** Again, possibly, but also possibly not. Further investigation is suggested in order to ascertain: (a) the root cause of the missed schedules; (b) if training is part of the solution; and if so (c) the specific nature of the training required.

**EXAMPLE 4**

A training manager meets with senior departmental managers to understand what training is required in the organisation over the following 12 months. Subsequent to a short discussion on the inconsistency of performance reviews, it was agreed that everyone in the organisation should attend refresher training on managing performance.

▸ **Question:** Is there a training need across the whole organisation? If so on what basis?

▸ **Answer:** There may be, and there may not be. Again, it is important to analyse using facts and figures to ascertain a) if there is a need in all areas; b) if there is a need in specific areas; and c) if all senior managers agree and support proposals.

We have used just a small portion of poetic license in recalling these actual situations. They reflect the haphazard manner in which identifying training needs has been approached in many organisations – even large organisations with a training function in place.

## WHAT IS A TRAINING NEED?

### Definitions

Various definitions for a "training need" may be found. According to Boydell (1983),

"A training need exists when the application of training will serve to overcome a particular problem/ weakness".

At first glance this seems reasonable; however, it does suggest that a training need is wholly associated with helping to overcome a problem. On the other hand, Garavan et al (2003) define a training need in terms of:

"A need for human performance improvement arising from a deficit or an opportunity that can be met by an appropriate training intervention".

Note the tone of the latter definition which includes "opportunity" as well as "deficit" as a rationale for a training need. A training need is therefore said to exist when a gap is identified between desired and actual performance (or, when the possibility of such a gap arising in the future has been identified), for which training can provide a solution.

Training needs are often described as having a reactive or proactive foundation. In the case of a gap in current performance, and where training can help to remedy the situation, the training need is usually described as reactive; in other words, the need is triggered by a reaction to a problem. By contrast, a proactive training need is associated with a situation where a perceived gap in future performance (again, where training can help to close this gap) is anticipated through a strategic planning process.

In saying this, it is important to be aware that training should not be seen as a solution to every gap in performance or as relevant to every organisational problem or opportunity.

## Levels of Training Need

Traditionally, levels of training need have been classified as:

- **Organisational** – when performance weaknesses or future opportunities are considered to have an impact on an organisation-wide basis.

- **Job/Occupational** – where performance weaknesses or future opportunities are linked to specific roles, groups, or possibly functions/departments. In recent times, an additional level of "Team" is sometimes proposed. For our purposes, this is deemed covered at this level (i.e. specific group).

- **Individual** – where an individual's performance falls below standard due to a gap in knowledge, skills and/or attitudes (KSA), or where a future gap in required KSA may exist.

a plethora of strictures have been applied with regard to entering work sites; wearing personal protective equipment; using particular tools; working with specific equipment; etc. This has driven a need for a range of training interventions designed to ensure legislative obligations are being met.

- **Compliance** – Organisations engaged in certain sectors (e.g. food, pharmaceuticals, healthcare and, much in current vogue, financial services) are obliged to comply with standards set by regulatory bodies. For example, all food businesses are required by law to have a food safety management system in place based on the principles of HACCP (Hazard Analysis & Critical Control Point). Training needs are thus linked to the critical importance of compliance in these instances.

## Training Needs – Triggers

The factors which influence a potential requirement for training have been referred to as triggers of training. These may have a bearing on training needs across all the levels outlined above. Commonly these triggers are seen to include:

- **Organisational Strategic Plans** – These are based on the achievement of organisational goals and objectives. For example, in a business concern, strategic plans may involve consolidation, diversification or re-structuring. They may have implications that involve technological advancement or change, which carry a service and/or quality orientation or that have marketing or profit margins at their core. The type, scope and nature of training needs that may emanate from strategic plans are dependent on the focus of the organisation. A big leap in imagination is not required to visualise the potential impact on training needs in this regard.

- **Legislation** – Changes in legislation represent a major driver of training needs. In recent years a dramatically increased emphasis on health and safety, equality and environmental issues is very evident. For example, in the construction field,

▸ **Change Management/Work Organisation** – An abundance of management initiatives such as Total Quality Management (TQM), Business Process Re-engineering (BPR) and Lean Manufacturing, have blossomed in many organisations. Training needs are associated with the overall change management process and also the instigation of teams and teamwork, project-based work approaches, a focus on structured problem-solving and devolved decision-making (e.g. empowerment).

▸ **Rationalisation and Re-structuring** – Factors such as globalisation, economic and financial fluctuations, and corporate strategies are creating a demand in many organisations for rationalisation and re-structuring. This has heralded a demand for greater work flexibility and multi-skilling, in tandem with movement toward more flexible working hours, and part-time, temporary and contract- based employment. Resulting training needs include not only cross-training, but also those centred around ensuring improved communications, recruitment, selection and promotion activities.

▸ **Management Information Systems** – To streamline management information, many organisations have introduced comprehensive systems technologies such as SAP (Systems, Applications & Products) or BPCS (Business Planning & Control Systems). The implementation of such systems is commonly linked to the change management process and the obvious associated training needs are seen as wide-ranging and comprehensive.

▸ **Knowledge Management** – Aimed at accumulating maximum value from the intellectual capacity of all its staff members, Knowledge Management (KM) is a process used to create, capture, distribute and apply knowledge for re-use and learning across an organisation. Again, a wide range of training needs may be suggested where KM programmes are being implemented and maintained.

# TRAINING NEEDS ANALYSIS (TNA)

We have examined the background to training needs and the next step is to look at how we identify and analyse these. The process followed to do this is called a "Training Needs Analysis" or TNA for short (sometimes the process is labelled "Training Needs Assessment"). A training needs analysis can be defined as "a systematic process of determining and ordering goals, measuring needs, and deciding on priorities for action" (Garavan et al, 1995). It can also be described as a "process for pinpointing reasons for gaps in performance or a method for identifying new and future performance needs" (Gupta, 1999).

## Potential Benefits

There are many potential benefits for an organisation from carrying out a TNA. The overriding benefit is that it opens up an avenue for the development of appropriate, timely and prioritised interventions focused on maximising the contribution of T & D to the attainment of organisational goals and objectives. It also demonstrates proof of alignment between T & D and organisational strategy while ensuring a greater return on investment in T & D. Involvement in the TNA process can lead to increased commitment of managers across various functions to consequent T & D activities. Further benefits have been put forward by Garavan et al (1995), including:

▸ Helps to expose and ventilate employee discontent, leading to higher levels of job satisfaction, morale and commitment.

▸ Contributes to the identification of "non-training" solutions to problems.

▸ Leads to a range of performance improvement measures (through a general increase in efficiency and effectiveness, savings in time and reductions in waste).

▸ Contributes to the smooth implementation of new technologies and systems.

▸ Provides critical information that helps to guide the training design process.

▸ Produces a logical, documented rationale to justify subsequent actions.

## Potential Barriers / Difficulties

Embarking on a TNA process is far from a straightforward task in many organisations and a number of potential barriers and difficulties may be put forward. If we first isolate the term "analysis", some interesting reasons for associated difficulties are espoused by Rossett (1999), including: analysis is even less interesting to organisational leaders than T & D and they often prefer a quick fix; people already think they know what is required; analysis isn't easy and takes time; and people do not know what analysis is. We could add that the term "analysis" is anathema to some people and is unlikely to conjure up excitement.

Moving on to TNA itself, one fundamental factor is that its success is largely dependent on the expertise of the person conducting the process – in our experiences this expertise is lacking in many organisations. Further difficulties are suggested by Garavan et al (1995), including:

▸ Success is dependent on the support of managers (especially top management).
▸ It may be viewed as simply a paperwork activity and unnecessarily time consuming.
▸ A training intervention may be viewed as an obvious solution so a TNA might be seen as an irrelevant exercise.
▸ It may generate excessive expectations with regard to anticipated outcomes.
▸ Cost may not be seen as an investment as the return can be difficult to measure.
▸ People may be reluctant to provide information that might appear to highlight inadequacies on their behalf.

## TNA APPROACHES AND MODELS

One can uncover a vast array of suggestions about how a TNA should best be approached. For example, Gupta (1999) alone lists six needs assessment models and not all have an immediate attachment to TNA – some take a wider performance analysis focus to begin with. Indeed, Rossett (1999) takes the view that a "Performance Analysis" would be a better starting point before moving on to the TNA phase.

A critical factor in all of this is the level at which a TNA is targeted. Taking this into account, Gupta (1999) goes on to outline four approaches to TNA and suggests that inputs in terms of time and rigour are influenced by the organisational level of analysis required. Thus, different approaches, purposes and outputs are linked to:

▸ Strategic Needs Assessment.
▸ Competency-Based Assessment.
▸ Job & Task Analysis.
▸ Training Needs Assessment.

It is also worth recording 13 questions that should be addressed before deciding on an intervention for an organisational problem, as suggested by Harless (1973) in association with his notion of "Front-End Analysis":

1) Do we have a problem?
2) Do we have a performance problem?
3) How will we know when the problem is solved?
4) What is the performance problem?
5) Should we allocate resources to resolve it?
6) What are the possible causes of the problem?
7) What evidence bears on each possibility?
8) What is the probable cause?
9) What general type of solution is indicated?
10) What are the alternate sub-classes of solution?
11) What are the costs, effects and development times of each solution?
12) What are the constraints?
13) What are the overall goals?

While these questions may have a reactive orientation, they are seen as a useful guide in ensuring that decisions about whether or not training is part of a solution are taken following careful analysis. Bearing all this background information in mind, we will now present three models incorporating specific steps to follow when undertaking a TNA.

**Step Four – Gather Data**

▸ Identifying desired performance standards.

▸ Identifying actual performance standards.

▸ Measuring the gaps.

▸ Measuring the needs at organisational, job and individual level.

**Step Five – Analyse and Verify Data**

▸ Aim to uncover trends.

▸ Verify outcomes with those involved.

▸ Identify real reasons for performance gaps.

▸ Identify needs.

▸ Prioritise needs.

**Step Six – Generate Alternative Solutions**

▸ Training/non-training (refer to relevant people).

**Step Seven – Consider All Other Influences**

▸ The organisation – culture, objectives, systems.

▸ The external environment – legal, competitive, economic and technical trends.

▸ The training policy – implications for scope and resources.

▸ The people – current standards, ability, understanding and motivation.

▸ The dividends of training – atmosphere, learning, attitude.

**Step Eight – Set Training Priorities**

▸ Prioritise training needs.

▸ Prioritise training recommendations.

## (a) Eight Step Model (Garavan et al, 1995)

**Step One – Determine Scope & Purpose**

▸ Objectives.

▸ Why data is needed.

▸ Constraints.

▸ Scope.

▸ Authority.

**Step Two – Identify Data Need**

▸ Data to identify goals (performance standards).

▸ Data to prioritise goals and to identify needs (the gaps, data to prioritise needs and to identify solutions).

**Step Three – Design Data Gathering Approach**

▸ Data sources.

▸ Data collection methods, tools & techniques.

## (b) Six Step Model (www.itsinc-us.com)

**Step One – Identify Problem Needs**

▸ Determine circumstance for training request.

▸ Identify potential skill gap.

▸ Set objectives.

**Step Two – Determine Design of Needs Analysis**
▸ Establish data-collection method selection criteria.
▸ Assess advantages and disadvantages for methods.
▸ Choose data-collection methods.

**Step Three – Collect Data**
▸ Conduct interviews.
▸ Administer surveys and questionnaires.
▸ Conduct focus groups.
▸ Observe people at work.
▸ Review documents.

**Step Four – Analyse Data**
▸ Conduct qualitative or quantitative analysis.
▸ Determine solutions and recommendations.

**Step Five – Provide Feedback**
▸ Write report and make oral presentation.
▸ Determine next step – training needed?

**Step Six – Develop Action Plan**
▸ Use results as the basis for training design, development and evaluation.

## (c) Four Step Model (Garavan et al, 2003)

**Step One – Preparation of the Review**
▸ Specify the objectives.
▸ Identify data sources.
▸ Identify data-collection methods.

**Step Two – Collection & Initial Interpretation of Data**
▸ Collect data and carry out initial interpretation.
▸ Identify (and isolate) problems with a non-training solution.

**Step Three – Analysis of Data**
▸ Perform a detailed analysis and interpretation of data collected.
▸ Identify key areas where training is an appropriate solution.
▸ Develop recommendations.

**Step Four – Identification of T & D Priorities**
▸ Identify training priorities.
▸ Preparation and implementation of recommendations.

# CHOOSING AND USING A TNA MODEL

One might well ask – which of these models is best or most appropriate? As we have outlined previously in this chapter, there are so many factors involved that a simple choice is not proffered. It may be suggested that in most circumstances a mix of the stages embraced in these models would be most useful. The following factors in particular should be taken into account: required level(s) of analysis; size of the organisation; expertise available; organisational culture and structure; management support; and the prevailing ethos of T & D.

We will now set out a detailed guide to undertaking a TNA. We must stress that this is a guide only – varying circumstances may impinge on whether all the elements included here are required/or if further elements steps should be built in. To avoid confusion and to differentiate this guide from the models we have reviewed, we will use the terms "stages" rather than "steps".

**Guide To Undertaking A TNA (Includes material from Garavan et al, 2003/Garavan et al, 1995/ www.itsinc- us.com)**

**Stage 1 – Prepare and Plan**

(a) Establish clear lines of authority.
- ✓ who has initiated and authorised the process?
- ✓ what level of authority will accompany the process?
- ✓ to whom will TNA report be sent?
- ✓ are there elements of confidentiality involved?

(b) Examine current information with regard to the problem/opportunity.
- ✓ what is its nature and scope?
- ✓ what level of analysis is required (organisational, departmental/function/job or individual?)

(c) Set objectives.
- ✓ what is the scope of the process?
- ✓ who are the members of staff covered by the process?
- ✓ what time horizon is set for the process?
- ✓ what is the availability of financial and other resources?
- ✓ what are the agreed outputs of the process?
- ✓ who are the stakeholders in the process?
- ✓ are there specific constraints that must be taken into account?

(d) Devise a plan.
- ✓ what is the nature and extent of data requirements?
- ✓ data sources – what, where, when, who, how (methods/ techniques)?
- ✓ levels of involvement required and/or beneficial (staff members)?

(e) Communicate plan.
- ✓ what staff members should be informed and how?

**Stage 2 – Collect Data**

(a) Prepare for data collection.
- ✓ what needs to be done to enable effective collection of data?
- ✓ is it necessary to devise data-gathering instruments (questionnaires, interview questions, observation checklists, etc.)

(b) Manage collection of data
- ✓ are arrangements for data-gathering, recording and collation in place?

**Stage 3 – Review Data**

(a) Initial interpretation of data
- ✓ does initial review of data collected indicate the anticipated level and class of information?
- ✓ are there any apparent gaps in information?
- ✓ are there any signs of contradiction within the information?

(b) Action plans
- ✓ does any element of information require verification? (what, when, where, who, how?)
- ✓ is additional information required (what, when, where, who, how?)

- ✓ is it necessary to devise further data gathering instruments?
- ✓ what needs to be done to ensure all additional data is gathered, recorded and collated?

(c) Non-training issues
- ✓ can any non-training issues be isolated at this juncture?
- ✓ who should be informed of these?

**Stage 4 – Analyse Data**

(a)  Identify and verify performance gaps.

- ✓ what gaps can be identified between current (or perceived future) performance and actual performance?
- ✓ is there evidence from different sources to clearly verify these gaps?

**Stage 5 – Identify training needs and non-training issues.**

(a)  Identify gaps in performance where training is seen as part of the solution.

- ✓ what performance gaps can be clearly linked to gaps in KSA and thus classed as training needs?
- ✓ what categories/areas/levels of training need have been identified?
- ✓ what numbers and categories of staff are involved?

(b)  Non-training issues

- ✓ have performance gaps been identified with a non-training solution?
- ✓ who should be informed of these?

**Stage 6 – Prioritise training needs & write final report.**

(a)  Explore training need priorities.

- ✓ have training needs been assessed in terms of their impact on organisational goals, strategy and plans?
- ✓ are there training needs linked to legislative requirements?
- ✓ are there training needs linked to compliance issues?
- ✓ are there training needs linked to other urgent considerations?

(b)  Examine costs and benefits of fulfilling training needs.

- ✓ what resources will need to be expended in order to fulfil the various categories of need identified?
- ✓ what are the potential benefits (ROI) associated with fulfilling the various categories of training need?
- ✓ are there training needs that can be fulfilled relatively easily (and provide early success stories)?
- ✓ are there training needs where fulfilment has a long-term orientation?
- ✓ are there specific considerations associated with how some categories of training need may be fulfilled?

(c)  Set priorities.

- ✓ have all relevant organisational criteria been taken into account (goals, strategy, plans, policies, culture, and resources)?
- ✓ what recommendations should be made with regard to need priorities?

(d)  Write TNA report.

- ✓ does report clearly outline: background, objectives and constraints; process followed; analysis of data collected; details of findings; summary of training needs in KSA terms; summary of staff numbers/categories; appropriate priority recommendations?

## Additional Pointers

▸  To facilitate an effective analysis of any problem (or future opportunity), verifiable evidence is a key ingredient. Therefore, always ask "How do I know what I think I know?"

▸  Initial outputs of a TNA process should ALWAYS be expressed in terms of KSA required and NOT in terms of "training". The purpose of a TNA is to identify gaps in KSA and these should be expressed clearly as an output from any TNA process – specific training interventions or courses should form follow-up recommendations as part of training plans.

## Comparison of TNA and LNA Approaches

TNA (Training Needs Assessment) and LNA (Learning Needs Assessment) are both processes used in educational and organizational contexts to identify gaps in knowledge, skills, or performance and determine the training or learning interventions needed to address those gaps. While they share similarities, there are also distinct differences between the two:

**Focus**

‣ **TNA (Training Needs Assessment):** Focuses primarily on identifying gaps in the knowledge, skills, and abilities required for employees to perform their job tasks effectively. The goal is to determine whether training interventions are necessary to address these gaps and improve job performance.

‣ **LNA (Learning Needs Assessment):** Focuses on understanding the learning needs and preferences of individuals or groups within an educational or training context. It aims to identify specific areas where learners require support, resources, or instruction to achieve their learning goals.

**Scope**

‣ **TNA -** Typically conducted within organizational settings to assess the training needs of employees or teams in relation to their job roles and responsibilities. It may involve evaluating performance data, conducting surveys or interviews, and analyzing job tasks and requirements.

‣ **LNA:** Can be conducted in various educational settings, including schools, universities, and training programs, to assess the learning needs of students or participants. It may involve assessing prior knowledge, learning styles, academic goals, and barriers to learning.

‣ **TNA -** Aims to improve job performance and organizational effectiveness by identifying training gaps and developing targeted training programs or interventions to address those gaps. The focus is on enhancing skills and competencies related to job tasks and responsibilities.

‣ **LNA:** Aims to enhance the learning experience and outcomes for individuals or groups by identifying their specific learning needs, preferences, and challenges. The focus is on designing instructional strategies, resources, and support systems that cater to diverse learning styles and abilities.

**Stakeholders**

‣ **TNA:** Involves collaboration between HR professionals, managers, trainers, and employees to identify training needs, prioritize areas for improvement, and develop training plans that align with organizational goals and objectives.

‣ **LNA:** Involves collaboration between educators, instructional designers, learners, and other stakeholders to assess learning needs, design instructional materials, and create learning environments that support learner engagement and success.

In Summary while both TNA and LNA involve assessing learning needs and identifying interventions to address those needs, they differ in their focus,

scope, purpose, and stakeholders involved. TNA is primarily focused on improving job performance within organizational settings, while LNA is focused on enhancing the learning experience and outcomes within educational contexts.

## DATA COLLECTION – TOOLS AND TECHNIQUES

To effectively analyse any situation and facilitate appropriate decision-making, the collection of information is an obvious cornerstone. However, we must also ensure that we do not just collect information – we must strive to ensure that the data we gather is the most beneficial for our purpose. Let us now review a selection of data-gathering tools and techniques commonly utilised during TNA processes.

It is essential to consider carefully the different data collection methods available before deciding which ones are the most suitable for the specific TNA being undertaken. There are many issues to be considered when choosing a data collection method:

▸ Employee involvement. Does the TNA process need to build learner commitment and how important is learning involvement to the organisation?

▸ Time Available. What are the time constraints in carrying out the TNA? When are the results required?

▸ Costs. Are there specific costs associated with particular data collection methods?

▸ Relevance. Are some data collection methods more relevant or more usable by the training specialist?

▸ Skills required. Does the person carrying out the TNA have the skills necessary to produce questionnaires, carry out interviews and analyse the data once it has been gathered?

▸ Respondent skills/knowledge. Can the selected respondent provide the necessary information?

▸ Relationships. What is the relationship between those involved in the TNA process?

▸ Is it likely that elements of distrust may make

some respondents reluctant to disclose any work problems?

▸ Does management have a preference for particular methods of collection?

We will now set out a list of data-collection methods and techniques, briefly discussing their utility in a TNA process before outlining potential advantages and disadvantages.

**Questionnaires** – Can be devised to include closed questions, rating scales, open questions or a combination of either, depending on the extent of quantitative or qualitative data sought.

Generally associated with TNA at organisational/departmental level where data is being gathered from a large group of people (may be relevant for job analysis involving a high number of jobholders).

### Advantages

▸ Information from a large population can be assessed quickly.

▸ Non-obtrusive method and anonymity.

▸ Can be completed at individual pace.

▸ Data collected is in a standardised format.

▸ Low cost.

▸ Reduced bias factor.

▸ Can provide quantitative data that facilitates ease of analysis.

### Disadvantages

▸ Requires careful construction.

▸ Response rate variable.

▸ Questions may be misunderstood or misinterpreted by respondent.

▸ No opportunity to probe further.

▸ Analysing information may be time consuming (with qualitative information in particular).

▸ Responses may not reflect reality.

**Interviews** – These may be structured, semi-structured or open and may embrace random selection, representative sampling or selected sampling of interviewees. They can help to gather useful data across all TNA levels.

**Advantages**
▸ More detailed and in-depth information can be obtained.
▸ Facilitates checking of information gathered from other sources.
▸ Flexible in terms of time allocated for each interviewee.
▸ Responses can be probed further to clarify responses or obtain further information.
▸ Face-to-face contact reveals body-language of interviewee.
▸ Useful for gathering quotes and instances of actual events.

**Disadvantages**
▸ Time consuming and potentially expensive (in terms of time).
▸ Lack of anonymity means reliable information may not be given on sensitive topics.
▸ Interviewer may lead the interviewee's responses or display personal bias on some topics.
▸ Interviewee may deliberately distort related information and/or events.

**Observation** – The process of observing an individual or group carrying out a task/job in a work environment. Most suitable for studying processes and workflow (e.g. manual or administrative type work) – can also be useful for studying behaviours during certain interpersonal interactions (e.g. customer service situations/call centre environment).

**Advantages**
▸ Can capture a whole event in its natural environment.
▸ Can focus on selected elements of performance/behaviours that require investigation.

▸ Data may be recorded continuously, at fixed points in time or at specified intervals.
▸ Actions/behaviours may be check-listed against prescribed best practice.
▸ Little interruption to work process.
▸ Allows for questioning to clarify issues arising.

**Disadvantages**
▸ Can be time-consuming and potentially expensive as observer must be present throughout.
▸ Actions can be observed but not the rationale behind them.
▸ Being observed may motivate or inhibit an individual and distort the results.
▸ Observer needs some knowledge of task and ability to work unobtrusively.

**Group Discussions/Focus Groups** – Facilitated, workshop-type discussions involving groups on an inter- functional or cross-functional basis. They may involve similar or mixed levels of managers and/or employees. May be useful across organisational, departmental or job level TNA processes.

**Advantages**
▸ Efficient way to involve many individuals.
▸ Wider views expressed and different perspectives offered.
▸ Subject can be explored in greater detail.
▸ Misunderstandings can be clarified immediately.

**Disadvantages**
▸ Requires experienced facilitator.
▸ Participants may be influenced by peers or "superiors" and may not offer honest opinions.
▸ Potentially expensive and time consuming.

**360° Feedback** – Performance reviews involving feedback from subordinates, peers and superiors (and possibly self-evaluation as well). It may be of use in analysing individual performance at managerial/supervisory levels.

**Advantages**

‣ Can indicate specific strengths and areas for improvement.

‣ Cost-effective.

‣ Possibly rare opportunity for senior-level managers to receive feedback.

‣ Can unearth attitudinal information.

**Disadvantages**

‣ Feedback may not always be genuine.

‣ Negative feedback may be rejected (especially by senior-level managers).

‣ Results may cause resentment between subject and specific groups of respondents.

‣ Results may have negative effect on confidence and morale of the subject.

**Diaries** – Individuals are asked to record "Critical Incidents" (incidents of specific success or problem areas) as they occur during their work. These are recorded in a diary-type log for a specific time period and subsequently analysed for trends. May provide helpful data at job or individual level – it lends itself more to certain types of work (e.g. salesperson).

**Advantages**

‣ Can uncover trends over time that may prove difficult to identify otherwise.

‣ Ensures key aspects of the job are identified.

‣ Do not have to wait for events to occur.

**Disadvantages**

‣ May take a prolonged period to yield results.

‣ Reluctance from individuals to participate as involves interruption to work.

‣ Individuals may need training on how to complete the diary.



# JOB / INDIVIDUAL LEVEL – ANALYSING JOBS AND TASKS

## What are job roles and tasks?

A job can be loosely described as a collection of tasks and responsibilities that an employee is responsible for completing. Jobs normally have titles (e.g. warehouse operative) and the role of the jobholder is to perform the tasks covered by the job, in line with the standards of the organisation. A task may be described as part of a job that constitutes a specific piece of work (e.g. for a warehouse operative some relevant tasks may include checking incoming materials; updating a database; storing materials; etc.). Information about job roles and tasks is usually contained in documents called "Job Description" and "Job Specification".

(a) Job Description – is a statement that outlines the purpose, scope, responsibilities and duties of a particular job. It typically includes:

‣ Job title.

‣ Responsible to (the position the job-holder reports to).

‣ Department/Section (where the job is located).

‣ Main purposes of the job (general statement of overall aims).

‣ Main duties, responsibilities and tasks involved (main headings and sub-divisions of the job/task descriptions should be brief).

‣ Working conditions (physical demands, work environment, etc.).

(b) Job Specification – is a detailed statement of the tasks and task elements that make up a particular job, and the knowledge, skills, and attitudes required to carry it out successfully. It usually includes:

- ▸ Listing of duties and responsibilities broken down into main tasks and task elements (task elements are clearly defined activities within main tasks).
- ▸ Knowledge requirements (what the jobholder needs to know/understand).
- ▸ Skill requirements (the skills/abilities the jobholder must have in order to perform the tasks effectively).
- ▸ Attitude requirements (the feelings/emotions that influence positive job behaviour).

## Job analysis

Job descriptions and job specifications do not appear out of the blue – they result from a process called job analysis. It is important to bear in mind at this stage that job analysis relates to the job (and the tasks that make up that job) and not to the jobholder. It is a process of examining a job in detail in order to clarify:

- ▸ The tasks/task elements involved.
- ▸ How each task is undertaken (including standards that apply).
- ▸ The relevance of each task in terms of the overall job.
- ▸ If there is a specific sequence in which tasks must be performed.
- ▸ Tools/equipment used and the work environment involved.

- ▸ Knowledge/skills/attitudes required to perform the job effectively.

In effect, job analysis is a data-gathering process. The data gathered is useful in a range of applications, including recruitment and selection; performance appraisal; reward management; and training.

## Gathering job analysis data

There are number of issues and procedures that must be considered when seeking to gather information about any job and there are a number of options that can be followed, including:

- ▸ **Own experience –** direct experience of performing the job, which should allow the trainer to specify exactly what the job entails. In this case, however, it is important to remember that familiarity can breed contempt. Care should be taken to ensure that all relevant activities are included and that the difficulty or ease of specific tasks is clearly indicated.
- ▸ **Observation –** going to the workplace and watching the jobholder performing the job.
- ▸ **Interviews with job-holders –** this is often done in conjunction with observation.
- ▸ **Interviews with managers/team leaders –** it is important to involve relevant managers and team leaders in the analysis process. In conjunction with establishing channels of communication, this is also a useful way to ensure that the job details gathered are complete and in line with established best practice.
- ▸ **Expert panels –** a group of people (who are deemed to be familiar with a job) meet, review, discuss and come to an agreement on relevant data.

There are various types and levels of analysis that may be carried out in ensuring that all the necessary information is gathered. With some jobs it is necessary to carry out a detailed breakdown of all the tasks involved, while in others less detailed information may be sufficient. Let us now look at some specific types of analysis.

## Task Analysis

Undertaking a task analysis involves breaking a job down into operational parts: main tasks (the main operations involved in the job); sub-tasks (associated with each main task); task elements (associated with each sub-task); etc.

Let us take the job of "Bar Person" as an example: One of the main tasks could be "Prepare food & drinks". One of the sub-tasks associated with this could be "Prepare an Irish Coffee".

Some of the task elements associated with this could be: (a) boil water; (b) get other ingredients ready; (c) mix ingredients; and (d) prepare to serve.

It is often useful to undertake this type of analysis in a "hierarchical" format, as set out in figure 5.1. In this hierarchical format, the "job" is broken down into "main tasks", with each main task being further broken down into "sub-tasks". These sub-tasks are subsequently broken down into "task elements" and "lower task elements".

How far we need to go with this type of analysis, in terms of levels of detail, depends on the nature of the job. However, that level is reached at a stage where "training" is not deemed to be required for performance of a particular task, sub-task or task-element (e.g. in the example above, the lower task elements involved in "Boil water" might be suggested to reside at that level). Bear in mind that we are analysing jobs and tasks in this instance from a training perspective only.

When undertaking a task analysis, it is critical that the information is recorded in plain language, avoiding abbreviations or jargon (these might make sense to an experienced jobholder but could be confusing to anyone not familiar with the job in question). As shown in Fig. 5.1. below, it is often useful to accompany written details with diagrams or charts that set out an overview of the various tasks, sub-tasks, task elements, etc.

**Fig. 5.1** ▸ Task Analysis – Hierarchical Format

The general details required from a task analysis would commonly include:

▸ A statement of how each part of the job/task is actually done, and what the jobholder needs to know and do to ensure that the job is performed effectively. Remember to pay special attention to:

- complicated procedures.
- tasks requiring specific skills.
- tasks following a specific sequence.
- tasks that are dependent on the completion of other tasks; and
- key points associated with particular parts of the operation (such as: a sound; a smell; a light; the tightness of something; etc.).
  - Machinery operated – purpose, parts, controls, etc.
  - Equipment, tools, instruments, etc., used (for handling, measuring, recording, cleaning, etc.) and where/how they can be accessed.
  - Raw materials used – loaded before the task, added during the task, used for packaging, etc., and where/how they can be accessed.
  - Documentation – all the paperwork and records that must be kept in association with the task.

## Risk Assessment

Health and safety at work is an extremely important issue and it is now covered by extensive legislation. When undertaking an analysis of any job, therefore, it is critical that special care and attention is paid to health and safety issues. This may be best achieved by undertaking a "risk assessment" (previously labelled a hazard analysis).

This entails close examination of every task, sub-task, task element, etc., in order to identify clearly any potential hazards that might exist. Some common examples of potential hazards may include toxic substances; poisonous gases; electrical connections; sharp objects; slippery surfaces; hot surfaces/substances; machinery in motion; etc.

We must also be aware of using correct manual handling procedures when lifting or moving objects. In conjunction with more easily identifiable risks, a review of the ergonomic environment (lighting, temperature, seating/standing postures, etc.) should not be overlooked.

## Standards / Quality

The expected standards and quality of the work being performed should also be included in the analysis information. These can be outlined under two different types of measurement:

(a) **Quantity (Examples)**

▸ Number of tasks completed within a specific time frame.
▸ Units produced per specified time interval.
▸ Time allotted to perform specific tasks.
▸ Sales orders entered per week.
▸ Usage of materials/resources.
▸ Number of visits made per day.

(b) **Quality (Examples)**

▸ Specifications/tolerances within which tasks are performed.
▸ Extent to which certain behaviours are adopted (e.g. hygiene procedures).
▸ Adherence to verified standards (e.g. ISO / HAACP / GMP).
▸ Number of complaints registered (e.g. customer feedback).

From a training perspective, job analysis data forms the basis for documentation on which training is based and standardised. It provides a detailed description of how a particular job/task should be performed. The resulting training output is variously called: a Standard Operating Procedure (S.O.P.); a Job Instruction Document; a Training Instruction Document; a Training Manual; etc.

## SUMMARY

Effective identification and analysis of training needs is a key stage in the T & D process in organisations. Failing to undertake this practice thoroughly means that any subsequent stage of the systematic training cycle may be undermined. In this chapter we have explored and discussed the TNA process, presented various models and approaches and set out a detailed roadmap for how it might be undertaken effectively. The information gleaned from a TNA process provides critical input to the development of training plans and the design of relevant training interventions.
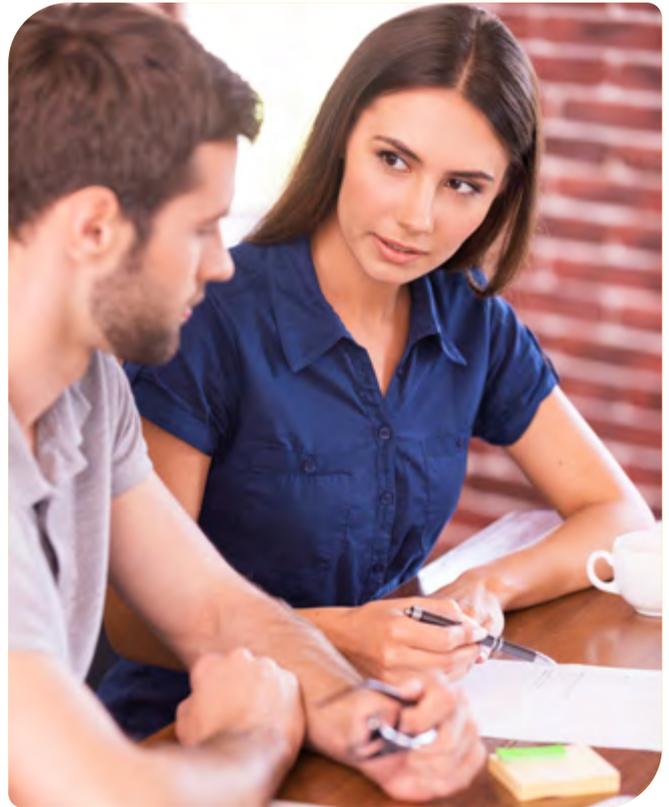
# Training Plans

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

- Explain the nature of training plans at organisational, job/occupational and individual levels.
- Identify common elements included in training plans.
- Devise a training plan based on prioritised training needs, including a cost benefit analysis.

## INTRODUCTION

Some points of clarification are deemed necessary as we begin to examine training plans. First of all, a note on terminology; "training plan" is sometimes used as a reference to a detailed plan for a specific training activity (e.g. a daily schedule, with headings such as "Time", "Content" and "Method"). This is more correctly termed a "Daily Session Plan" or a "Lesson Plan" to avoid confusion with the type of training plan pertinent to this chapter. Secondly, where do training plans fit in the T & D process? When training needs have been appropriately identified and analysed, the next stage in the T & D process is to create a training plan. However, many commentators are a little short on detail when it comes to specifying whether this is deemed the final stage of a TNA exercise or the beginning of the design and development stage.

From our perspective, the purpose of a TNA is to determine gaps in KSA which are impacting (or seen as having a future impact) on desired performance. We have already stressed that the outcomes of a TNA should be stated clearly in KSA terms and not in "training" terms. This is to avoid all too common situations where specific training interventions are prematurely proposed as solutions at the analysis stage of the TNA process and included as a fait accompli in a subsequent TNA report. Therefore, we suggest that recommendations at the conclusion of a TNA report might best focus on the gaps in KSA terms and their prioritisation.

All the factors we have already considered in terms of the organisational context of T & D come into play at this juncture. In particular the roles, responsibilities and expertise connected to the T & D function (assuming that this function exists in the organisation). Where the necessary expertise is in place, a training specialist (or specialists) will commonly be tasked with making recommendations about how best the identified gaps in KSA will be addressed as part of training plans. In any circumstance, allocation of specific responsibilities for drawing up and implementing training plans should be clarified. In addition, a process should be

established to ensure operational managers work together with the T & D function to agree to outcomes and how these will be evaluated. The plan must also be integrated with organisational training policies and procedures.

## TRAINING PLANS AT DIFFERENT LEVELS

Training plans are the mechanism through which: training aims are defined; training interventions are prioritised; resources are identified and allocated; training delivery choices are specified; costs and benefits of training interventions are calculated; and schedules of planned training activities are developed. Training plans are a blueprint for ensuring that training activities are organised and implemented in a structured and cohesive manner.

Previously, we have learned that training needs may be identified at organisational, job/functional, and/or individual level.

A similar circumstance pertains when it comes to training plans. In this chapter, we will examine the essential elements of training plans at each of these levels.

## Organisational Level

At organisational level, a TNA commonly encompasses every function and therefore the volume of the training plan will reflect the size of the organisation. However, guidelines for the elements that may be included are deemed standardised in most circumstances, and these are suggested to include:

‣ Details of each need, with reference links to the relevant segments of the TNA report forming the basis for the plan.
‣ Priority level of the need (e.g., 1 = Critical, 2 = Urgent, etc.).
‣ Explanation of priority allocation in terms of impact on organisational strategic goals.
‣ These may relate to operational performance; customer/client quality and/or service issues; reduction in costs; legislative matters; compliance concerns; etc.
‣ Function/department affected and staff numbers involved.
‣ Recommended training solutions.
‣ Aim of each training solution.
‣ Objectives (anticipated outcomes) of each training solution and associated performance measures.
‣ Resource allocation requirements for each training solution.
‣ Cost/benefit analysis for each recommended solution.
‣ Proposed date for completion of each training solution.

The manner in which a training plan, which includes this level of detail, may be drawn up and presented (e.g., in terms of layout, structure, etc.) is very much organisation specific. In many large organisations standardised software tools are utilised for this purpose.

## Job / Functional Level

This level can include training plans that cover a function/department, a precise grouping or team, and/or a particular job undertaken by a number of employees. The development of a training plan at this level may follow a TNA exercise aimed specifically at any of the aforementioned areas. It may also be based on a sub- division of plans already established at organisational level. Elements of a training plan at this level may include:

‣ Details of each need, with reference links to the relevant segments of the TNA report forming the basis for the plan.
‣ Priority level of the need (e.g., 1 = Critical, 2 = Urgent, etc.).
‣ Explanation of priority allocation in terms of impact on organisational strategic goals.
‣ Team/group/job affected and numbers involved.
‣ Recommended training solutions.
‣ Aim of each training solution.
‣ Objectives (anticipated outcomes) of each training solution and associated performance measures.
‣ Resource allocation requirements for each training solution.
‣ Cost/benefit analysis for each recommended solution.
‣ Schedule of training (dates, numbers, location).

The manner in which a training plan at this level may be drawn up and presented (e.g., in terms of layout, structure, etc.) is again very much organisation specific and standardised software tools may be utilised for this purpose (e.g., Microsoft Project).

## Individual Level

This level includes a training plan that covers a list of individuals relating to a function/department, a precise grouping or team, and/or a particular job undertaken by a number of employees. Elements of a training plan at individual level may include:

‣ Relevant team/group/job and names of those involved.

‣ Training intervention.

‣ Aim of training intervention.

‣ Objectives (anticipated outcomes) of training intervention and associated performance measures.

‣ Schedule of training (dates, numbers, location).

‣ Assessment stipulations.

The manner in which a training plan at this level may be drawn up and presented (e.g., in terms of layout, structure, etc.) is again very much organisation specific and standardised software tools may be utilised for this purpose.



## TRAINING PLAN ELEMENTS

At this juncture, it is important to reiterate that training plans differ across organisations, depending on the approach adopted, the scale of T & D activities, etc. However, as listed at the various organisational levels above, training plans commonly embrace a number of elements and further detail on some of these is now presented.

‣ **Recommended training solution/training solution.** This element should identify a specific training intervention and the proposed method for training delivery.

‣ **Internal options might include:**
  • on-the-job/off-the-job training using internal trainers.
  • on-the-job/off-the-job training using external trainers.
  • coaching/mentoring.
  • computer-based training/e-learning/web-based seminars (webinars).
  • work-based projects/assignments.
  • guided reading; and
  • job or work rotation.

‣ **External options might include:**
  • courses (without specific qualifications).
  • courses (leading to specific qualifications).
  • workshops.
  • seminars.
  • computer-based training/e-learning/web-based seminars (webinars); and
  • open/distance learning.

‣ **Resource allocation –** identifying the resources required and deciding how they will be allocated. A number of issues sit under the umbrella of this element, including responsibility for:
- overseeing budgetary controls.
- agreeing appropriate performance measures for each planned intervention.
- designing and developing internal training interventions.
- sourcing external training provisions and procurement procedures.
- delivering/facilitating training interventions.
- organising training schedules.
- organising training activities (locations, materials, equipment, etc.); and
- managing administrative issues (preparing documentation, collecting documentation, maintaining records, etc.).

‣ **Performance measures –** the nature of these will vary greatly within organisations (cross-functionally) and across organisations. A few general suggestions are put forward as follows:
- link with organisational (or functional) goals and targets.
- set specific, realistic goals for each intervention based on information from TNA process.
- use quantifiable measurements, such as: cost reduction; error reduction; increase in sales.
- improvement in service times; increase in client base; etc.; and
- make use of graphs, charts, tables, etc., for presentation purposes.

‣ **Cost-benefit analysis –** calculating the differential between the cost of training interventions and the perceived benefits that will accrue afterwards. Training costs may include:
- salaries (training function staff; others involved in training activities.
- trainees; and trainee replacement staff, if relevant).
- overhead costs of all staff involved in training activities.
- external trainers' fees.
- external courses (including travel, accommodation and subsistence expenses).
- administration (telephone, internet, consumables, etc.);
- depreciation on training buildings, fixtures, and fittings, etc; and
- training materials and equipment (purchased or hired).

With this spread of categories, calculating costs related to specific interventions is not a straightforward task. Direct costs are relatively clear-cut, but the manner in which indirect costs may be applied will be dependent on the procedures set out in individual organisations.

Perceived benefits will be directly related to the performance measures established and this is why the use of quantifiable measures is important. Even with these specified, however, placing an accurate cost on some measures may prove difficult and we must fall back on the prevailing organisational procedures.

It is also important to remember that with many training interventions an explicit financial benefit may be very difficult to ascertain (e.g. training related to hygiene, health and safety, compliance issues, etc.) despite the fact that the future viability of an organisation may depend on the effectiveness of the intervention. In addition, many training interventions may have a developmental orientation where anticipated outcomes apply to improved "soft" skills that cannot be directly linked to financial benefits.

## SUMMARY

Training plans are integral to the effective co-ordination of training events. In this chapter we have looked at training plans at a number of levels – organisational, job/occupational and individual. The specific layout and content included in training plans varies from organisation to organisation but we have outlined possible elements for inclusion across these levels.

# Training Design

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify and explain different training design models.

▸ Discuss training/learning objectives and set appropriate objectives for a training event.

▸ Identify the elements embraced by the training design process.

▸ Develop appropriate training content.

▸ Identify a range of training methods and explain their advantages and disadvantages.

▸ Discuss issues surrounding technology-based training and identify a range of associated methods.

▸ Design a training intervention that incorporates a range of design factors.

# INTRODUCTION

The design of a training intervention is based on outputs from the training needs analysis process in the form of gaps in knowledge, skills and attitudes. These gaps must be converted into learning objectives which in turn form the cornerstone of design decision-making. We will begin this chapter by outlining models of training design, before examining the range of factors that encompass the design stage of the T & D process.

# TRAINING DESIGN MODELS

## ADDIE Model

If we extract the design and development elements of the ADDIE instructional systems design model (see Chapter 4), we can identify a number of questions pertinent to design as follows:

▸ What are the learning objectives?
▸ Who is the training aimed at?
▸ What type of instruction will be most appropriate?
▸ Are there specific considerations regarding sequence and structure?
▸ How will learning be tested?
▸ What content should be covered?
▸ What are the most appropriate training methods?
▸ What type of learning activities will be suitable?
▸ What type of learning aids should be employed?

## Garavan et al (2003) Model

In proposing a systematic approach to training design, Garavan et al (2003) suggest that the overall training design process can be represented in a sequence through: specifying learning objectives; specifying learning content; selecting learning methods; structuring and sequencing the training programme.

## SOLAS QA 58/01 Design Specification

As the Training & Employment Authority in Ireland, SOLAS provides guidelines for the design and development of training programmes through its QA 58/01 Specification. SOLAS was established in 1987; as of mid-2012, legislation is pending for the establishment of a new education and training authority – SOLAS.

The SOLAS Training Specification is described as a detailed statement of the items to be addressed when designing any block of training (e.g. programme, course, module, or unit).

The benefits of using the SOLAS Training Specification are stated to include it aids the development of training programmes; as an aid to implementation, it provides a current record of course characteristics; it provides a standard format for monitoring; it aids the funding process (in an Irish context). To comply with the SOLAS Specification Standard, all the items listed must be addressed when drawing up a training specification. The items include Training Objectives; Outline Training Plan (with details of content and its structure and sequence); and Training Approach (including learning methods).

The main theme running through these models is the fact that the suggested elements of training design are very similar. We will examine and discuss these elements in the following sections.

# TRAINING / LEARNING OBJECTIVES

## Introduction

Learning objectives are a descriptive statement of intent regarding the desired trainee performance at the end of a training event and are often referred to as "learning outcomes". Objectives should state clearly what the trainee should know or be able to do and will always have a related "performance" statement. Their importance may be considered under a number of headings.

▸ **Trainees –** From a trainees' perspective, learning objectives provide a clear end goal for a training event and allow them to visualise exactly what behaviours they should be able to demonstrate at its conclusion. They can increase trainees' motivation by helping to remove uncertainty, setting attainable targets and informing them about how their learning from the event will be assessed.

▸ **Trainers –** Learning objectives help the trainer to monitor trainees' progress and to measure the success (or otherwise) of stages in the training event. They also provide a definitive means to assess if desired learning is acquired by trainees.

▸ **Training design –** The foundation of training design is provided by learning objectives. They help to identify the most appropriate: content; sequence and structure; and training methods. Learning objectives are also the key factor in guiding the development of an effective assessment process.

▸ **Training evaluation –** Learning objectives form the basis for evaluating the success of a training event. A key evaluation measurement is the level of success in attaining the achievement of learning objectives.

## Advantages and disadvantages

There are a number of advantages and disadvantages associated with learning objectives (Garavan et al, 1995; Garavan et al 2003).

**(a) Advantages**

▸ Give a sense of direction to the trainer and to trainees.
▸ Provide a measure of desired performance and clarity around expectations.
▸ Help to focus the attention of trainees.
▸ Offer the potential to increase trainees' motivation.
▸ Help to increase trainer's job satisfaction.
▸ Provide a clear measure for assessing trainees' progress and learning outcomes.
▸ Form a touchstone for trainer's feedback and guidance.

**(b) Disadvantages**

▸ Tend to be embedded in training design with little input from trainees.
▸ Open up the possibility of poor objectives being set – in a practical situation they may be too basic on the one hand or unachievable on the other.
▸ Can be limiting in general learning terms – they are a mechanism for imposing order and control over learning content and wider learning opportunities may be spurned.
▸ Present difficulties when associated with desired changes in attitude.

## Components of learning objectives

Learning objectives have three main components but their application is dependent on the nature of the desired learning outcomes. The components are:

▸ **Performance –** exactly what the trainee will be able to know and/or do at the end of the training event.

▸ **Conditions –** refer to the conditions under which the performance will be carried out and may include tools and materials used during performance.

▸ **Standards –** a measurement associated with performance (e.g. quality, speed, accuracy).

All learning objectives will have a performance component – however, the extent to which conditions and standards are deemed relevant is variable. For example, if an objective is solely knowledge-based, it may be considered superfluous to include a conditions or standards component.

## Sub-Objectives

Sometimes an objective is so long or so complex, it will require further breakdown into smaller and more manageable learning steps (also known as "learning chunks"), in other words, sub-objectives. These form a step-by-step pathway towards achieving the overall objective.

## Criteria

Objectives should be capable of only one interpretation and well-written objectives can be described as being clear, specific and measurable. According to Garavan et al (2003), effective learning objectives must satisfy certain criteria, including:

▸ **Realistic –** The objectives set must be attainable. They must not be so straightforward that there is no element of challenge nor so difficult that there is no chance of them being achieved.

▸ **Relevant –** The objectives must have direct relevance to the situation. This can mean that they will have an impact on work performance or will influence the learner's personal development.

▸ **Positive –** Objectives should be of benefit to the learner. Consequently, they are drafted to have a positive outcome rather than stating what a learner will no longer do after attending a training event.

▸ **Certain –** Objectives should not be vague. They should clearly state who will achieve what, in what time frame and under what circumstances.

▸ **Learning focus –** Objectives should relate to knowledge, skills and attitudes that the organisation wishes trainees to acquire.

▸ **Brevity –** Each objective should be limited to a single sentence that is precise and limited.

▸ **Action Verbs –** Each objective should begin with an action verb that facilitates observation and measurement.

## Learning objectives – models

Many models supporting the development of learning objectives have been proposed. We will now provide an overview of some of the most commonly quoted and used.

(a) **ABCD Model** (Schwier, 1998) – The ABCD Model is a model used in the Instructional System Design (ISD) process for writing learning objectives. The letters of the acronym represent:

▸ Audience – Who is the target audience for the training?

▸ Behaviour – What behaviour is expected at the end of the training?

▸ Conditions – Under what conditions is behaviour to be performed?

▸ Degree – What is the expected degree of accuracy (time, quality, quantity, procedure)?

(b) **CRAMP Model** (Stammers and Patrick, 1975) – this model involves five components:

‣ Comprehension – developing general understanding.

‣ Reflex Development – producing fast reliable patterns of response or manipulation.

‣ Attitudes – changing (existing) or developing new attitudes.

‣ Memory – recalling specific facts and figures.

‣ Procedural Learning – following a set of standard rules or procedures.

The CRAMP model also links each component with suggested learning methods (see Appendix II).

(c) **Boydell Model** (1997) – this model suggests that both the type and level of learning should be considered when setting objectives. The type of learning involves whether the trainee is learning:

‣ About things (acquiring knowledge and understanding).

‣ To do things (acquiring skills and techniques).

‣ To become oneself (acquiring the ability to assess own strengths / areas for improvement).

‣ To achieve things with others (acquiring the ability to work well with others: team-working; networking; embracing diversity; etc.).

Each type of learning set out above is linked with three levels of learning progression, as follows:

‣ Level 1 – performing each type of learning to an acceptable standard.

‣ Level 2 – performing each type of learning while thinking and acting independently.

‣ Level 3 – performing each type of learning in an integrative fashion and leaning on interdependence and mutual connections.

(d) **Bloom – Taxonomy of Learning** (1956) – this model is widely used in both educational and training circles in the context of setting learning objectives. It set out three domains or categories of learning, with subdivisions of behaviour that range from the simplest to the most complex, as follows:

‣ Cognitive – knowledge, comprehension, application, analysis, synthesis and evaluation.

‣ Psychomotor – imitation, manipulation, precision, articulation naturalisation.

‣ Affective – receive, respond, value, organise values, internalise values.

## Objectives checklist

The following checklist is recommended when objectives are being set:

‣ Do the objectives set out exactly what is expected from the trainee(s)?

‣ Do the objectives specify the performance required?

‣ Do the objectives state the conditions associated with performance?

‣ Do the objectives state the standards required?

‣ Can the objectives be measured?

‣ Are the objectives realistic?

## Choosing the right words

The words used when writing objectives should be chosen carefully in order to ensure clarity and to enable assessment at the end of the training session. Objectives should always begin with a stem (such as "At the end of this training, the trainee should be able to") which is followed by the relevant list of objectives. Each objective on the list should begin with an action verb and continue with measurable terms. It is also important that each objective begins in the same tense and maintains grammatical linkage to the stem.

Unfortunately, we have come across many instances where objectives are written along these lines (our comments in brackets and italics):

At the end of this training, the trainee should be able to:

▸ List hygiene procedures *(What hygiene procedures? How many procedures are there?)*

▸ Be aware of hygiene problems *("Able to" is repeated; "be aware of" is a very vague term – how can it be measured? Hygiene problems related to what? Can problems be quantified?)*

▸ Cross-contamination *(What should the trainee be able to know/do concerning cross-contamination? Can this be related to a specific procedure/standard?)*

▸ Understand the risks associated with poor hygiene standards *(What should be the depth of their understanding? How much do they need to know? Can this be made more specific and measurable?)*

These objectives might be better written as outlined below. At the end of this training, the trainee will be able to:

▸ List the six hygiene procedures outlined in Standard Operating Procedure (SOP) 241.

▸ Identify the four hygiene problems outlined in SOP 242.

▸ Implement the seven steps in the cross-contamination code outlined in SOP 250.

▸ Name three possible risks associated with poor hygiene standards and state how they can be prevented.

It is very important to avoid words that might be open to different interpretations or make assessment difficult. Examples of such words include Understand/Know/Appreciate/Be aware of. All of these can be made more specific and measurable **(see Appendix III – List of words for use with objectives)**.

Training objectives establish a link between the analysis of training needs and the design of training activities aimed at fulfilling those needs. Information gathered during the analysis provides a useful point of reference for the setting of training objectives, while training objectives provide guidelines for the design of subsequent training events.

## TRAINEE CONSIDERATIONS

The group of learners for whom the training is intended is commonly called the target population (the trainees). Trainees are the most critical element in any training event and several factors in this regard must be taken into account when designing training.

### Characteristics

Adult learners are not a uniform grouping and in training situations individual differences must be catered for. Garavan et al (2003) identify a number of important trainee characteristics and offer suggestions about how these may be catered for. Using this resource as a basis, we will now outline some of the critical issues arising.
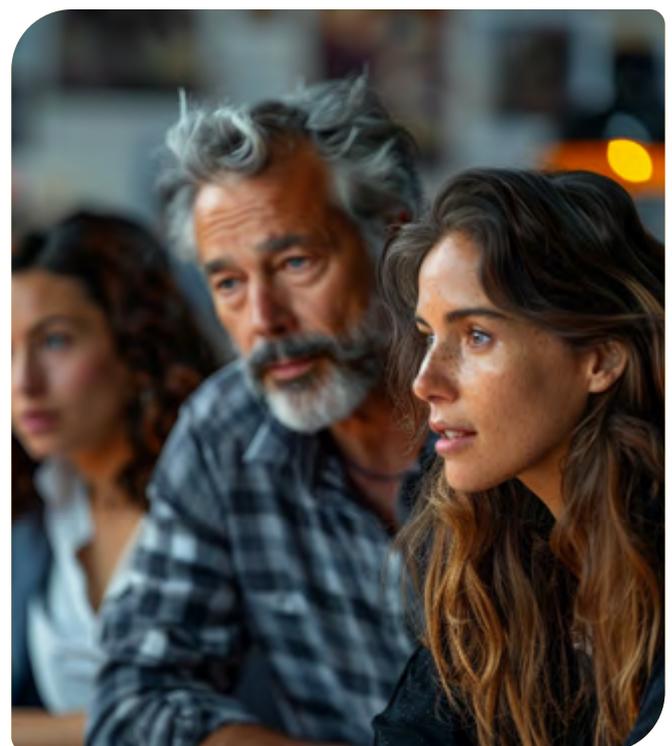
**(a) Age**

A training group may comprise a wide range of age levels and associated differences in approaches to learning have been suggested. We will use the terms "young" and "older" trainees in a broad sense, while recognising that these may be viewed as subjective terms.

In a general sense, it is suggested that adult trainees learn more slowly and may have more difficulty taking in new material than younger learners. Therefore, in designing training, the needs of older trainees may be better catered for by:

- Avoiding, where possible, instruction that relies on the need to memorise large tracts of information.
- Building the content in meaningful "whole" parts rather than small stages that may not seem connected. If small stages are utilised because a task is deemed complex, consider using the cumulative parts method (e.g., A, B, A + B, C, A + B + C, etc.).
- Building in longer uninterrupted learning periods are more appropriate for older trainees who may have retention difficulties with interrupted or short learning periods.

**(b) Background**

Trainees' background may vary in terms of education, previous work experience, previous training experiences, social circumstances, or cultural elements. In developing supporting materials, training design must cater for situations where English may not be the "first" language of trainees, and where problems may surround trainees' literacy levels. When preparing written training materials, therefore, the following points should be taken into account:

- Choose the shortest and most common version of words with the same meaning (e.g. "Safety gloves must be worn" rather than "It is imperative that safety gloves are worn").
- Avoid the inclusion of jargon, abbreviations without explanation or colloquial expressions.
- Avoid the use of long and wordy sentences – two or three short sentences can make for greater clarity than one long convoluted sentence.
- Where possible, support words with illustrations, diagrams, signs, etc.

**(c) Levels of Intelligence and Ability**

While definitions of intelligence tend to vary, in this instance we refer to trainees' ability to understand and apply new knowledge and skills. Taken in these terms, therefore, the design of training must focus on catering for different levels of intelligence and ability among trainees. Issues to consider with regard to trainees with lower levels of intelligence and ability are seen to include:

- **Sequence –** it may be more effective to proceed from concrete examples to general principles (from practice to theory).
- **Structure –** it may be beneficial to avoid unstructured learning activities where irrelevant information may cause a distraction.
- **Brevity –** long expansive instructions may prove a barrier to understanding.

**(d) Learning Styles**

We have discussed learning styles in Chapter 3 – Adult Learning. Suffice to say that the design of training should, insofar as possible, cater for a range of trainee learning styles by including a variety of learning methods and activities. Consideration should also be given to achieving a balance between visual, aural and kinaesthetic (i.e. VAK) elements.

## Motivation

A familiar theme running through the many definitions of motivation lies in it being a drive or force that impels individuals to behave in a particular way in order to fulfil goals or needs.

There are many theories of motivation, and among the most frequently referred to in a work context are those espoused by Maslow (1954), Herzberg (1959) and McGregor (1960). As full information on these is deemed to be easily accessible, we will not include them here. However, we can use their combined ideas to suggest how trainees' motivation to learn can be taken into account during training design, as follows:

▶ **Physiological needs –** it is important to consider trainees' physiological needs when deciding training schedules (timings/breaks, etc.) and the inclusion of training activities. We have experienced training events where daily schedules started at 8am and finished at 6pm. While this type of schedule may promote a "macho" culture (so beloved of some organisations currently), it takes little heed of trainees' concentration levels, learning focus, or retention of learning. Another factor is the length of time that trainees may spend sitting in the same position – activities that dictate occasional movement help to ease associated discomfort.

▶ **Safety** – trainees learning may be impeded by the inclusion of activities that threaten their physical or psychological well-being.

▶ **Order/structure –** there may of course be exceptions, but it is suggested that most trainees will prefer if a training event follows a logical flow and structure.

▶ **Social needs –** these can be of great importance in training situations. In group learning situations, the inclusion of group discussions and exercises may help to ease individual integration and assist group cohesion.

▶ **Esteem –** gaining a sense of achievement and recognition can prove very motivating for trainees. Setting goals that are testing, but achievable and realistic, can provide trainees with a sense of achievement. Building in opportunities to receive feedback on their progress offers the potential to gain recognition.

▶ **Personal growth –** creating learning circumstances that encourage trainees to take responsibility for their own learning and develop a sense of growth and advancement through learning can be beneficial in this regard.

▶ **Curiosity –** Visual aids, booklets, posters, or practice equipment, can motivate learners by capturing their attention and curiosity.

## Learning Principles

We have reviewed and outlined a range of adult learning theories in Chapter Three – Adult Learning; in Chapter Eight – Role of and Competences of the Trainer, we outline some associated learning principles and conditions. Adult learning theory and principles must also be taken into consideration in the design of training interventions, with a particular focus on:

▶ Formulating appropriate learning objectives.

▶ Building in activities that promote interaction and involvement of trainees.

▶ Including content that draws on the experience of trainees and promotes elements of discovery learning.

▶ Including exercises that allow trainees to test their evolving levels of knowledge and skill.

▶ Developing materials that provide clear, unambiguous, and specific information.

▶ Building in time for practice sessions to facilitate opportunities for skill-building.

## TRAINING CONTENT AND SEQUENCE

In general, the learning objectives determine what content will be included in the training programme. In many cases, the content of training activities for particular jobs/tasks have already been prepared and used many times. In other cases, the training content consists of "packaged programmes" that have been sourced externally.

However, in all cases it is critical that the content is reviewed against current training objectives to ensure that the material is totally in line with requirements. Remember that significant changes may have taken place in information systems, operational processes, materials, technology, etc., and that such changes can have important implications for the relevance and the effectiveness of training content.

## Developing Training Content

When the content of a training event is being developed, it is important to assess what must be learned in order that the trainee can achieve the objectives. The content can then be divided into what must be included and what might be included. It must of course include all the core details necessary for the trainee to be able to perform the job/task.

However, the content often includes some details of the overall context within which the task/job is set. It might also be relevant to include some general information that can help to make the learning more interesting for the trainee.

Garavan et al (2003) suggest two techniques which can be used to help in developing the content of a training event, and we will next summarise these.

**(a) Learning Maps**

Learning maps (also referred to as "mind-maps") are seen as an easy way to gather information about subject- matter. This type of technique appeals particularly to those with a creative leaning and, from our experiences, such individuals tend to really enjoy working through this activity with a small group. The process involves a number of steps, including:

▸ Start by drawing a picture, symbol, word or phrase in the centre of a page or flip chart that represents the topic.

▸ Develop ideas associated with the main topic and draw these as branches from the centre.

▸ Identify branches with key words or pictorially, using circles and colours.

▸ Build up the overall map with further ideas as sub-branches from main branches.

▸ Connect associated ideas and topics with lines and arrows, again using colours.

▸ The completed map should present all the knowledge, thoughts and ideas about the subject-matter – further ideas may be added as new thoughts occur.

**See Appendix IV – Sample "Learning Map"**

**(b) Horizontal Plans**

This technique involves laying the content out in a visual manner but with a certain flow and logic incorporated. This process also involves gathering thoughts and ideas about the subject-matter as they occur, and the suggested steps include:

▸ Brainstorm for ideas about subject-matter content and record each thought on a "post-it" note.

▸ Notes are attached to a wall or flip chart randomly as ideas are thrown out.

▸ When the brainstorming becomes exhausted, begin to move the notes into groupings by related topics and place them in vertical lines.

▸ Identify appropriate headings for each topic and write them on a note above the grouping.

▸ Finally, shape the flow of the material by moving the topics into a particular sequence.

Again, from our experiences, this exercise works very well and is thought particularly useful by those with a more logical approach to content development.

## Sequencing Training Content

It is not uncommon to find the terms "sequence" and "structure" used interchangeably when the order of training content is being discussed. For our purposes, sequence relates to the order in which training content is placed, while structure is concerned with the manner in which the time allotted for the training event is scheduled and broken down.

When developing the content of any training activity, special attention must be given to its sequence and this must be carefully planned to most effectively facilitate the learning process. A training session usually begins with an introductory segment, moves to the core elements (following a logical flow and progression), before concluding with a summary. Let us now look at each of these stages in more detail.

**(a) Introduction**

Circumstances will influence exactly what this will contain, but the following may be considered for inclusion:

▸ Personal introductions (trainer/trainees).

▸ Administrative issues (fire exits/toilet facilities/ breaks/etc.).

▸ Context of the training (link to previous and/or future training, rationale for training, etc.).

▸ Establish the "what's in it for me" (WIIFM) factor for trainees.

▸ Creation of appropriate learning environment (putting trainees at ease, checking that that room temperature and facilities are satisfactory).

▸ Training aim and objectives.

▸ Overview of training contents, methods, etc.

▸ An icebreaker.

A quick note on the use of "icebreakers" – these can prove beneficial on a number of fronts, including initiating early trainee interaction and involvement; signalling that training event will not just involve the trainer "preaching"; engaging in a "fun" activity or sharing a humorous anecdote to lighten tensions; etc. However, careful consideration should be given to the type of icebreaker used. Remember, if an icebreaker is deemed inappropriate, silly, clichéd or uninteresting, the training event will have gotten off to a bad start and this is often difficult to recover from.

**(b) Core Elements**

It is vital that the content follows a logical sequence. Sequencing can be built on the principle of working from simple to complex, known too unknown, etc. In some instances, learning associated with some tasks must be completed, before moving on to learning associated with another task (e.g. learning how to use a keyboard before learning to type).

The following points are also useful for consideration:

▸ Avoid plunging into the "main event" too quickly; paint a broad picture first and then proceed into the details. Place the whole learning in context and then introduce the parts.

▸ Where possible, start with and build on existing knowledge and skills.

▸ Where possible, place easily learned tasks at the beginning of the activity.

▸ Sometimes it is beneficial to follow a sequence that looks like a "spiral" rather than a "straight line" (winding out material gradually by moving from a simple level to a more complex level).

▸ Follow advice with an opportunity to practice.

▸ Build in more than one practice session to develop skills and provide feedback.

▸ The extent of practice sessions required to ensure that a task is mastered depends on its difficulty; its importance; and on how frequently it will be undertaken by the trainee (i.e. DIF Analysis).

▸ Do not overload any learning session with tasks/ elements that are difficult to learn.

▸ Where relevant, try to obtain a balance between passive and active training elements.

**(c) Closing Sequence / Summary**

The closing sequence of a training session is critically important – in practice, this section is unfortunately rushed through on occasions and this can undo the impact of an otherwise well-planned and conducted training event. Adequate time should be allocated for the closing sequence to cover:

▸ A summary of the key learning points from the training event.

▸ Reference to links with previous or future training.

▸ An invitation to trainees to ask questions.

▸ Formal evaluation of the training session.

▸ Agreement on individual follow-up action plans – when and how will learning be transferred to the workplace?

## ARCS Model of Motivational Design (Keller, 1987)

A number of training design models exist that propose specific stages to be followed during a learning event. In Chapter 10 – Training Delivery, we outline Gagne's (1985) Nine Steps of Instruction Model. Here we will outline the ARCS model of motivational design (Keller, 1987). This model sets out four stages in the instructional design process.

1.  **Attention** – gaining the attention of trainees at the outset of a learning event. This may be done in a number of ways, including:
    ‣ Perceptual arousal – using surprise or uncertainty to create interest.
    ‣ Inquiry arousal – posing challenging questions or problems to stimulate curiosity.
    ‣ Specific verbal examples – telling a story or anecdote.
    ‣ Active participation – involving trainees in a hands-on activity.
    ‣ Incongruity/conflict – posing statements that run contrary to the learner's previous experiences and playing devil's advocate during discussion.
    ‣ Humour – create interest by lightening the subject (be aware that too much humour can distract from the main topic).
    ‣ Variability – combine a variety of methods in presenting material.

    This first step of gaining trainees' attention is seen as relatively easy – the challenge is to maintain interest as the training progresses.

2.  **Relevance** – using practical language and tangible examples that are familiar to trainees. Several strategies can be followed in this vein, including:
    ‣ Experience – explaining how new learning may be linked to existing knowledge skills.
    ‣ Present worth – clarifying the current relevance of the subject-matter to trainees.
    ‣ Future usefulness – identifying what the subject-matter may mean to trainees in the future.
    ‣ Needs matching – taking account of trainees' motivational needs (achievement, affiliation, etc.).
    ‣ Modelling – realising that the trainer can be role-model for trainees.

3.  **Confidence** – presenting a degree of challenge that provides meaningful success, through:
    ‣ Objectives and prerequisites – helping trainees to estimate the probability of success by presenting performance requirements and assessment criteria.
    ‣ Grow the learners – getting trainees to realise that every learning journey begins with a single step that builds upon itself. Building in opportunities for trainees to achieve early successes and to recognise that every step is a new challenge.
    ‣ Feedback – providing feedback and promoting the notion of trainees' taking credit for their successes.
    ‣ Learner control – helping trainees to believe that their successes are a direct result of their own efforts.

4. **Satisfaction** – providing opportunities for the practical application of new learning in a real or simulated situation and providing reinforcement to help embed trainees' learning. Also, providing rewards for successes (using a combination of intrinsic and extrinsic motivational approaches). To do this effectively some basic rules are suggested, including:

‣ Avoiding a tendency to over-reward simple behaviour; this may be perceived as patronising and serve to annoy trainees.

‣ Ensuring that negative consequences of incorrect behaviour or not trivialised or made a cause for jocularity.

‣ Ensuring extrinsic rewards are not relied on too heavily – they should not become the primary motivating factor for correct behaviour.

‣ Designing and maintaining consequences that are seen to be equitable and fair by making expectations clear.

‣ Allowing the trainees to build confidence and realising that trainees' satisfaction will follow if the task remains challenging.



## TRAINING STRUCTURE

### Overall Length of Time Allocated

When planning and organising training, a decision must be made about the way training sessions will be structured and several factors must be considered. A leading question arises whenever a training event is being designed – what length of time should be allocated to its delivery? A basic principle in this regard is that the training content should be developed first – no design process should begin with a specific length of delivery already decided. Circumstances may limit options, but several may be considered that should assist decision- making, including:

‣ **Experience –** An experienced designer, in conjunction with an experienced trainer (sometimes one individual can combine these characteristics), should be able to make a reasonable estimate of the delivery time required by reviewing the content and methods developed for a training event on a section-by-section basis. However, following training delivery, a full review of the event should be undertaken to establish the validity of the estimate made (drawing on evaluation information).

‣ **Rehearsal –** The process here is similar to that outlined for the previous option, except that the trainer (and designer) actually delivers the training content and follows the proposed training methods in a "rehearsal" mode.

‣ **Pilot –** The ideal option is to pilot the training event with a group of selected trainees, with every facet of the event included. A detailed review should be held with trainees following the event (perhaps also at stages during the event).

### Structure of Overall Time

Having allocated an overall length of time for delivery, the next question arises – how should the overall time be structured (broken down)? For example, if two days (e.g. 14 hours) delivery time is allocated, many options

might be suggested (in theory at least) for how this might be structured in terms of time breakdown: 2 x 7 hour days, consecutively; 2 x 7 hour days with a specified time gap between each day; 1 x 7 hour day, followed by a four-hour session the following day, followed by a three-hour session the following day; etc., etc.).

A number of factors may impact on how this decision is reached. It must also be borne in mind that some of these factors may be subject to change during the time-lapse between the design and delivery stages of the process. Among these factors are:

▸ The breakdown of content between knowledge, skill and attitudinal elements. In particular, how this affects the time that must allowed for exercises, activities and practice. Variability is likely to be more pronounced for training events focused on skill-building (including interpersonal skills) and/or attitudinal change. Adequate time must be built in for practice and feedback, role play, discussion, etc.

▸ Issues such as: set-up or down-time considerations; appropriate start & finish times; break times; practice times; time for questions/ time for testing learning/etc.). For example, a time gap between particular training stages may be necessary to allow trainees to practice before a formal assessment is undertaken.

▸ The availability of trainees (days, evenings, blocks of time, etc.). There is a key factor to be borne in mind when planning a training schedule; operational production and/or service requirements will inevitably dictate the availability of trainees.

▸ The availability of resources/planned location of the training. Training may be designed with specific recommendation around resources and/or location but again changes may occur between design and delivery, dependent on their availability.

Further options for the structure of a training event have been suggested as (Garavan et al (1995):

▸ **Compressed Structure –** training is carried out over a concentrated period of time (e.g., consecutive days, one day per week, etc.). The common characteristics of a compressed structure include self-contained and exists only during the time of delivering and following pre-determined sequences and objectives are achievable within a specific time period.

▸ **Modular structure –** training is divided into distinct modules with varying lengths of time between each module. Each module will cover a self-contained cluster of concepts but modules may be integrated. With this type of structure, a training event may embrace learning elements outside of direct delivery time.

▸ **Part-time/Evening structure –** trainees participate in the training event on a part-time basis (normally evenings) over a specified time period. This option may require high levels of dedication as training is undertaken in trainees, own time (work and family commitments, where relevant, co-exist).

## TRAINING METHODS

Various categories have been applied to training methods: trainer-centred/trainee-centred; inductive/ skill- building/didactic; pedagogical/experiential; on-the-job/off-the-job; etc.

Common ground can be suggested between trainee-centred, inductive and experiential on the one hand and trainer-centred, didactic and pedagogical on the other. However, it is not quite so straightforward to insert "on- the-job" or "off-the-job" into either of these groupings. In any case, a range of options exist when choosing training methods for a training event, and it is important that the most appropriate methods are adopted for given situations.

Let us next review some of the more common methods, attempt to categorise them along the way in terms of their learning focus and outline their related advantages and disadvantages (Buckley and Caple, 1990; Garavan et al, 1995; Garavan et al, 2003).

## Lecture / Presentation / Talk

Although the circumstances behind their delivery may differ considerably a lecture, presentation or talk will normally follow a similar pattern whereby the trainer delivers information to a passive group of trainees, accompanied by a visual aid. A lecture or presentation may be used to outline new procedures, policies, etc., whereas a talk usually precedes an instruction or demonstration. These methods may be described as trainer- centred and group-oriented didactic.

**Advantages**
▸ A large number of trainees can be covered at one sitting.
▸ The trainer has complete control over the content and timing of the event.
▸ A lot of material can be presented in a regulated space of time.

**Disadvantages**
▸ Trainees are passive throughout and can easily lose interest.
▸ Unlikely to be accompanied by an assessment process so it's difficult to determine. the extent to which the information is being retained.

A cursory glance at the disadvantages leaves little doubt about the fact that this type of training method has been heavily criticised. If trainees can easily lose interest and if it's difficult to determine what they actually took in, one has to question why such an event is being organised in the first place. To lessen the impact of these disadvantages, some elements of interaction and involvement should be built in when this method is being employed, even if a large group is involved.

## Job Demonstration / Instruction

A job demonstration usually comprises a number of activities:
▸ Presentation (giving information).
▸ Demonstration (illustrating how certain skills are performed).
▸ Practice/Feedback; (allowing the trainee to practice and to receive feedback and guidance from the trainer.
▸ Question/answer session (providing opportunities for trainees to ask questions and clarify issues).
▸ Tests (ensuring that trainees have acquired requisite knowledge/skills).

Job demonstrations may be described as primarily trainer-centred, and as one-to-one or group-oriented didactic.

**Advantages**
▸ Comparatively easy to attract and retain trainees' interest.
▸ Highly practical and directly applicable.
▸ The "one" correct method of performing a task can be demonstrated and emphasised.
▸ Trainees are actively involved during practice.

**Disadvantages**
▸ Can be time-consuming, especially if equipment has to be prepared or technical problems emerge.
▸ Trainee numbers may be curtailed by the nature of the task/equipment/location.
▸ Varying levels of trainee ability may lead to some learning more quickly than others.
▸ We will go into further detail about Job Demonstration/Instruction in Chapter Ten – Training Delivery.

## Role Play

Role play is usually associated with the development of interpersonal skills (negotiating, interviewing, interacting with customers, etc.). It places trainees in an environment that "simulates" a workplace situation, where they are expected to "act" out a role, usually based on a short case history provided on a briefing sheet (digital media can be used to record such role plays). Following the role play situation, aspects of a trainee's "performance" can be analysed and feedback given about reinforcement or correction of the behaviours exhibited. Role play may be described as primarily trainee-centred, and as group-oriented experiential.

### Advantages

▶ Places trainees in a practical and active (even if contrived) learning situation.
▶ Case histories can be focused on specific learning issues.
▶ Trainees can draw on and relate to their own experiences.
▶ Specific strengths and weaknesses and key learning points can be identified.
▶ Whole group can learn from observation and discussion.

### Disadvantages

▶ Requires "volunteers" from trainee group.
▶ Over-enthusiastic/extrovert trainees can sometimes exaggerate behaviours.
▶ Can put pressure on some trainees.
▶ Can be time-consuming.
▶ High level of skill required by trainer, to facilitate the activity and ensure appropriate feedback is received.

## Case Study

A case study is commonly used to assist the development of analytical skills (problem-solving, decision-making, etc.) in a learning situation. It can be applied on an individual or on a group basis. This training method involves the provision of a particular case history, with specific questions set at its conclusion, to the trainee(s). These details are examined, analysed, and suggested responses are drawn up. They may subsequently be presented in written form or by way of presentation. Case study method may be described as trainee-centred and as group- oriented experiential.

### Advantages

▶ Involves high level of trainee involvement in learning situation.
▶ Can draw upon the experiences of trainee(s).
▶ Allows a range of alternative solutions to be considered.
▶ Can be used to provoke discussion on alternative solutions.

### Disadvantages

▶ Can be time-consuming.
▶ Relevant case studies must be developed, sourced, and kept up to date.
▶ Difficult to gauge the most appropriate time to allow for completion.
▶ Requires experienced trainer if full intended learning outcomes are to be realised.

## Discussion Group

This activity is often associated with attempts to introduce attitudinal change or to reinforce previous learning. It is usually trainer-led, and involves participants in examining issues, problems, solutions, ideas, etc. It may be described as both trainer and trainee-centred, and as group-oriented experiential.

**Advantages**

‣ Promotes participation of trainees.

‣ Participants can express opinions and listen to opinions of others.

‣ Trainees' experiences can be drawn on.

**Disadvantages**

‣ Requires expert facilitation to keep discussion on track.

‣ Can be time-consuming (and difficult to gauge the time allowed).

‣ Numbers must be restricted (maximum of 12 is often recommended).

## Coaching

Coaching is generally aimed at the development of specific skills/performance. It is most commonly used as a one-to-one training strategy and is usually led by a trainer or team leader/line manager. It is sometimes initiated as a follow-up activity, after the trainee has gone through the formal process of job instruction. The agenda is commonly set by the trainer and coaching usually takes place on-the-job. It may be described as trainer-centred, and as one-to-one didactic.

**Advantages**

‣ Opens up opportunities to give support and encouragement to trainee.

‣ Provides instant and ongoing feedback to trainee.

‣ Can improve staff relations and communications.

‣ Focused on specific skill-building.

‣ Supervisor gains practical experience in training role and helps to build reputation as a "developer of people".

**Disadvantages**

‣ Can be time consuming.

‣ May not be viewed as cost effective (one trainee involved at a time).

‣ Operational factors may cause interruptions.

‣ Trainer/team leader/manager must be skilled in coaching techniques.

## Action Learning

Action learning is concerned with "development" rather than "training". As such it is aimed at managerial staff, has a long-term focus, and its outcome is seen as the development of relevant managerial skills. This activity is generally project-based, involves a group of trainees, and concerns the management of a project-based task. The group is normally assigned a "consultant" (internal or external) with whom progress, problems, learning, etc., are discussed at regular intervals, and from whom feedback and guidance can be elicited. Action learning may be described as trainee-centred, and as group-oriented experiential.

**Advantages**

‣ Involves trainees in an active learning situation and provides an opportunity to take personal responsibility for learning.

‣ Can provide experience of working in a team environment and can help to build teamwork.

‣ Assists with the development of problem-solving skills, decision-making skills, and creativity, and also promotes initiative.

**Disadvantages**

‣ May place some trainees in a stressful situation and consequently have a negative impact on their learning.

‣ Conflict situations may develop within the project/learning group.

‣ Can be time-consuming for trainees (an addition to their workload).

## Facilitation

Facilitation is a much used and often abused term in a training context and is often used to describe a wide range of training approaches. In this instance, facilitation is put forward simply as a method whereby the "trainer" helps participants to help themselves. As such, the focus is on facilitating the "process" rather than the "task", and trainees are encouraged to lead the activity. The role of the trainer thus mainly involves encouraging, guiding and advising the trainee group. Facilitation, in this context, may be described as trainee- centred, and as group-oriented experiential.

**Advantages**
▸ Promotes trainee initiative and taking of responsibility.
▸ Provides a learning resource to trainees. Disadvantages.
▸ Group may be inclined to expect trainer to lead the activity.
▸ Requires an experienced trainer/facilitator to avoid being drawn into a leadership role.

The training methods adopted will influence the choice of learning aids used for a training event and this must also be considered at the training design stage. We will review learning aids in Chapter 10 – Preparing for Training Delivery.

## DAILY TRAINING PLANS

The successful conclusion of training design facilitates the formulation of daily training plans; sometimes referred to as outline training plans or training session plans.

These represent an overview of the content, sequence and structure of a training programme in a daily context and commonly also include details of proposed training methods. The level of information included and the specific layout of daily training plans may vary considerably. However, a fundamental approach suggests that they should contain at least three critical headings (as columns), as follows:

▸ Time – the initial starting time and start times for each successive segment of the training content (including break times).
▸ Content – a broad outline of the content in time segments (including exercises, activities, assessments, evaluation, breaks, etc.).
▸ Training Methods – a description of the specific training method or methods proposed to help learners acquire requisite knowledge, skills and attitudes. A common error in specifying details in this category is the inclusion of "PowerPoint," "Flip chart," "Handouts," etc. These are learning aids and should not be categorised as training methods.

It is common to find daily training plans with lots of further detail, including: Programme Title; Date; Session Title; Training Aims; Learning/Training Objectives; Trainee Numbers; Entry Level; Trainer; Duration (overall time allocation); Location; Set-up and Seating Layout; Equipment; Material; Resources; Assessment Method; and Notes. A daily training plan is seen as an essential tool to guide the delivery of training. However, circumstances may dictate that timings are not slavishly adhered to.

**See Appendix V: Sample Daily Training Plan. TECHNOLOGY-BASED TRAINING**
The world of technology-based training methods and associated learning options is vast, packed with terminology, and has maze-like beginnings, middles and endings. This section attempts to review the most common and up-to-date approaches to learning through technology-based methods, and to put forward some considerations around the related design process. Let us state clearly that this is not proposed as an in-depth review and discussion; however, we will include useful references to web-based material that should serve that purpose.

**Information and Communications Technology (ICT)**

Advances in Information and Communications Technology (ICT) now mean that training can be delivered and undertaken in a wide range of "non-traditional" formats. ICT is seen as a technology that supports activities involving the creation, storage, manipulation and communication of information, together with related methods, management and application. It encompasses computer and network hardware and software; mobile telephones; satellite systems; radio; television; etc.

**e-Learning, online / web-based learning and computer-based training (CBT)**

Different interpretations can be found about where e-learning sits in the technology-based training framework. To some, it comes under an online/web-based learning strategy (www.litmos.com), while for others it is a broader concept than online/web-based learning, encompassing a wide set of applications and processes that use all available electronic media to deliver education and training more flexibly. According to Rosenberg (2001), e-learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance.

A clear distinction between e-learning and CBT is offered at www.slideshare.net. E-learning is seen as the process of delivering training or education through electronic media – it is not the electronic delivery system itself. In contrast, CBT is seen as the actual delivery system (e.g. training pursued via CD ROM, DVD or the Internet). Basically, a computer connected to the Internet is a form of CBT used for e-learning purposes.

To summarise, the following basic outlines are offered:

▸ ICT is a broad term encompassing technology that supports information and communication systems.

▸ E-learning means the use of Internet technologies in the provision/delivery of education and training.

▸ Online/web-based learning means the provision of education and training through an Internet resource. Provision may be on a "live" basis (access only when on-line) or an off-line basis (downloaded). Online/web-based learning, therefore, comes under the umbrella of e-learning.

▸ CBT is any training that is pursued through the medium of a computer. The source of the training may come through technology or through an Internet resource. Therefore, some elements of CBT come under the umbrella of e-learning, while others do not.

▸ Blended learning refers to training that is carried in part through e-learning and in part through a training room environment. A common approach features the delivery of theory-based content through e-learning, prior to actual participation in a training event where the focus is on practical application. This can be a very efficient and effective method of delivery, particularly if travel and accommodation costs are involved.

For the remainder of this section, we will use the term "e-learning" to reflect current and future trends in technology-based training.

## E-learning strategies

As stated by Rosenberg (2001), "Mergers and acquisitions, global operations, short product life cycles, hyper- competition, instantaneous communications, the explosion of knowledge and e-"everything" are combining to fundamentally change the way we live and learn". Consequently, ever-increasing numbers of organisations, particularly those in the large multinational category, are devising e-learning strategies as an up-to-date and innovative approach to providing training for staff. Let us now outline some advantages and disadvantages associated with e-learning.

**(a) Advantages**

▸ **Accessibility –** learners can access e-learning programmes at the times and places most convenient to them and/or their organisation. Two catchphrases associated with e-learning summarise its flexibility and convenience: (a) for learners "at their own pace, at their own place"; (b) regarding access to material "just in time and just enough".

▸ **Cost savings –** e-learning can cut training costs significantly in a number of ways. It eliminates the expense and inconvenience of getting a trainer and trainees in the same place and at the same time. The availability of a specific programme through an e-learning facility potentially eliminates travel and accommodation expenses. The need for instructor-led facilities and infrastructures may also be reduced. E-learning can also cater for an unlimited number of learners simultaneously in a virtual environment.

▸ **Online/web-based learning** means the provision of education and training through an Internet resource. Provision may be on a "live" basis (access only when on-line) or an off-line basis (downloaded). Online/web-based learning, therefore, comes under the umbrella of e-learning.

▸ **Skills development –** learners can enhance their computer skills and knowledge of Internet facilities that can help them in their lives and careers. Undertaking e-learning programmes can build learners' self-knowledge and self-confidence and encourage them to take responsibility for their own learning.

▸ **Ease of updates –** when an e-learning programme comes on stream, changes can be made instantaneously and learners can instantly access the update. Programmes can also be designed to access designated current information from other online sources.

▸ **Trends –** staggering growth has occurred in the use of social and business focused communications and networking, through an increasing variety of technologies, devices and applications. This trend strongly suggests that learners of the future will expect and anticipate that training interventions will utilise e-learning facilities.

**(b) Disadvantages**

▸ Overall cost savings may accrue through an e-learning strategy but general agreement is found on the higher level of costs associated with the design and development of e-learning programmes (over "traditional" design and development).

▸ For some learners, social contact is an important motivational factor – a group of virtual fellows-learners may not adequately fulfil this social need and some learners may feel isolated.

▸ It is difficult to replicate the practical application of some skills (e.g. specific interpersonal skills) in a virtual environment.

▸ Slower Internet connection speeds (many areas are still affected by this) or the use of older computer hardware may cause frustration for some learners.

▸ Outside of current trends, some learners may find accessing the Internet and using online learning software a complex task.

▸ As previously stated, more and more organisations are adopting an e-learning strategy as part of their approach to T & D. With new developments that improve the potential and flexibility of e-learning emerging on a continuous basis, this trend can only be expected to continue.

▸ Implementing an e-learning strategy does present a challenge and, depending on the nature of the organisation, this can represent significant change that must be managed effectively.

## Learning Management Systems

E-learning strategies are commonly implemented through Learning Management Systems (LMS) – also referred to as Virtual Learning Environments (VLE) or Asynchronous Learning Networks (ALN). Typically, an LMS embraces learner registration; delivery of learning activities; assessment of learners in an online environment; and the provision of reports to management. A more comprehensive LMS may include tools such as: competency management; skills-gap analysis; talent management; succession

planning; certification; and resource allocation (venues, rooms, textbooks, instructors, etc.).

LMS also serve as a platform to deliver eLearning to students. Many options are offered, among the most popular being Moodle, Blackboard/WebCT, and Desire2Learn. The features of an LMS include virtual classroom; audio and video conferencing; application sharing; chat facilities; shared whiteboard; and instant messaging.

## Learning Content Management Systems

The focus of a Learning Content Management System (LCMS) is on learning content. It gives authors, instructional designers, and subject matter experts the means to create e-learning content more efficiently. A primary business problem that an LCMS addresses is the creation of enough content, just in time, to meet the needs of individual learners or groups of learners.

Rather than developing entire courses and adapting them to multiple audiences, instructional designers create reusable content chunks and make them available to course developers throughout the organisation. This eliminates duplicate development efforts and allows for the rapid assembly of customised content.



## Designing and Developing e-Learning Programmes

A list of ten "commandments" for the design and development of e-learning programmes has been put forward by Ellis (www.cathellis13.blogspot.ie) and condensed into five "commandments" at (www.upsidelearning.com). These may be summarised as follows:

1) Pedagogy First, Technology Second. The desired outcome is learning and resultant performance, not cool technology. Technology cannot replace learning but it can augment and support it.

2) Tie to Performance Outcomes. Lots of e-learning programmes might be described as "irrelevant", because the designers didn't really focus on what problems their learners were trying to solve or what they were trying to do. Learning content must be targeted correctly for it to work, and the only way to accomplish that is by knowing about your learners and their goals.

3) Use Small and Smaller Learning Units. These allow for flexibility when creating personalised learning paths. The smaller they can be made the better as, breaking content down into smaller learning units allows design of a more customised learning experience for learners.

4) Simplicity in Presentation and Content Structure. Simplicity may not be easy but great care should be taken to simplify the presentation and structure of content to make learning more effective. Avoid using sophisticated media without any obvious learning advantage.

5) Context, Context, Context. Ensure context is maintained: in presentation; during practice; and in assessment. An instructional designer must maintain context by providing content that's relevant to workplace performance.

Context can be enhanced by using scenarios, stories, demonstrations, examples, and case studies that tie into the outcomes of specific programmes.

## Tips for e-learners

An extensive list of useful tips for online learning are outlined at: University of Wisconsin where it is suggested that learners should strive to possess the following qualities (summarised and adapted)

▸ Be open-minded about sharing life, work, and educational experiences as part of the learning process. Introverts as well as extroverts find that online learning requires them to utilise their experiences. This forum for communication eliminates the visual barriers that hinder some individuals in expressing themselves.

▸ Be able to communicate through writing. In the virtual classroom, nearly all communication is written, so it is critical that learners feel comfortable in expressing themselves in writing.

▸ Be self-motivated and self-disciplined. With the freedom and flexibility of the online environment comes responsibility. The online process takes a real commitment and discipline to keep up with the flow of the process.

▸ Be willing to "speak up" if problems arise. Many of the non-verbal communication mechanisms that instructors use in determining whether learners are having problems (confusion, frustration, boredom, absence, etc.) are not possible in the online environment. Learners experiencing difficulty on any level (either with the technology or with the course content) must communicate this immediately. Otherwise, the instructor will never know about the problem.

▸ Be willing and able to commit to five to ten hours a week per programme. Online is not easier than the traditional training process. In fact, many learners say it requires much more time and commitment. The successful learner will view online as a convenient way to receive training, not an easier way.

▸ Accept critical thinking and decision making as part of the learning process. The learning process requires learners to make decisions based on facts as well as experience. Assimilating information and making correct decisions requires critical thought.

▸ Be able to think ideas through before responding. Meaningful and quality input into the virtual classroom is an essential part of the learning process. Time is given in the process to allow for the careful consideration of responses. Testing and challenging of ideas are encouraged; you will not always be right, just prepare to accept a challenge.

▸ Feel that high quality learning can take place without going to a traditional training room/ classroom. Learners who feel that a traditional environment is a prerequisite to learning, may be more comfortable in that environment. Online learning is not necessarily for everybody.

▸ Participate! Contribute your ideas, perspective, and comments on the subject you are studying, and read about those of your classmates. Your instructor is not the only source of information: you can gain great insight from your peers and they can learn from you as well.

▸ Make sure you have a private space where you can study. Your own space where you can shut the door, leave papers laying around, and work in peace is necessary.

▸ Log on to your programme every single day (or a minimum of 3-5 days a week). Once you get into the online system, you will be eager to see who has commented on your postings and read the feedback of your instructor and peers. Allowing too much time to elapse means that you may get behind and find it very difficult to catch up.

▸ Take advantage of your anonymity. One of the biggest advantages of the online format is that you can pursue your studies without the judgments typical in a traditional training environment. Unless you are using video conferencing, no one can see you; there are no stereotypes and you don't have to be affected by raised eyebrows, rolled eyeballs, peers stealing your thunder, or people making other non- verbal reactions to your contributions.

▸ Be polite and respectful. You may be anonymous but remember that you are dealing with real people. Being polite and respectful is not only common sense, but also absolutely obligatory for a productive and supportive online environment.

▸ Apply what you learn. If you are able to apply everything you learn as you learn it, you will remember it more readily. If it is possible, take the things you learn in your online course today and use them in your workplace tomorrow. Also, try to make connections between what you are learning and how it will be used in a practical sense.

It looks a safe bet that e-learning will continue to grow as a means of training provision. The range and pace of developments in this method of training are also continuing to grow – at an even faster rate. The extent to which e-learning, or blended learning approaches, will replace or complement traditional training methods is a matter of conjecture. Notwithstanding this, training professionals need to keep abreast of e-learning developments and their undoubted potential to expand and improve learning experiences.

## SUMMARY

In this chapter we have presented and discussed critical features associated with the design of training events. As the cornerstone of the design process, we discussed the importance of training objectives, before outlining suggestions around their development, structure and wording. Subsequently we examined a range of elements that must be considered at the design stage, including trainees; content; sequence and structure; and training methods.

Finally, we have looked at trends and developments surrounding technology-based training, included suggestions for the design of training through this medium, and listed some useful tips for learners.

# 8

# Role & Competences of the Trainer

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify the characteristics of an effective trainer.

▸ Explain the communication process and discuss the importance of verbal and non-verbal communication skills in the context of training delivery.

▸ Provide constructive feedback to trainees in training situations.

▸ Identify and implement adult learning principles based on adult learning theory.

▸ Discuss a range of issues concerned with equality, diversity and disability, concerning access to and delivery of training in the context of current legislation.

▸ Explain principles of group dynamics in a training environment.

▸ Identify key factors in continuing professional and personal development.

## INTRODUCTION

The purpose of this chapter is to examine the crucial role of the trainer in guiding trainees' learning during a training activity. To perform this role effectively, a broad set of competences are required. Trainers need to: demonstrate a number of important characteristics; demonstrate effective communication and feedback skills; understand and implement a range of adult learning principles; oversee an appropriate ethos of equality and diversity; embrace key issues surrounding group dynamics; and heed the importance of continuing personal development.

## CHARACTERISTICS OF AN EFFECTIVE TRAINER

The style and approach taken by the trainer can have a major bearing on the success of learning activities and effective trainers must display particular characteristics and qualities. The following list is by no means exhaustive, but it does reflect the main characteristics required by an effective trainer. In this regard, a trainer should:

▸ Have technical competence in the subject-matter area. The ability to demonstrate relevant skills effectively and confidently answer questions relating to the content of the training (sometimes questions around side-issues may be asked and a trainer may have to check details and revert to the questioner at a later stage).

▸ Possess a high level of interpersonal skills, especially good presentation, listening, questioning and feedback skills.

▸ Have a genuine interest in people. The role of a trainer means interacting with others on a personal basis and helping them to learn.

▸ Display a caring attitude towards trainees and value their experiences. Trainers should never forget that they too were in the trainees' shoes at one time.

▸ Demonstrate enthusiasm and commitment in words and actions; quite simply, if a trainer is not enthusiastic about the subject-matter and the learning process, it will hardly be surprising
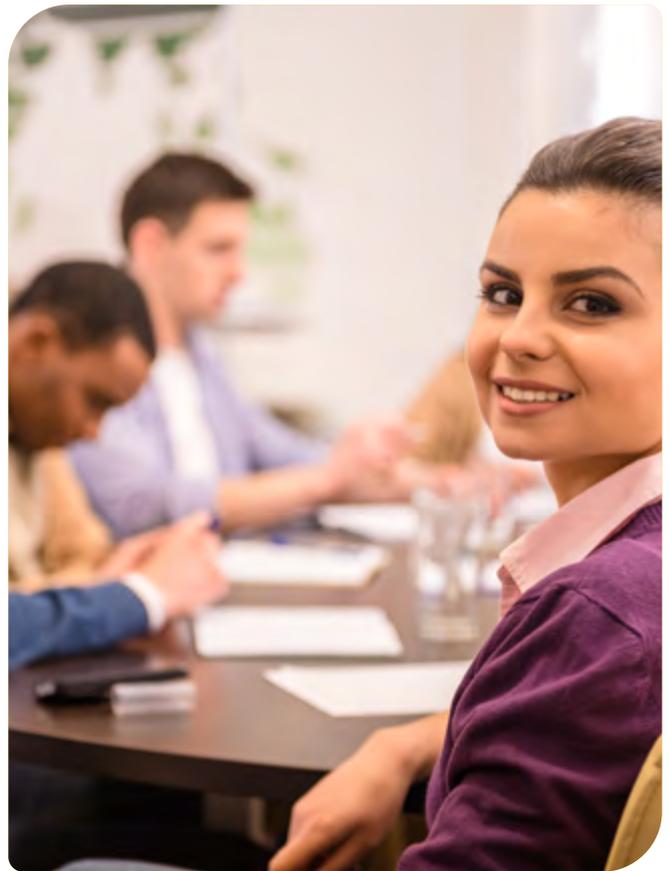
if trainees lack enthusiasm also. A trainer must leave all personal issues behind when entering a training environment and adopt a positive attitude throughout.

▸ Have the ability to adapt to situations as they arise as not everything will go to plan during every training activity. A trainer should be able to cope with technical difficulties, unanticipated outcomes of exercises, etc., and react accordingly.

▸ Value the need for thorough planning and preparation. The saying "fail to prepare, prepare to fail" may be clichéd but it still rings true. A smoothly run and effective training activity has planning and preparation at its core.

▸ Show patience and tolerance when trainees fail to understand or are slow to learn. Patience and tolerance are easy with a trainee who is quick to learn, however, this assumes extra importance in cases where the trainee is having difficulty.

▸ Welcome constructive criticism and advice concerning training methods. It can be reasonably suggested that most people (trainers included) would prefer to avoid criticism even if it

is constructive. However, a trainer should receive constructive criticism and advice with an open mind and welcome opportunities to reflect on aspects of their performance as a trainer.

▸ Display good humour, without being flippant or too carefree. Training should always be taken seriously, however, where appropriate a trainer should adopt a good-humoured demeanour. "Jokes" are inadvisable but a light-hearted experience shared occasionally by a trainer or a trainee may prove beneficial in terms of relationship building.

▸ Create a positive learning environment – this applies in both a physical and a psychological/emotional context. From a physical perspective, elements such as seating, lighting, room temperature, etc., are of obvious importance in retaining trainees' focus on learning. The psychological aspect relates to ensuring that trainees are comfortable about: asking questions; sharing experiences; engaging in discussion; and challenging the status quo.

This may seem like a daunting list of characteristics but all are seen as important to a trainer's role in assisting others' learning.

## THE COMMUNICATION PROCESS

Definitions abound for the word "communication" but they invariably agree on it implying "the imparting or exchange of thoughts, opinions or information". Communication, therefore, is a two-way process which involves a person (or group of people) sending a message to another person (or group of people). Many models of the communication process have been devised – for our purposes we set out what might be considered a basic model in Fig. 8.1.

In this model, the communication process begins when a person (sender) formulates (encodes) a message for transmission to another person (receiver). The message is transmitted through a chosen medium (verbal, written, body language, visual or signal) and

is interpreted (decoded) by the receiver. If suggested by the message and performed by the receiver, the action or outcome returns through a feedback loop.

Before discussing some of the elements of the model in more detail let us offer a very simple example of how the model operates. Janis (sender) asks (verbal medium) a work colleague, Jim (receiver), to switch on a nearby light (message). Jim does as request (action), the light comes on (feedback) and a successful communication process has been completed.

**Fig. 8.1** ▸ Basic Model of a Communication Process



FEEDBACK

SENDER

ENCODING

MESSAGE

MEDIUM

VERBAL, WRITTEN, BODY LANGUAGE, VISUAL, SIGNAL

DECODING

RECEIVER

OUTCOME/ACTION
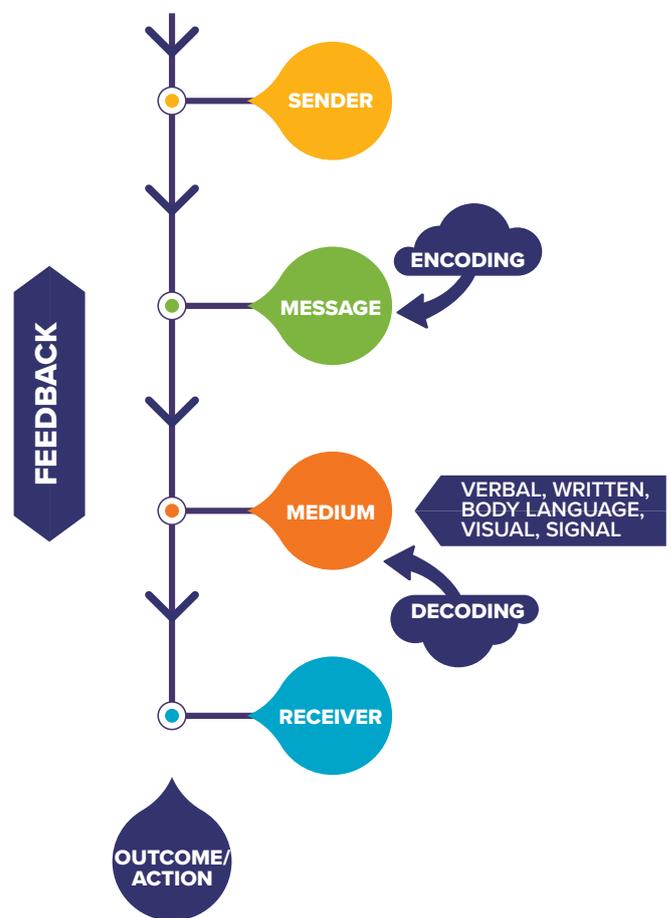
▸ Sender/encoding/message. In our example, it may be suggested that Janis had little encoding to do. Wishing to have the light switched on, she spontaneously requested the nearest person to do so.

However, there are many occasions when more careful consideration must be given by a sender to the composition and content of a message.

▸ Message. Information content of communication.

▸ Medium. We have included five main categories of medium for transmitting a message.

▸ Verbal: the spoken word (face-to-face/phone/recorded message)

▸ Written: textual language (handwritten/typed/electronic).

▸ Body language (sometimes classed as non-verbal): wordless (posture/gestures/facial expressions/eye movement/etc.).

▸ Signal: gesture, action or sound that is used to convey information or instructions (typically by prearrangement between the parties concerned).

▸ Visual: ideas and information in forms that can be read or looked upon (drawing, graphic design, photograph, illustration).

▸ Receiver/decoding. Again, in our example, it may be suggested that Jim had little decoding to do; he received a simple message and did as request. However, there are many occasions when more careful consideration must be given to interpreting exactly what is meant by a specific message.

▸ Feedback. In our example, the communication sought a direct response and the result of Jim's action provided feedback to Janis that her communication had been successful. Many types of communication, however, will not carry this element, so feedback may not always be immediate; indeed, it may not be sought or received at all (passing on a piece of news to someone may not always carry a feedback element).

This model and example present communication as a simple process, but experience teaches us that a variety of factors within the elements discussed can lead to communication breakdown. Our focus is on the communication process in a training context whereby ineffective communication can have critical consequences. Therefore, trainers need to develop effective skills in presenting and receiving information and we will now set out pointers in this regard under a number of headings.

## Barriers to effective communication

Some common barriers to effective communication in training situations have been identified and they include:

▸ Message too lengthy, disorganised or containing errors, leaving it open to misinterpretation.

▸ Poorly explained information, leading to a situation where receiver finds it hard to grasp the detail of the message.

▸ Use of difficult or inappropriate words, which can hinder receiver's understanding of the message.

▸ Lack of coordination between verbal and body language, confusing the exact meaning of the message.

▸ Paralanguage refers to the pitch, volume, and, in some cases, intonation of our speech and this should be in tune with the verbal message we wish to convey.

▸ Information overload (too much information in too short a timeframe), making it difficult for a receiver to take it all in and to digest it properly.

▸ Failure to take account of the culture and background of receivers, making it difficult for them to interpret the message as you intend it.

▸ The use of jargon, abbreviations or colloquialisms, which may make sense to the sender but confuse the receiver.

▸ People hearing what they expect or want to hear, rather than what is actually said.

## Listening barriers (Trainees)

Trainers must be aware of barriers pertinent to the trainee (listener) that affect the clarity and impact of the messages being sent, such as:

‣ Reputation/credibility of the trainer.

‣ Performance/approach of the trainer.

‣ Preconceived ideas or prejudices of the trainee.

‣ Personal matters/issues that may be on a trainee's mind.

‣ Tiredness/uncomfortable training environment.

‣ External noise/interruptions.

## Active Listening (Trainer)

It is also important that trainers themselves are active listeners. This means keeping an open channel of communication by:

‣ Paying close attention and keeping an open mind on what is being said.

‣ Paraphrasing (summarising & repeating) what has been said to ensure correct understanding.

‣ Asking open questions.

‣ Not jumping in with one's own comments or opinions.

Sending out the right "listening" signals can also be helped by:

‣ Maintaining good eye contact.

‣ Nodding in agreement as appropriate.

‣ Using words or short phrases such as "I see," "I understand," etc.

‣ Adopting a relaxed stance.

‣ Smiling (appropriately).

## Verbal Communication

To ensure effective verbal communication in a training situation:

‣ Project your voice. Trainees should not have to strain to hear your delivery. Also, avoid trailing off at the end of sentences and/or mumbling words or phrases.

‣ Individuals tend to hear what they want to hear, so it is important to eliminate possible misunderstandings. Careful attention must be paid to the choice of words used.

‣ Avoid jargon and be aware of the tendency to use words or terms that belong exclusively to your area of expertise.

‣ Very often, it is not what is said but the way you say it that will determine the effectiveness of your message. In using your voice, particular attention must be paid to clarity, tone and inflection.

‣ Maintain an even pace and pause occasionally to allow learning points to sink in – check pace occasionally with trainees.

‣ The trainees should be the focus of attention – avoid "talking" to a screen or flip chart and maintain contact with trainees.

‣ Trainees will inevitably "switch off" if the trainer: rambles on, without making a telling point; regularly goes off at a tangent; or makes simple things sound complicated.

‣ Avoid condescending words, tone or behaviour – trainers can sound as though they are talking to a person of "less value" than themselves.

## Body Language / Non-verbal Communication

It is not only what you say in training situations that is important – your body language is also an essential part of the communication process. As trainers, we must be aware of factors that can affect the non-verbal messages we transmit. In particular:

▸ **Personal appearance.** First impressions count, so project the right image for the occasion. Any aspect of personal appearance that might prove a distraction should be avoided.

▸ **Eye contact.** Maintain your focus on trainees and scan the whole group regularly to ensure that no one feels neglected.

▸ **Facial expressions.** By smiling frequently, you will be perceived as more likeable, friendly and approachable.

▸ **Movement and gestures.** Appropriate movement and gestures can give added expression to the spoken word, make the material more interesting, and facilitate learning. Failure to gesture while speaking may create the impression that you are not enthusiastic about the subject-matter.

▸ **Stance.** The stance adopted by the trainer should be confidently assertive (rather than passive or aggressive). Standing erect, but not rigid, and leaning slightly forward communicates that you are approachable, receptive and friendly.

▸ **Positioning.** It is important to face trainees when speaking. Speaking with your back turned, looking at the floor/ceiling or reading from a screen should be avoided. It not only hinders voice projection, but it may also convey the impression that you are disinterested in your trainees. Keep trainees' sightlines clear; check this with trainees.

▸ **Distracting mannerisms** (such as jingling coins/keys in the pocket, playing with a pen/marker/etc.) should be eliminated.

## Feedback and Guidance

A further aspect of the communication process relates to the provision of feedback and guidance by the trainer. The learning process is greatly enhanced when trainees are given relevant and timely feedback on their progress. Trainees should be kept informed about whether they are improving or not, and the extent of such improvement. In addition, feedback should be related to pre-set goals and targets which are challenging but realisable.

In a training situation, there are a number of ways that trainees can receive feedback, including:

▸ Personal observation of a process or results of an action.

▸ Checks on the quality of their output.

▸ "Cues" related to the task itself (e.g., a specific sound, a flashing light, etc.).

▸ Comments from trainer, peers, or supervisor.

Feedback from the trainer falls into two broad categories – Positive and Corrective – and we will now put forward a number of pointers to help ensure that feedback given to a trainee is appropriate and effective.

**(a) Positive Feedback (Praising)**

Positive feedback is used to reinforce correct behaviour and it can have a significant effect on a trainee's motivation to improve performance. It should be given:

▸ With a specific focus (making feedback specific helps to increase its relevance to the trainee – the trainee should be told exactly what was done correctly and the impact it has in relation to performing the task).

▸ In a manner that encourages more of the same behaviour.

▸ Without "buts" (when you add a "but" to praise, the trainee tends to ignore the praise and focus on what comes after the "but"). Look for opportunities when you can provide stand-alone praise.

**(b) Corrective Feedback (Redirecting)**

▸ **Corrective feedback** is used to re-direct the trainee's behaviour. While a firm approach must be taken in giving this type of feedback, the trainer should also show understanding and offer re-assurance. It is particularly important that corrective feedback:

▸ **Follows observation.** It should be based on careful observation of the trainee's performance and given in the form of specific information. This means that we must provide examples of the trainee's behaviour that we have actually observed and can confidently refer to.

▸ **Is non-threatening.** It should not be presented in a hostile or threatening way as corrective feedback should not be a negative experience for a trainee. It is important that the trainer adopts a positive tone and displays positive body-language (e.g., no casting eyes to the heavens, sighing, etc.). Before offering feedback, the trainer should also think about how some form of encouragement can be given (e.g. "you've mastered three new skills in the past two days; don't be despondent that you are having some difficulty with this task – as a matter of fact quite a few trainees find it difficult to get to grips with it straightaway").

▸ **Is properly focused.** It should be aimed at the behaviour of the trainee and not at the trainee in any personal sense. It is important that we refer to what a trainee does, rather than to what we think or feel about him or her.

▸ **Is well-timed.** It is best to provide feedback as soon as is appropriate following the observed behaviour. Factors to take into account here include: the location (e.g., on-the-job or off-the-job, noisy environment, etc.); time (e.g. immediately prior to a lunchbreak may not be the best time); and surroundings (e.g. in the immediate vicinity of trainee's colleagues may prove embarrassing).

▸ **Affirms progress to date.** Include a reminder of the progress made to date and how well the trainee is generally doing, then summarise key points for improvement and agree actions.

**Feedback and guidance** play a very important role in the learning process and should be given on an ongoing basis. It is important that a trainer is effectively prepared; a trainee may accept feedback and action it or reject feedback and therefore not change behaviours.
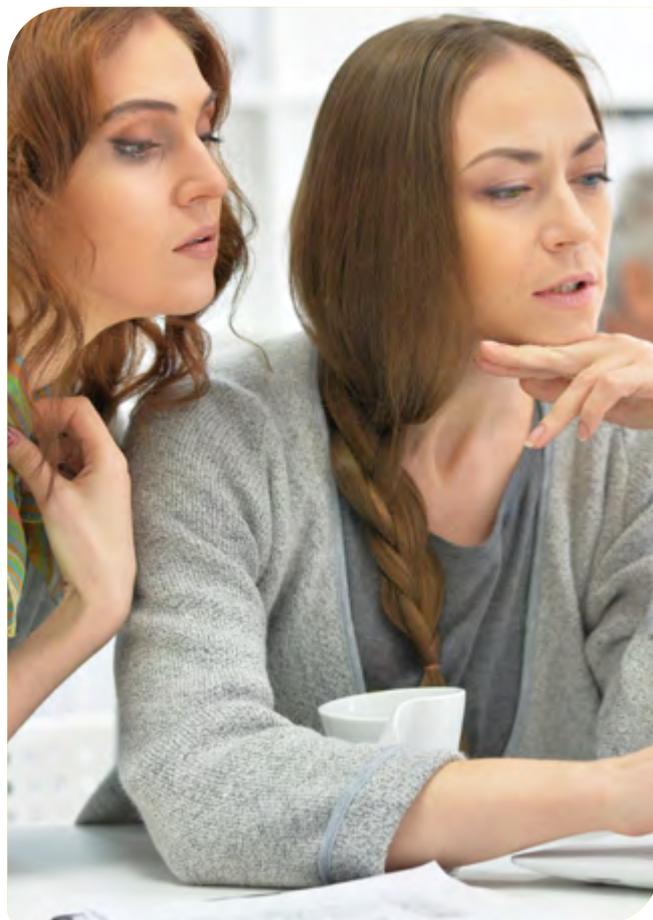
## ADULT LEARNING AND TRAINING

In the context of facilitating others' learning, trainers should be able to identify and discuss adult learning theorists, philosophical approaches and theories. In moving on to look at how these have been transferred into learning principles and conditions, let us first set out two models that link adult learning and training.

**(a) Knowledge / Skills / Attitudes**

In basic terms, learning can be defined as a process through which individuals acquire and apply knowledge, skills and attitudes (KSA). In a training situation, learning is a way of inducing change through these three elements. To take a basic example:

‣ Changing KNOWLEDGE can affect what someone knows.

‣ Changing SKILLS can affect what someone can do.

‣ Changing ATTITUDES can affect how someone behaves.

Quite simply, if an individual's knowledge, skills or attitudes have not changed during a training activity, no measurable learning has taken place.

**(b) Cognitive / Psychomotor / Affective**

Benjamin Bloom (1956) identified three domains (or types) of learning that can be linked to the knowledge, skills and attitudes model outlined above. These are:

‣ **Cognitive:** intellectual skills (knowledge)

‣ **Psychomotor:** manual or physical skills (skills)

‣ **Affective:** feelings or emotions (attitudes)

Bloom (1956) also categorised sub-divisions of these domains which is a very useful way to gauge the type and extent of learning (change) that has occurred in training situations. We will now set out selected sub- divisions (his model goes deeper but for our purposes these levels are deemed sufficient) under each domain and add practical learning examples (in brackets/ italics) at each stage.

‣ **Cognitive**

• Knowledge – recall data or information (trainee can state/list safety procedure).

• Comprehension – understand meaning of knowledge.
(trainee can summarise safety procedures in own words and explain their meaning).

• Application – use or apply knowledge.
(trainee can apply safety procedures in specific situations).

‣ **Psychomotor**

• Imitation – perform task by copying the actions of another (trainee can assemble an item by following the trainer's actions).

• Manipulation – perform task by following written or verbal instruction (trainee can assemble an item by following the trainer's verbal instruction or by following written instructions).

• Precision – perform task reliably independent of help (trainee can assemble an item correctly without assistance).

‣ **Affective**

• Receive – openness to listen or willingness to hear.
(trainee takes an interest in what a trainer is saying about the importance of good customer service).

• Respond – active participation and conformance.
(trainee participates in discussion/seeks clarification of issues surrounding the importance of good customer service).

• Value – acceptance of, or commitment to, something
(trainee affirms acceptance of notion that good customer service is important).

As we have just outlined, training involves changing or developing knowledge, skills and attitudes through learning experience. To improve a trainee's facility to undergo this change, a number of important learning principles and conditions must be followed. These are drawn from the theoretical approaches that we have discussed earlier.

## Implementing Adult Learning Principles

In previous chapters we have examined adult learning theory and how this should be taken into consideration in the design of training interventions. In the context of a trainer's role in the learning process, we will now outline some principles and conditions that may enhance a trainee's learning potential (Acknowledgement: adult learning theories previously reviewed are drawn on in a general sense throughout these principles and conditions):

▸ At the beginning of a training intervention, trainers should ensure that trainees are encouraged and assisted to identify clearly "what's in it for them". When trainees have a distinct focus on the potential benefits in terms of their work/life circumstances, their readiness and motivation for involvement is increased.

▸ Trainers should set clear objectives and goals at the beginning of a training intervention, link these to a roadmap towards attaining the personal benefits identified by trainees and seek confirmation from trainees that these are in line with their expectations.

▸ The thrust of a "pure" experiential learning approach actually goes further than this in suggesting that objectives (and even content) should be agreed between the trainer and trainee. This may be plausible in some adult learning situations but is deemed unrealistic in many work-based and academic-based learning circumstances.

▸ Trainers should seek to make training interactive and to involve trainees. Even with training interventions that traditionally might have adopted a rather strict pedagogical approach (e.g. induction training), trainers can seek opportunities to initiate interaction with trainees and to involve them as much as is practicable in the learning process.

▸ Trainees should be encouraged to take responsibility for their own learning and to discuss and self- assess their progress on an ongoing basis. The trainer's role involves creating an environment that is conducive to learning and assisting trainees in their willingness to change. In situations where self- directed learning is specifically employed, the trainer should recognise the need to provide appropriate support and guidance.

▸ Many adult learners carry years of experiences into a learning situation and the trainer should ensure that this is tapped into. Encouraging trainees to share this resource can improve the quality of the learning experience for all involved (including the trainer).

▸ Since people will only learn what they have to or want to (what they feel is relevant to them). Trainers should ensure that the level of the instruction, and the manner in which it is given, is relevant to the trainee's development at any particular point.

▸ Trainer should make the subject-matter as interesting as possible and provide opportunities for trainees to discover for themselves how their actions and behaviour affect the process.

▸ Simple exercises that allow trainees to test their evolving levels of knowledge and skill should be introduced by the trainer as appropriate and, as already outlined, early feedback helps to consolidate and accelerate learning.

▸ Trainers' instructions must be clear, unambiguous, and given in a specific manner when approaching a task. Such instructions will often include some measure of the action or behaviour to be employed.

▸ With skill-based learning in particular, trainers should build ample opportunities for practice into the training situation to allow the trainee to experiment with the new learning acquired and to refine their skills to an acceptable level.

## Supporting Learning Progress

Trainees can move through various stages when learning tasks associated with a job, especially if those tasks take time to master. As the trainee moves through these stages, the trainer must adopt a flexible approach. This means using different training styles and giving different levels of feedback and guidance. We will now outline the various stages of learning and the associated training approaches.

## Stage 1

▸ Trainee Mindset: Enthusiastic
▸ Trainer Approach: Directing

At the beginning of the activity, the trainee is usually very enthusiastic, but has little idea of what needs to be learned (is unconsciously incompetent). At this initial stage of learning the trainee is largely dependent on the direction set by the trainer. With the trainees enthusiastic and ready to go, they should be given complete, clear and specific instructions.

Example: Leonard has joined group swimming lessons over a number of sessions. We can suggest that he is enthusiastic – after all he has signed up and paid a fee. We can also visualise his mindset at the beginning of the first session – he has no idea what the first steps are in learning to swim or what to do to begin. Therefore, Leonard waits for the swimming instructor to direct proceedings.

## Stage 2

▸ Trainee Mindset: Disillusioned
▸ Trainer Approach: Providing feedback, guidance and assistance.

At this stage the trainee knows what needs to be learned but cannot as yet manage to perform the task (is consciously incompetent). The trainee may have attempted the task and not fully succeeded and may feel somewhat disillusioned. This is usually the "trial

and error" period and the trainer should take on an assisting type of role, indicating deviations from the correct approach and guiding the trainee's efforts. The trainer should also ensure to check understanding, clarify areas of concern, offer encouragement and be open to comments and/or questions.

Example: Leonard has learned to hold the side of the pool and practice kicking his legs.

He has also begun to attempt crossing the shallow end of the pool by holding a float in front of outstretched arms and kicking his legs. However, sometimes he makes progress and at other times, despite kicking furiously, he remains static. As Leonard sees his some of his fellow-learners zip past, he begins to feel disillusioned – "what's wrong with me, I'm kicking my legs but I'm not going anywhere".

Now he relies on the guidance and assistance of the instructor to point out what he needs to change in order to propel himself across the pool.

## Stage 3

▸ Trainee Mindset: Reluctant
▸ Trainer approach: Re-assuring and supporting.

The trainee has now learned how to perform the task but lacks the confidence to perform on a continuous basis without support (consciously competent). The trainer offers support in the form of encouragement, re-assurance and praise, while re-emphasising key learning points and ensuring that the task is being performed correctly.

Example: Leonard has made excellent progress and has advanced to the stage where he can swim comfortably, without using a float, across the shallow end of the pool.

However, when the instructor says "Okay, you've all done well so far, now let's go down to the deep end and swim across the pool at that water level", Leonard's

heart skips a beat. He wonders what will happen if he makes a mistake and fails to get across. Realising that he will be out of his depth, he is somewhat reluctant. Even though he has proven to the instructor and to himself that he can swim across the pool, he is lacking in confidence. At this point, the instructor offers the re-assurance that she will be at hand if anything untoward should happen and reminds him that he has already demonstrated his ability to swim across. She also stresses key learning points and encourages him to show her how well he has learned.

## Stage 4

▸ Trainee Mindset: Willing & Able
▸ Trainer Approach: Delegating

The trainee is now able to perform the task automatically, to the required standard, and on a continuous basis, without support (unconsciously competent). The trainee has demonstrated that the required standard of performance has been achieved and the trainer can now delegate the task – with a reminder that assistance is always available if a problem arises in the future.

Example: By the final session, Leonard has progressed to swimming lengths of the pool while confidently and automatically following the strokes he has learned. He thanks the instructor, who congratulates him and tells him to feel free to ask for advice if a problem arises in the future.

It is important to consider these stages of the learning process and the attendant approach of the trainer in flexible terms. Moving too quickly from either approach may cause anxiety for some trainees as they may feel that needed support is no longer available.

Note: Some debate exists about a possible fifth stage in the learning process and on the efficacy of using terms like "unconsciously incompetent" to describe the "state" of a learner at the beginning of a learning activity.

## EQUALITY AND DIVERSITY ISSUES FOR TRAINERS

To begin with, it is important to state that this section is included to provide guidelines about equality and diversity issues of particular relevance to trainers. Legislation in this area is subject to ongoing development and change – it is the responsibility of individual trainers to ensure that they keep fully up to date with aspects of legislation that specifically affect them in the workplace. Recent legislation promotes the ethos of equality in the workplace by the accommodation of diversity in both principle and practice. It prohibits discrimination (both direct and indirect) in areas of life other than employment, mainly in the provision of services.

It is important that trainers should know the terms and concepts related to equality and inequality matters in a general and in a training context (e.g. characteristics used as a pretext for unequal treatment and the process underlying inequality). Trainers must adopt appropriate language, and practice equality for people with disabilities. They should display an ability to carry out training using appropriate language and behaviour in relation to matters of equality and diversity. This section sets out a number of important concepts and definitions in this regard.

## Equality Values – The Equal Status Acts 2000 to 2004

These Acts apply to people who: buy and sell a wide variety of goods; use or provide a wide range of services; obtain or dispose of accommodation; attend at or are in charge of educational establishments. The Acts:

- Promote Equality.
- Prohibit certain kinds of discrimination (with some exemptions) across nine grounds.
- Prohibit sexual harassment and harassment.
- Prohibit victimisation.
- Require reasonable accommodation of people with disabilities.
- Allow a broad range of positive action measures.

## Grounds for Discrimination – The Equal Status Acts 2000 to 2004

- These Acts prohibit discrimination on the following nine grounds:
- Gender: a man, a woman or a transsexual person.
- Marital status: single, married, separated, divorced or widowed.
- Family status: pregnant, a parent of a person under 18 years or the resident primary carer or parent of a person with a disability.
- Sexual orientation: gay, lesbian, bisexual or heterosexual.
- Religion: different religious belief, background, outlook or none.
- Age: this only applies to people over 18 except for the provision of car insurance to licensed drivers under that age.
- Disability: this is broadly defined including people with physical, intellectual, learning, cognitive or emotional disabilities and a range of medical conditions.
- Race: a particular race, skin colour, nationality or ethnic origin.
- Traveller community: people who are commonly called Travellers, who are identified both by Travellers and others as people with a shared history, culture and traditions, identified historically as a nomadic way of life on the island of Ireland.

## Types of discrimination

Discrimination has a specific meaning in the Acts and there are different types of discrimination covered, including direct, indirect, by imputation and by association.

(a) **Direct Discrimination** – is defined as the treatment of a person in a less favourable way than another person is, has been or would be treated in a comparable situation on any of the nine grounds, or is imputed to the person concerned.

(b) **Indirect Discrimination** – happens where there is less favourable treatment by impact or effect. It occurs where people are, for example, refused a service not explicitly on account of a discriminatory reason but because of a provision, practice or requirement which they find hard to satisfy.
If the provision, practice or requirement puts people who belong to one of the grounds covered by the Acts at a particular disadvantage, then the service provider will have indirectly discriminated, unless the provision is objectively justified by a legitimate aim and the means of achieving that aim are appropriate and necessary.

(c) **Discrimination by Association** – this happens where a person associated with another person (belonging to the discriminatory grounds) is treated less favourably because of that association.

## Treatment of people with a disability

A person selling goods or providing services, a person selling or letting accommodation or providing accommodation, educational institutions and clubs must do all that is reasonable to accommodate the needs of a person with a disability. This involves providing special treatment or facilities in circumstances where without these, it would be impossible or unduly difficult to avail of the goods, services, accommodation, etc.

However, they are not obliged to provide special facilities or treatment when this costs more than what is called a nominal cost.

What amounts to nominal cost will depend on the circumstances such as the size and resources of the body involved. If the State provides grants or aids for assisting in providing special treatment or facilities, there may be an onus on the service providers etc., to avail of these grants.

## Harassment / Sexual harassment

What exactly is meant by harassment and sexual harassment?

‣ Harassment is any form of unwanted conduct related to any of the discriminatory grounds.
‣ Sexual harassment is any form of unwanted verbal, nonverbal or physical conduct of a sexual nature.

In both cases, it is conduct which has the purpose or effect of violating a person's dignity and creating an intimidating, hostile, degrading, humiliating or offensive environment for the person. In both cases the unwanted conduct may include acts, requests, spoken words, gestures or the production, display or circulation of written words, pictures or other material. A person's rejection of, or submission to, sexual or other harassment may not be used by any other person as a basis for a decision affecting that person.

Note: Responsible person – A person who is responsible for the operation of any place that is an educational institution or where goods, facilities or services are offered to the public or a person who provides accommodation must ensure that any person who has a right to be there is not sexually harassed or harassed. The 'responsible person' will be liable for the sexual harassment or harassment unless he or she took reasonably practicable steps to prevent it.

## Positive measures

The Acts allow preferential treatment or the taking of positive measures which are bona fide intended to: promote equality of opportunity for disadvantaged persons; cater for the special needs of persons, or a category of persons who because of their circumstances, may require facilities, arrangements, services or assistance.

## Employment Equality Act 1998

This Act was amended by the Equality Act 2004. Together they are known as the Employment Equality Acts 1998 and 2004. Their aims and provisions are similar to the Equal Status Acts 2000 to 2004 but are focused specifically on aspects of employment. Aspects of employment that are covered include: Advertising; Equal pay; Access to employment; Vocational training and work experience; Terms and conditions of employment; Promotion or re-grading; Classification of posts; Dismissal/Collective agreements.

The Acts apply to: Full-time, part-time and temporary employees; public and private sector employment; vocational training bodies; employment agencies; trade unions, professional and trade bodies. The Acts also extend to the self-employed; partnerships; people employed in another person's home.

## Promoting an Equal Learning Environment

Promoting equality, diversity, and inclusion (EDI) in training environments is essential for creating a supportive, respectful, and equitable learning environment where all individuals can thrive. Here are some key strategies for fostering EDI in training environments:

1. **Establish Clear Policies and Commitments:** Training providers should develop and communicate clear policies and commitments regarding equality, diversity, and inclusion. This includes stating zero tolerance for discrimination, harassment, or bias in any form and outlining procedures for reporting and addressing such incidents.

2. **Diverse Representation:** Ensure that training materials, examples, case studies, and resources reflect the diversity of participants' backgrounds, experiences, and identities. Incorporate diverse perspectives and voices to enrich learning experiences and promote understanding and empathy among participants.

3. **Inclusive Curriculum Design:** Design training curricula and materials with a focus on inclusivity and accessibility. Consider diverse learning styles, preferences, and needs when developing instructional content and activities. Provide options for customization and flexibility to accommodate individual differences.

4. **Promote Cultural Competence:** Offer training and professional development opportunities to enhance participants' cultural competence and awareness of diversity issues. Provide resources and guidance on recognizing and challenging biases, stereotypes, and assumptions to create a more inclusive learning environment.

5. **Facilitate Open Dialogue and Discussion:** Create opportunities for open dialogue, discussion, and reflection on diversity and inclusion topics within training sessions. Encourage participants to share their perspectives, experiences, and questions in a safe and respectful space. Facilitate constructive conversations that promote learning, empathy, and understanding.

6. **Address Unconscious Bias:** Raise awareness of unconscious bias and its impact on training environments. Provide training facilitators and participants with tools and strategies for mitigating bias in decision-making, communication, and interactions. Encourage self-reflection and ongoing dialogue about bias and its effects.

7. **Accessible Learning Environments:** Ensure that training facilities and materials are accessible to all participants, including those with disabilities or other accessibility needs. Provide accommodations and support services as needed to ensure equal access to training opportunities for everyone.

8. **Monitor and Evaluate Progress:** Regularly monitor and evaluate the effectiveness of EDI initiatives in training environments. Collect feedback from participants to assess the impact of training interventions on their experiences, attitudes, and behaviours related to diversity and inclusion. Use data and feedback to identify areas for improvement and adjust strategies accordingly.

9. **Collaborate with Diversity Partners:** Collaborate with external organizations, experts, or community partners specializing in diversity, equity, and inclusion to enhance training offerings and promote EDI goals. Seek input and guidance from diverse stakeholders to ensure that training initiatives are inclusive and relevant to the needs of diverse communities.

By implementing these strategies, training providers can create inclusive and empowering learning environments that celebrate diversity, promote equity, and foster a culture of respect and belonging for all participants.

# GROUP LEARNING AND GROUP DYNAMICS

A trainer often has to work with more than one trainee and in any situation where a group is involved certain dynamics must be taken into account. The trainer therefore needs to have a basic understanding of how best to handle situations where individuals, or the group as a whole, do not seem to be working well together.

We have already outlined the fact that trainers must be aware of the diversity of trainees. All trainees have individual personality traits and this is usually reflected in their behaviour and attitude during training activities. In general, this poses little by way of problems for the trainer. However, at times special attention must be given to certain trainees. Let us now look at some examples in this regard.

**(a) "Problem" Trainees**

‣ Shy/Withdrawn Trainee – often introverted by nature, a shy or withdrawn trainee may feel out of place and may be reluctant to get involved in exercises or discussions. The trainer should be careful not to place such a trainee in the "spotlight", especially in the early stages of a training activity. Involvement in smaller group discussions may come easier to this type of trainee at first and later through gentle encouragement may gradually become fully involved.

‣ Unenthusiastic/Disinterested Trainee – may demonstrate a complete lack of interest or concern. There may be many reasons why a trainee acts in this manner, such as: culture of the organisation; personal or work situations; or lack of pre-briefing by team leader/manager. As discussed previously, assistance with identifying the potential benefits of the training activity may help to increase interest. The trainer can also try to involve this type of trainee by asking about their work or by direct involvement in some activity.

‣ Know-all/Show-off – often attempts to dominate proceedings and monopolise discussions and questions. Trainers should be careful not to confuse an enthusiastic trainee with one who seems to act as a know-all/show-off. This type of trainee becomes problematic if other group members are seen to react negatively in the wake of persistent attempted dominance. The trainer does need to interrupt tactfully to limit their contributions. It is often useful to throw open up their contributions to the general comments of the group.

‣ Disruptive/Negative Trainee – commonly reflects someone with a "chip" on their shoulder who decides to use the training situation to "unload" their grievances. If a trainee's disruptive behaviour is blatantly interfering with the learning of the group, the trainer must take action. It may be useful to contrive a break in proceedings – perhaps organising small group discussions – which will provide an opportunity to request a private chat in a convenient location outside of the training room.

Note: See below for helpful suggestions in managing conflict situations.

## Creating a positive learning environment

If it becomes apparent that a learning group is not working as well as might be expected, the trainer needs to make an assessment and attempt to remedy the situation. It is important to ensure that both task (what is to be achieved) and maintenance (how it will be achieved) processes are being adequately catered for in group terms. We have previously referred to the need for the trainer to create a positive learning environment. When working with a group of trainees, this means being aware of the occasional need to manage conflict, reduce friction, promote harmony, and lift morale. In particular, trainers should:

- Promote an environment of trust and respect (between trainer and trainees, and between trainees themselves).
- Encourage trainees to ask questions and to discuss issues.
- Reduce or remove elements of the learning environment that may lead to fear and/or perceived failure.
- Plan activities to allow learners to meet esteem needs (set realistic goals, provide feedback and give recognition as appropriate).

## Managing conflict

It is quite unusual for significant conflict to arise during training. However, this is always a possibility, and trainers should have the competence to address any such situation confidently. In saying this, it should be remembered that there is no "guaranteed" solution and what works in one situation may not prove as successful on another occasion. Nonetheless, there are recognised steps that can be followed in dealing with conflict and we will now set these out.

- Ensure that the setting is appropriate. It is generally best to try and isolate the individual(s) who is the source of the conflict, rather than attempting to tackle the issue in front of the learning group. Organising a short exercise can allow the opportunity to invite the individual(s) concerned to a location outside of the training room. Note: A disruptive trainee may also be "managed" by the learning group; however, it may improve the environment if the trainer manages the conflict.
- Adopt a constructive problem-solving approach. It's important to be assertive (rather than aggressive or passive) in seeking to gain agreement that there is a "problem" in the first place (e.g. that the individual's behaviour is causing a problem in terms of the learning process). Avoid personalising; keep people and issues separate. Recognise that in many cases the individual is not just "being difficult" and that real and valid issues can lie behind their feelings and actions.

- Encourage the individual to share his or her issues as fully as possible. Use active listening skills to ensure you hear and understand the individual's position and perceptions. Do not interrupt.
- Clarify the issues. Rather than making assumptions, ask questions that allow you to gain this information, and which let the other person know that you are trying to understand.
- Restate what you have heard. This shows that you have been actively listening and also sets out a common understanding of the issues.
- Validate the individual's opinion (but not behaviour). While you disagree with the individual's behaviour, expressing appreciation that the rationale for this has been shared with you can be a very powerful message if it is conveyed with integrity and respect.
- Communicate your concerns as clearly and specifically as possible. Assertive communication is the process of conveying one's needs and concerns clearly and specifically, while respecting the needs of the other party. Stay focused on your "desired outcomes" from this conversation (e.g. that the learning process will not continue to be affected by the behaviour of the individual).
- Be prepared for a defensive (or perhaps even a hostile) response. Although you have adopted a problem-solving approach, the individual may not agree to fall into line with your desired outcome. In this situation, it is important to maintain a calm, assertive manner.
- Hold to a bottom-line position. In general conflict situations in the workplace, agreement may be reached on a workable compromise or perhaps on the involvement of a third party to arbitrate.

However, in training situations a bottom-line position, that others' learning cannot be disrupted by an individual's actions, must be maintained. Ultimately, it may be necessary to request that the individual concerned does not return to the training location.

## PERSONAL DEVELOPMENT

In-house training skills are vital to facilitate both individual "Lifelong Learning" and the "Learning Organisation". Trainers can make a valuable contribution to learning processes by exercising their skills in areas such as:

▸ The identification of learning needs.
▸ Individual coaching and mentoring.
▸ Effective training delivery.
▸ Facilitation.
▸ Helping people to "learn how to learn".
▸ Induction/orientation of new employees.
▸ Acting as "change agents" to encourage others to learn.
▸ Acting as in-house training advisors and sources of information.
▸ Linking training and learning to strategic organisational objectives.

To make such a contribution, trainers need take account of issues surrounding their personal development and we will now set out some points for consideration with regard to these.

▸ **Lifelong Learning –** an important aspect of "Lifelong Learning" is the continuous development of trainers themselves. Trainers should remain abreast of current trends and techniques in both their industry sector and in training practice. A variety of means are available for trainers to do this.
▸ **Continuous Professional Development –** professional bodies such as the L&DI and CIPD encourage members to engage in Continuous Professional Development (CPD) and provide a range of opportunities in this regard. These include the promotion and provision of a range of formal education and training programmes. Through these and similar bodies, other activities are organised that can also play a part in CPD, namely: conferences, seminars, professional research, workshops, breakfast meetings, etc.

▸ **Ongoing learning and development do not necessarily need to be of a formal nature (i.e. attending courses) –** we learn something new (or should do) through each experience that we undergo. What is required to learn from our day-to-day experiences is the awareness that a learning opportunity has presented itself and the willingness to gain something useful from the event. The following pointers highlight a number of ways that we can develop ourselves from the seemingly normal events that occur on a regular basis.
▸ **Learning from meetings and briefings –** meetings are not only a good opportunity to keep up to date on current events, but they are also an opportunity to develop our own knowledge and insights. Observing the behaviour of others at meetings is a good way to identify effective (and not so effective) working styles and habits. Meetings are also a good opportunity to ask questions that may enable us to improve our own job and organisational knowledge.
▸ **Learning from someone else's success –** taking note of people in our organisations that appear to be effective and successful. Note how they operate, identify what makes them successful, and speak to them about how they "get things done". Use them as personal models of "good practice". Watching a variety of trainers at work is one of the best ways of developing new insights for your "toolkit".
▸ **Learning from observing other people's results –** remember the saying, "I have seen farther by standing on the shoulders of others". Observing other people's successes and failures can provide us with useful learning insights. What caused a certain course of action to succeed or fail? An example of failure can be compared with one of success, to identify what makes the difference.

▸ **Learning from ineffective and incompetent people or angry customers –** "bad" trainers, managers or service staff can also be useful as a learning resource. Recognising actions and characteristics are one way of identifying behaviours that we should not copy. Ineffective people and difficult customers can also give us a chance to practice handling our own emotions effectively and to build our social robustness. Understanding why they behave as they do is a valuable insight.

▸ **Learning by acknowledging mistakes –** we have all made mistakes and, if confronted properly, they should provide lessons to be learned. Through mistakes, we can learn to understand our strengths and weaknesses and recognise opportunities for change.

▸ **Learning through experience and acknowledging success –** our own confidence grows through experience. The successes that we achieve through our endeavours (as individuals or as part of a group) should be analysed and examined for learning points. Success breeds success and develops the courage to tackle greater challenges.

▸ **Learning through discussing tasks –** "a problem shared is a problem solved" – the expertise of others is an important resource and we should shamelessly tap into this. Brainstorming is a proven method of developing alternative strategies to deal with workplace challenges. Discussing issues with others also gives us a focus for learning and shared learning is often easier than doing it alone.

▸ **Learning from being flexible –** flexibility is an important life skill. If we overcome our inherent fear of change, we can expose ourselves to a wealth of new experiences and learning. Flexibility allows us to adapt to changing circumstances and helps us not to panic when events do not go according to plan.

▸ **Learning through feedback and criticism –** a natural response when faced with critical feedback is to be defensive. If we can look past our instinctive reactions to critical feedback, we can learn from both the feedback and the events leading up to it.

▸ **Learning by being actively curious –** curiosity may "kill the cat" but can seldom be damaging from a learning viewpoint. Questions are a good way to take the initiative, influence a situation and gain more information. Effective questioning can also update and clarify our existing knowledge.

## SUMMARY

In this chapter we have examined the role and competences of those involved directly in training others. In line with the critical responsibility of assisting learners to achieve the objectives set at the design stage of the T & D process, we have initially identified important characteristics of an effective trainer. Subsequently, we discussed key factors involved in demonstrating effective communication and feedback skills, understanding and implementing a range of adult learning principles and overseeing an appropriate ethos of equality and diversity. Finally, we address issues surrounding group dynamics and present a number of points for consideration with regard to a trainer's personal and professional development.

# Preparing for Training Delivery

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

- ▸ Devise appropriate strategies to address a range of issues pertinent to trainees.
- ▸ Choose and develop relevant learning aids and materials for specific training events.
- ▸ Plan and organise an appropriate location for a training event.
- ▸ Identify the benefits of rehearsing training delivery.

# INTRODUCTION

The effective delivery of a training programme/session (hereafter called "event") is not accidental; it will invariably have been planned and prepared for in a meticulous manner. However, the nature of planning and preparation may vary according to circumstances. For example, the following questions may be asked:

▸ Is this the first time that the training event is being delivered (in the organisation)?
 • If so, the trainer has no internal source of experience to refer to.
▸ Is this the trainer's first time delivering this particular training event?
 • If the training event has been delivered previously, though not by the trainer in question, the previous trainer may be available to share experiences.
 • Furthermore, existing evaluation documentation may prove a useful source of reference.
▸ Has the trainer been involved in the design and development stages of the training?
 • If the trainer has been involved, it may be suggested that he/she will have some familiarity with the content, materials, objectives, proposed training methods, etc.
▸ Has the trainer responsibility for preparing training materials or is it a "packaged" solution?
 • A trainer responsible for delivering a "packaged" training event will have little control over the material included.

The above points reflect just a few examples – many more could be put forward. Nonetheless, we can attempt to set out a number of issues that are seen as critical in a generic sense in planning and preparing a training session.

# TRAINEE CONSIDERATIONS

Trainees are the most important ingredient in any training situation – after all it is for their benefit (and that of the organisation) that training is being organised. Therefore, trainees should be the first consideration in preparing to deliver a training event and we will now outline a range of issues in this regard.

## Diversity

We have already examined some of the factors involved in trainee diversity. At this planning and organising stage, therefore, it is important to gather as much information as possible. While it is not always feasible to gain an in-depth insight on every trainee, it should certainly be possible to identify some critical details and prepare accordingly to cater for:

(a) **Background / Emotional Disposition / Previous Experiences**
▸ Literacy and education levels of trainees may be varied, so, where possible, it is best to include words that are commonly used and to avoid long or relatively obscure terms when a simpler form will suffice.
▸ Some trainees may have low levels of self-esteem or confidence and trainers should plan to ensure that such individuals are set at ease and made to feel comfortable in the training environment. For instance, they may be reassured by knowing at the outset that people learn at different speeds, that some skills are not always mastered immediately, etc.
▸ Some trainees may associate training with previous negative or unpleasant situations. Again, trainers should plan to ensure that such individuals are set at ease and made to feel comfortable in the training environment. It may be beneficial to outline the format of training at the beginning of the training session, and to explain that trainees will be welcome to ask questions or seek clarification at any stage.

**(b) Age**

A number of issues must be considered in relation to the age of trainees. Many of these are associated with generalised expectations about "older" and "younger" trainees. It is very important for trainers to realise (and acknowledge) that these are just generalisations and that many trainees will not follow expectations along these lines. However, trainers must also plan for situations where such expectations do come to light.

▸ **"Older" trainees may:**
- feel that it is not worth their while learning something new.
- resent being trained by someone younger than themselves.
- be very reluctant to change to a new way of performing a task.
- be willing to learn, but lacking in confidence; and/or
- be very experienced and therefore require "refresher" training only.

▸ **Trainers must plan to address these issues, and may consider:**
- explaining clearly at the outset why the training is necessary.
- acknowledging trainee's previous experience.
- giving details of their own levels of expertise (in terms of the job/task
- and of delivering training).
- offering encouragement and putting the trainee at ease; and
- placing practice before theory.

▸ **"Younger" trainees may:**
- be over-confident and want to move ahead too quickly.
- be nervous or uncertain (especially if their work experience is limited); and/or
- expect that training will be similar in approach to school/college.

▸ **Trainers must plan to address these issues, and may consider:**
- testing trainee's learning at regular intervals.
- offering encouragement and putting the trainee at ease; and
- outlining at the outset the training methods that will be adopted.

**(c) Learning styles**

The learning styles of trainees must be considered when planning a training session. In some training situations it can prove difficult to cater for every trainee's needs in this respect, but, where possible, training activities should include a mixture of theoretical and practical elements. In this regard, it is useful at this planning stage to consider some specific training delivery methods appropriate to learning styles previously outlined.

▸ **Activitist:** problem-solving; games; role playing; and "hands-on" practical exercises.

▸ **Reflector:** observing (trainer/fellow trainees); reviews; and structured activities.

▸ **Pragmatist:** techniques that have a practical application; models that can be emulated; action plans; and learning activities that involve "real" situations.

▸ **Theorist:** models, concepts and theories; intellectually focused challenges; listening to or reading about interesting concepts; and structured activities with a clear purpose.

**(d) Learning difficulties**

Training for those with special learning needs requires specific expertise and does not come under the remit of this programme. However, in planning and organising training activities, trainers must always consider the possibility that some trainees may have learning difficulties. In such instances, the trainer must plan to ensure that learning is facilitated. We will now look at some examples in this context.

▸ **Hearing.** Trainee may be partially or totally deaf. Trainers should be aware that the trainee may need: to rely on lip-reading; the services of someone using sign language; and/or sub-titles if a DVD is being shown.

▸ **Sight.** Trainee may have poor eyesight. Trainers need to: position the trainee closer to screen, etc.; and ensure all visual displays are large enough to be read comfortably.

▸ **Wheelchair-bound trainee.** Trainers must ensure that facilities are adequate (ramps, lifts, toilet, required space, etc.).

▸ **Dyslexia (& related conditions).** Trainee may: have difficulty reading projected images and workbooks; suffer from short-term memory problems; have difficulty maintaining concentration for long periods of time; and/or have difficulty in processing steps logically. Trainers should be aware that trainees can be adversely affected by fluorescent lighting (can cause nausea/headaches); shine on white boards; coloured chalk or markers; handwritten materials. Trainers should also: provide copies of slides/workbooks in advance; remember not to overcrowd slides; remember not to use long or complicated words where possible; make blank-coloured acetates available (for viewing slides through).

In all cases where trainees may be affected by a learning difficulty, it is critical that the trainer consults with the trainee at regular intervals to ensure that facilities, learning aids, and learning approaches are appropriate to their needs.

# CHOOSING AND PREPARING LEARNING AIDS

Different combinations of percentages are proposed in relation to the impact of seeing and hearing during the learning process. Even if we isolate "hearing" it's difficult to find consensus about whether the words used or the way that they are delivered has the greatest impact or to what extent. There is general agreement, however, that the effective use of learning aids can make training more interesting and also help to improve retention of information presented. Learning aids, therefore, represent any supporting tools or materials that serve to assist trainees' learning and they are an important feature in the delivery of training. A range of options exist when choosing learning aids for a training session and it may be useful to initially consider the following:

▸ Are the planned learning aids available?

▸ Are they most suitable for purpose?

▸ Will they mean that extra preparation time is required?

▸ Will extra power sources be required?

▸ Are the materials up to date?

▸ Are they easily understandable?

It is also important to bear in mind that learning aids are often misused in training situations and that proper planning and preparation is required.

## Visual Aids – Advantages and Disadvantages

The term "visual" may be applied to many supporting tools and materials but it commonly relates to the use of LCD projector/PowerPoint, flip chart, interactive boards, DVD, video, screen share and handouts. Note: Overhead projector is omitted (as an "out-of-fashion" aid).

According to Garavan et al (2003), there is evidence to indicate that visual aids are very valuable in training situations as they can:

▸ Shorten the time to understand concepts and increase comprehension by up to 73%.

▸ Increase participant interaction and motivation by up to 80%.

▸ Make the message 43% more persuasive.

▸ Make a presentation up to 50% more memorable.

▸ Accelerate learning, retention and recall by between 55% and 95%.

We will now outline advantages and disadvantages of particular visual aids.

**(a) LCD Projector / PowerPoint**
**Advantages include:**

▸ Adds colour, vibrancy, and movement to display.

▸ Makes it possible to change image at the press of a single key.

▸ Can project professional image.

▸ It is easy to change or add slides.

▸ Application is very portable.
**Disadvantages include:**

▸ Method may detract from message (more focus on what it can do than on contents).

▸ It may be relied on too heavily or poorly used (making for very passive periods during a training session).

▸ Potential technical glitches.

**(b) Flip chart**
**Advantages include:**

▸ Helps to provide common focus.

▸ Interactive method of presenting key points, etc.

▸ Interactive method of gathering points from trainees.

▸ Information can be retained.
**Disadvantages include:**

▸ Requires practice to write quickly and legibly.

▸ Requires good spelling ability.

**(c) Interactive white board**
**Advantages include:**

▸ Interactive method of presenting key points, etc.

▸ Can be linked to web-based resources.

▸ Can be connected to speakers and other devices.

▸ Offers a range of interactive resources (clock, spinner, dice, etc.).

▸ Applications may be manipulated by users.

▸ Can be used as interactive flip chart and work may be saved.
**Disadvantages include:**

▸ Cost.

▸ Over-use may detract from essential message.

▸ Fun and excitement elements may supersede critical learning elements.

▸ Technical glitches.

**(d) Video / Film**
**Advantages include:**

▸ Helps to add interest.

▸ Provides change of pace.

▸ Useful to reinforce key points.

▸ Can be customised for very specific focus.
**Disadvantages include:**

▸ Very passive for trainees.

▸ Some trainees may lose concentration.

▸ May be too general.

▸ May have embedded cultural differences.

▸ May be outdated in ways that detract from the intended message.

**(e) Workbooks / Handouts**
**Advantages include:**

▸ Provides point of reference to trainees following training.

▸ Trainees can add personal notes.
**Disadvantages include:**

▸ Care must be taken that all information is accurate and up to date.

▸ May prove time-consuming to compile.

## Visual Aids – Technological Developments

Rapid development of technology has enabled trainers to remotely deliver training without any geographical limitations and expense incurred.

▸ Facilities such as WEBEX, share screen, video conferencing and office communication systems have many advantages as previously outlined. However, it is worth noting some specific difficulties associated with presenting in a remote environment, including:

▸ **Technical problems.** Technical difficulties associated with smooth transmission that can arise from software, hardware or network failure. Remote connections may also be hampered by environmental changes. Furthermore, the absence of technical support personnel can create difficulty for participants who are unfamiliar with the technology being used.

▸ **Lack of personal interaction.** While remote training technologies offer increasing options for interactivity between trainer and trainees and between individuals in learning groups, certain elements of personal interaction are still inhibited. The personal touch, in a shared physical environment, which arises from: a handshake; direct eye contact; group discussions and exercises; and gathering together at break times, are potentially positive elements of a learning environment that cannot be replicated remotely.

▸ **High cost of setup.** Setting up video conferencing and associated facilities can prove an expensive investment for some organisations (especially those in the small/medium category). Simple features may fall within budget capacity but advanced features will require higher expenditure that may be prohibitive.

We have previously referred to the pace of advancement in learning technologies and the fact that this is likely to continue. In a situation where every type of employment will potentially have an information technology element, and where trainees are more likely to arrive at a training location with a "tablet" rather than a notebook, learning management will also be subject to major change. Trainers must therefore keep abreast of developments in learning technology and feed this into decision-making around the choice of learning aids for training events.

With a wide range of options to choose from, trainers must identify which visual aids will be most useful in assisting trainees' learning. It is also critical that trainers are proficient in the use of chosen technologies to ensure smooth delivery.

## Preparing visual aids

At the outset, it must be stressed that visual aids must be focused on assisting trainees' learning – they are not meant to provide a support system for a badly-prepared trainer!

When preparing visual aids trainers should always remember a three-word mantra –

## Clear / Simple / Professional.

We will now offer some suggestions to consider when preparing visual aids.

**(a) LCD Projector / PowerPoint**

▸ Make sure the text is big enough to be comfortably read by all trainees. The minimum font size advisable = 24.

▸ **Make all text "bold".** This makes it stand out better and easier to read.

▸ Do not overcrowd slides with text; use bulleted key points. A common practice for some trainers is to have the full text of their content on slides. This results in a very formal and stilted delivery. The most appropriate way to use PowerPoint is to introduce a key summary phrase and proceed to elaborate on this in a conversational style. Written notes and/or PowerPoint notes facility can be used by a trainer for access to expanded information if required.

▸ An exception to bulleted key points may arise if images of specific documentation or text are deemed necessary (e.g. policy statement/legal statement). In such circumstances, it is advisable to give trainees a handout of the material.

▸ In some training events (e.g. computerised systems), it is necessary to project images of a computer screen where the detail is commonly small, so, it is advisable to provide a handout of slides for trainees.

▸ Maximum bullet points advisable on a single slide = eight (five or six is considered optimum). Always insert spaces between bullet points on slides – it can be confusing for trainees to view a "muddle" of bullet points.

▸ Choose a plain background for slides, with a mild colour, and keep colour and animation schemes consistent and simple. Remember that certain combinations of background and text tend to produce poor visual results (blue on red/vice-versa). Avoid garish colour schemes at all costs!

▸ When using "custom animation" to introduce bullet points, consider varying the number of bullet points introduced on different slides. If single bullet points are brought in each time, it can become a little tiresome and predictable. For example, if three slides in a row have six bullet points each, on one bring in single bullets, on another two at a time, on another three at a time. Decisions can be made about the suitability of each approach in terms of content, length of elaboration, etc.

▸ When using "custom animation" to introduce bullet points, "fade" and "very fast" are recommended as the most appropriate – the less movement or excitement when introducing text, the better the focus on the text (rather than the manner in which it arrived).

▸ "Timed" introduction of text is NOT recommended – this does not cater for possible questions or discussion (this facility is more suited to making presentations).

▸ Use PowerPoint to indicate specific text or areas of projected image. This can be done very effectively by using arrows, circles, etc. (we will revert to this during Chapter 10 – Delivering Training).

▸ If using arrows or circles to highlight areas of projected image, increase the "weight" of the lines and use a colour that stands out against slide background (both can be done easily through "format auto-shape" facility).

▸ To make slides more interesting, use pictures (for objects, places, people, etc.) and diagrams, rather than clip-art. Sourcing pictures is more time consuming but far more realistic, while similar clip-art items are regularly used and tend to become mundane.

▸ Avoid over-use; also known as "Death by PowerPoint". Remember to introduce further visual aids also (this can help to vary the pace of a training event).

▸ Key Point. Remember that if technology fails for whatever reason, a trainer should have prepared sufficiently to allow the training event to continue smoothly (possibly with the aid of a flip chart).

**(b) Flip Chart**

It may be suggested that flip charts are best used during interaction with trainees – often to record suggested responses to questions. However, the occasional use of prepared flip charts can help to provide a break from PowerPoint and the following suggestions are offered if planning to do this during a training event.

▸ Check that the flip charts you plan to use will fit the flip chart stand you will be using – some are affixed through different spaced holes at the top of the stand.

▸ Using flip chart pads with gridlines makes it easier to draw diagrams, to align spaces between lines of text, and to keep text along a straight line.

▸ Flip chart pads with perforations at the top are easier to detach (if it is planned to do this).

▸ Plan what you wish to write beforehand – "think" with a pencil and paper, "write" with a marker and flip chart.

▸ Use four colours only – black, blue, green and red (pink, yellow and orange may be hard for trainee to define, brown is bland and purple gaudy).

▸ Write "Big and Bold" using markers with fat tips. Some debate surrounds whether block letters (upper case) or a combination of block and lower-case letters works best.

▸ Some lower-case writing may be hard to define depending on writing style, so it may be best to test before making a final decision.

▸ A general recommendation supports the 6 x 6 rule: no more than six words per line of text and no more than six lines per flip chart page.

▸ With a light pencil, diagrams can be drawn on a flip chart page for tracing with a marker during a training event. The light pencil will not be seen by participants.

▸ Developing prepared flip charts can take a considerable amount of time and a trainer should ensure that they are started early enough to allow for review and change if necessary.

**(c) Interactive Board**

▸ A trainer should be fully conversant with all facilities and resources available through an interactive board before using this in a training event (to avoid embarrassment if a trainee asks, "Why don't you use...", "Can you not get into...", etc.).

▸ Its use should be carefully planned. When will it be used? How will it be used? What activities and exercises will be used?

▸ Check (and re-check) the safety, security and dependability of any website that may be accessed "live" during a training event.

▸ Plan to ensure that all learning styles are catered for and that the approach to using the board does not lean too heavily towards some learning styles for extended periods.

**(d) Video / Film**

▸ Plan the timing of a video/film viewing carefully (e.g. immediately following lunch is deemed a particularly unsuitable time). It is probably best to show in the immediate aftermath of trainee involvement in an exercise or activity.

▸ Plan to avoid a viewing of more than ten minutes consecutively – if it is deemed necessary to show a video/film that lasts longer, it may be best to show it in sections.

**(e) Workbooks / Handout Material**

▸ Decide whether to give out handout material before, during, or following a training session (arguments can be made for either case).

▸ Try to ensure that all photocopied material is clearly legible and avoid missing pieces of text at edges, tops and bottoms of pages.

▸ Check that all handout material is up to date; sequenced correctly; concise; grammatically correct; and referenced (where relevant).

## Other learning aids

**(a) Objects**

A wide range of objects may also be used as learning aids, including manufactured items; safety equipment; tools; mechanical parts; documents; etc. Having an object for trainees to see assists learning far better than a verbal description might. Further objects may be introduced to provide stimulation for trainees (e.g. with a specific texture, smell, etc.). When and how these may be used to greatest effect, is part of planning and preparing. A keen awareness of health and safety issues should be borne in mind when choosing items in this regard (e.g. sharp edges, toxic substances, heavy items, etc.).

**(b) Digital recording and playback**

The use of video recording (now usually referred to as "Digital Recording") and playback might be termed a training method or might be classed as a visual aid. However, we include it here as an additional learning aid. Its greatest advantage is providing the facility for trainees to see themselves performing in specific situations (training others, making presentations, being interviewed, etc.), even if these are contrived. They may also self-assess their performance, reflect on what went well and what could be improved and form action plans accordingly. Constructive feedback from fellow participants and the trainer can also assist the learning process.

When planning and preparing to use recording and playback, consider the following points.

▸ Take account of trainees' experience with video recording – it is usually best to build trainee involvement in recording sessions on a gradual basis (perhaps by beginning with a one-or two-minute session).

▸ Build in ample time for playback and feedback to ensure learning points are highlighted – this time is often underestimated.

▸ With a large group of trainees, remember that long periods of recording, playback and review may prove rather monotonous.

## CHOOSING AND PREPARING A TRAINING LOCATION

There are a number of considerations when choosing and planning the use of a location for training, including:

▸ **Room size.** Ensure that the room size appropriately caters for the planned number of trainees and for planned activities. If it is planned to break trainees into small discussion groups can the room size cope with this adequately? Groups should be able to sit in semi-circles at least and work without being crowded together.

▸ **Seating.** Seats should be comfortable without being too plush, with adequate spacing and leg room (if tables are required also). Four seating layouts are outlined and discussed by Garavan et al (1995), as follows:

▸ **Chevron seating –** rows of tables and chairs arranged at a slight diagonal that allow trainees to see some fellow participants as well as the trainer. It is seen as trainer-centred and better suited to training events focused on knowledge-acquisition.

- **Fan-type seating –** tables and chairs spread out fan-like that allow trainees to see all their fellow participants and the trainer clearly. This arrangement is suggested as ideal for good communication between trainer and trainees and for small group activity and discussion.

- **U-shaped seating –** depending on the size and shape of the room and the number of trainees, the "U" may be very long at the sides, long at the back or even-sided. It may limit the trainer's movement if trainee sightlines to visual aids are to be kept clear. A very straight-sided shape may inhibit trainees' ability to see fellow participants clearly and they may possibly find that having a full view of a screen is awkward also. This shape can be effective with an appropriately shaped and sized room.

- **Conference-style seating –** where all trainees are seated around a large table. This layout is perceived as suitable for training events requiring total group discussion and limited presentation from the trainer.

- **Break-out area –** for larger group sizes, several rooms may be required for break-out discussions and/or exercises.

- **Power sources.** Ensure that power sources are adequate and well-positioned for use of audio-visual equipment.

For computer-based training ensure that all required power sources and connections (e.g. Network points, WIFI, Hub, etc.) are available, sufficient and well-positioned.

## REHEARSING

This is often the most neglected area in the preparation phase and yet it is critical for success. Rehearsal can prove invaluable for:

- Gauging the time a training session will cover.
- Editing the content of the material.
- Becoming familiar with the material and its sequence.
- Adding confidence and smoothness to delivery.

A trainer should not confuse reviewing material with rehearsing. Proper rehearsal means going through the planned delivery and saying all the words out loud. Ideally, rehearsal should be carried out in the actual location, using the planned learning/visual aids, and with one or two colleagues as trainees (they can provide useful feedback).

## SUMMARY

Many of us can most likely recall participating in training events that that ran smoothly from start to finish; where all the pieces seemed to fit together perfectly and our concentration on learning was generally maintained throughout. A further likelihood is that the delivery of such a training event was planned and prepared for in a thorough and comprehensive manner. This chapter focuses on important issues surrounding the planning and preparation of training events, beginning with the most important element in any training activity – trainees. It continues by discussing the choice of learning aids, before offering useful tips in their preparation. Factors around the organisation of a training location are also outlined and the importance of the rehearsal stage is emphasised.

A final word on planning and preparing for training delivery – a well-prepared trainer will soon gain the confidence and respect

# Delivering Training

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify key issues related to the beginning a training event.

▸ Adopt appropriate steps and principles in maintaining a positive learning culture during training delivery.

▸ Identify specific things to do and to avoid when providing feedback to trainees.

▸ Adopt an effective approach to instruction and demonstration.

▸ Use a range of learning aids in an effective manner.

# INTRODUCTION

The delivery of training is the third stage in the systematic approach to training and, as with all four stages, the success or otherwise of the training process depends on this being carried out effectively. In previous chapters we have discussed various aspects of adult learning, outlined the role and competences of a trainer and stressed the importance of planning and preparing. In discussing key issues surrounding successful training delivery, we will revisit some of the themes covered in these chapters.

# BEGINNING A TRAINING EVENT

The first important point of note here is to arrive early. This allows time for final checks of location, notes, learning aids, handouts, etc. It also permits the trainer an opportunity to relax (a little!), to build confidence from the fact that everything is set up as planned and to greet trainees as they arrive. This helps to put trainees at their ease and can also help to lessen the "spotlight" effect that trainers often feel when they walk into a room to find a group of trainees already awaiting their arrival.

With regard to beginning the training session itself, the opening 15 minutes or so must be seen as a particularly crucial time. It is during this phase that trainees' attention and enthusiasm must be won over if the rest of the training session is to prove effective.

▸ Remember, that at this early stage, trainees may be thinking along these lines:
▸ What am I doing here?
▸ When are we actually going to start learning something useful?
▸ I already know this.
▸ Will be able to keep up with the rest of the group?
▸ What is the trainer like?
▸ What will the trainer think of me?
▸ Does the trainer know what he/she is doing?
▸ Can this trainer really help me achieve my objectives?
▸ Is it safe to speak openly here about work problems/issues?
▸ What's happening in work right now?

These questions reflect factors such as: impatience; competence (self & trainer); compatibility; trust; and outside concerns. To help overcome these, and to create a positive learning culture, the trainer should start promptly, briefly outline own expertise and explain the background to the training event. It is critically important that the trainer adopts and maintains a confident and upbeat demeanour. It has been known for trainers to begin with a statement such as, "I'm really nervous up here so I'm sure you'll be patient with me", or "Now parts of this training can be a bit boring, but it's something that we have to go through as part of our compliance standards".

These types of statement should be avoided at all costs – most trainees take their lead from the trainer and therefore a positive and enthusiastic approach is vital.

The next important step is to set an appropriate learning environment by explaining how the training will be conducted and what it entails, while emphasising the importance of asking questions. Remind trainees of the experience that they bring to the event and encourage them to share and learn. Get buy-in to the objectives and content, check if they meet trainees' expectations, and assist trainees in identifying how the training relates to their work and the potential benefits in can provide for them. The trainer should also cover basic housekeeping points – start and finish times, break times, venue layout including washrooms and emergency exits, rules on the use of mobile phones, smoking, etc.

# ADAPTING RELEVANT ELEMENTS OF GAGNE'S MODEL

This model is based on the work of Robert M. Gagne (1916-2002), who spent many years researching the field of adult education and training. The model set out below was originally designed in 1962 and has been refined and tested over the years (Gagne, 1985). We do not advocate a slavish compliance with the model but do present it as a useful template for ensuring that

a positive culture is maintained throughout a training session. Obviously individual learner diversity, as well as differences in the content or subject matter, may dictate that a flexible approach is taken.

Gagne's model suggests that the following nine "instructional events" and corresponding cognitive processes need to take place during a training session to embed learning effectively. They can also be usefully applied in maintaining a positive learning culture during the training session.

1) **Getting the "hooks" into the learners.** Explain the relevance and importance to trainees of the learning process they are about to engage in. Capture the attention of trainees with an interesting fact, story, statistic, or thought-provoking question. Arousing curiosity and gaining early interaction sets an appropriate tone for the session. It conveys an immediate impression to trainees that the trainer is not about to embark on a "lecture".

2) **Informing learners of the objective.** At an early stage in a training session, trainees should be informed of the learning objectives. This initiates an internal process of expectancy and helps motivate trainees. It not only tells trainees what will be covered, but also states what they will know and/or be able to do at the end of the session. Where relevant, it is also beneficial to state that these objectives will form the basis for later assessment.

3) **Stimulating recall of prior learning.** This may take the shape of a quick refresh and recall session on earlier related material, or a linking of trainees' prior experience to the current learning situation. Associating new information with prior knowledge can facilitate the learning process and provide trainees with a framework that helps learning and remembering.

4) **Presenting the stimulus.** This means setting out the new material (e.g. "telling" them the stuff). This is where the new content is presented to the learner. It is best if this process is organised into "meaningful chunks" to avoid memory overload. Remembering the "VAK Learning Styles" model, it can be useful to employ a variety of media where possible (e.g. PowerPoint, flip chart, film, etc.).

5) **Providing learning guidance.** Explaining and expanding the material, answering questions and checking understanding. Additional guidance should be provided in tandem with the presentation of new content. Guidance strategies might include verbal examples; physical samples; graphical representations; mnemonics; and analogies.

6) **Eliciting performance.** At this point, trainees are allowed to practice and experiment with the newly acquired knowledge, skills and behaviours. This provides an opportunity for trainees to confirm correct understanding and the repetition involved increases the likelihood of retention.

7) **Providing feedback.** Giving feedback on trainees' performance; praising correct actions and re-directing incorrect actions. As learners practice new behaviours it is important to provide specific and immediate feedback of their performance.

8) **Assessing performance.** Measuring performance against a set of standards (e.g. the learning objectives set at the outset). It is important to test trainees, to verify that the relevant knowledge, skills and attitudes have been learned. This assessment should be completed without the ability to receive additional coaching, feedback, or hints. The formality, nature and extent of trainee assessment are specific to every organisation.

9) **Enhancing retention and transfer.** This refers to embedding the newly learned knowledge, skills and attitudes, by summarising and dealing with outstanding questions. The repetition of learned concepts is a tried-and-true means of aiding retention. It is also important to focus on how the knowledge, skills and attitudes acquired during the training session will be applied in the real world, and some form of action planning is a useful element to add in at this stage.

As the event progresses, trainers should also adopt the following principles:

▸ Embrace the unexpected – many training events will run almost exactly to plan but inevitably some will not. It may prove necessary to: eliminate specific exercises; adjust training style; expand aspects of training; move location; modify learning aids; etc. A flexible approach must be assumed when the unexpected becomes reality.

▸ Deliver the training message in a lively manner, maintain enthusiasm, and look for opportunities to inject occasional appropriate humour.

▸ Look for opportunities to link learning to practical situations – verbal examples and stories (without rambling on) make learning points more vivid for trainees. Encourage trainees to share practical examples from their experiences and to learn from each other.

▸ Show patience, understanding and respect when trainees: ask naïve questions; challenge statements or examples; have difficulty grasping concepts; or have difficulty mastering a particular skill.

▸ Check with trainees that sightlines are clear, that voice projection and clarity is effective and that the ongoing pace of training delivery is appropriate.

▸ Check trainees, understanding on an ongoing basis and encourage trainees to clarify any areas of uncertainty.

▸ Watch for signs of waning interest in a topic and be prepared to organise an unplanned activity or an exercise to regain their concentration.

▸ Seek verbal feedback from trainees at break-times about the progress of the event and be prepared to make beneficial adjustments to aspect of training delivery.

## EFFECTIVE LISTENING AND FEEDBACK

We have already learned about the importance of active listening and of providing guidance and feedback to trainees. In this section we will look at some additional pointers that we can draw from. These are pertinent in many training situations, especially where a trainee: raises a question; seeks clarification about an area of knowledge, skill or attitude; or seeks re-assurance about a specific aspect of the training with regard to their own performance. With any of these scenarios, trainers must show that they are effectively listening to what the trainee is saying and must also be able to provide appropriate feedback to the trainee.

### Things to avoid.

There are a number of things we (as trainers) should try to avoid when we are listening to what a trainee says, including:

▸ **Lining up our reply –** this occurs when we feel that we know what is coming next or that we have "heard it all before". Our whole attention is then focused on preparing our response. We may look interested, but our minds are not paying proper attention to what is being said.

▸ **Knocking speakers out of their stride –** this happens if we interrupt the speaker's flow and suddenly try to change the subject. It can also happen if we make inappropriate jocular comments about what the speaker is relating (or indeed about a different topic altogether).

▸ **Personality bias –** we sometimes allow our previous experience with, or opinion of, someone to affect the way we take in what that person is saying. Thus, if our thoughts are negative, we can prejudge somebody as incompetent or unpleasant and fail to pay attention.

- **Linking comments to your own experience –** this happens when we respond immediately by giving our own version of what the speaker has related (e.g. "You know I had a similar situation once and…" or "Let me tell you about…"). We cut off the speaker by launching into our story before they can finish theirs.

- **Always feeling that we are right –** this means that we will go to any lengths (make excuses or accusations, offer denials, raise our voices, etc.) to avoid accepting that we may be in the wrong. It is a symptom of our failure to accept criticism even if given in good faith.

- **Letting "emotional" words affect our attention –** we may associate certain words with an emotional context and thus fail to listen properly.

- **Having a closed mind –** by quickly responding with a comment such as "Yes, but…" or "That's OK in theory but what you don't really understand is…" indicating that you have already made up your mind.

- **Patronising the speaker –** we may respond to the speaker by exaggeratedly agreeing with their comments (e.g. "Oh, that's a brilliant observation…" or "That's a really superb question…"). This can originate in a deliberate attempt to patronise the speaker or it may be just an inadvertent reaction to make a "show" of being impressed.

## Things to do.

The following selection of points is put forward as useful in terms of things we should do (as trainers) when involved in listening situations with our trainees.

- **Adopt a positive attitude –** the first behaviour we should adopt is one of actually wanting to listen (and learn). As a starting point, it is basic to all others, for it means that we have an active intent to listen. This may not always prove an easy task – there may be a variety of reasons why we may not "feel" like listening to a trainee. At other times we may not even be aware that we do not feel like listening. Therefore, we should consciously adopt a positive listening attitude.

- **Display appropriate body language –** this must be in tune with our intent to listen. Maintain reasonable eye contact and avoid looking around the room. Face and lean slightly toward the speaker, engage a relaxed stance, and avoid "fiddling" (with pen, notes, books, etc.).

- **Read the signs –** look for the feelings or intent beyond the words. Pay attention to the trainee's body language and tone of voice. This can help us to gauge the true nature of the message (e.g. if the trainee is making a positive or negative point, or if the trainee is angry, unsure, inquisitive, seeking clarification, etc.).

- **Choose a response carefully –** when we feel that we have accurately understood the message, we should respond with our own message. In so doing, we should be empathetic, unemotional and non- judgmental. We should accept and respect the trainee's point of view (even if we do not agree with the thrust of the message). If we feel that there is any part of the message that we do not fully understand, we should seek clarification before offering our own viewpoint.

## Blended Learning

Blended learning is an educational approach that combines traditional face-to-face instruction with online learning activities and resources. It blends different modes of instruction, typically integrating in-person classroom sessions with digital components delivered through online platforms or software. This hybrid model allows for flexibility in learning, catering to diverse learning styles and preferences.

In a blended learning environment, students may engage in various activities both offline and online, such as attending lectures or discussions in a physical classroom, participating in online discussions or forums, completing interactive modules or quizzes, watching pre-recorded video lectures, and collaborating on group projects virtually. The combination of these methods aims to enhance the learning experience by leveraging the strengths of both traditional and digital learning approaches.

Blended learning can take on different forms and configurations depending on the specific needs and goals of the educational institution or instructor. Some common models of blended learning include:

1.  **Rotation Model:** Students rotate between different learning modalities, such as face-to-face instruction, online self-paced learning, and small group activities.
2.  **Flex Model:** Students have more control over their learning pace and path, with the majority of instruction delivered online and teachers providing support and guidance as needed.
3.  **Station Rotation Model:** Similar to the Rotation Model, but students rotate between various stations within the physical classroom, each offering different learning activities, including online components.
4.  **Flipped Classroom:** Instructional content is delivered online outside of class time, typically through pre-recorded videos or readings, while class time is used for active learning activities, discussions, and application of concepts.
5.  **Online Driver Model:** Most instruction occurs online, with face-to-face interactions limited to specific activities such as assessments, labs, or group projects.

Blended learning offers several benefits, including increased flexibility, personalized learning experiences, enhanced engagement, accessibility, and the ability to cater to diverse learner needs. It can be particularly effective in adult education settings, where learners often have busy schedules and varied learning preferences.

Blended learning, which combines traditional face-to-face instruction with online learning components, plays a significant role in adult education for several reasons:

1.  **Flexibility:** Adult learners often have busy schedules due to work, family, and other commitments. Blended learning offers flexibility by allowing them to access course materials and participate in activities online at their convenience, reducing the need for rigid schedules.
2.  **Personalisation:** Blended learning environments can cater to diverse learning styles and preferences. Adult learners can access a variety of resources such as videos, interactive modules, and discussion forums, enabling them to engage with content in ways that suit their individual needs.
3.  **Accessibility:** Online components of blended learning make education more accessible to adult learners who may have limitations such as physical disabilities, geographical constraints, or time constraints. They can participate in learning activities from anywhere with an internet connection, eliminating the need to commute to a physical location.
4.  **Enhanced engagement:** Blended learning incorporates multimedia and interactive elements that can enhance engagement and motivation among adult learners. Interactive simulations, virtual labs, and multimedia presentations can make learning more immersive and enjoyable.
5.  **Real-world application:** Blended learning can integrate real-world scenarios and case studies, allowing adult learners to apply their knowledge and skills to practical situations relevant to their personal or professional lives. This application-oriented approach fosters deeper understanding and retention of the material.

6. **Self-paced learning:** Online components of blended learning often allow for self-paced learning, where adult learners can progress through the material at their own speed. This flexibility accommodates varying levels of prior knowledge and allows learners to spend more time on challenging concepts as needed.

7. **Cost-effectiveness:** Blended learning can be cost-effective for adult education providers since it reduces the need for physical infrastructure and resources associated with traditional classroom-based instruction. Additionally, it can lower costs for adult learners by eliminating commuting expenses and providing access to affordable online resources.

Overall, blended learning in adult education offers a flexible, personalized, and accessible approach to learning that meets the diverse needs of adult learners in today's digital age.

# TRAINING STRATEGIES

Training strategies in this instance refers to "learning" or "instructional" approaches to be followed by the trainer to ensure that the learning process is effective and that objectives are being met.

## In general

‣ Providing frequent opportunities for learners to self-assess and self-correct.

‣ Providing verbal examples that relate to trainees' experiences and mind-set.

‣ Using physical samples; helping trainees to visualise what is being referred to in words.

‣ Using open questions to promote interaction.

‣ Using rhetorical questions to allow trainees to reflect and/or theorise on the implications of various situations.

‣ Realising that lower levels of behaviour (knowledge) may be taught using more passive learning methods.

‣ Realising that higher levels of behaviour require some sort of action or involvement by (skills/attitudes) the learners.

## Learner experience and readiness

‣ Inexperienced learners may prefer an approach where a logical sequence and flow is followed and the pace of learning is steady and progressive.

‣ Experienced learners may prefer an approach where they can engage in a process of trial-and-error or discovery. The pace may be varied in accordance with the readiness of trainees.

## Presenting information

The focus of an entire training session may be on presenting information in order to increase trainees' knowledge (e.g. induction training/socialisation training in general). On other occasions, information will be presented about particular aspects of a job/task at the beginning of a training session (as a prelude to a job demonstration).

In either case, this information may be concerned with practices and procedures, health and safety matters, operational methods, etc. It can be compared to giving a short presentation. However, as this is a training situation, particular attention should be given to the following:

‣ Encouraging the active participation of trainees (throw out questions, link to trainees' knowledge/experiences, build in short exercises, etc.).

‣ Testing trainees' understanding of the information being given.

‣ Delivering chunks of content and summarising these on a regular basis.

‣ Highlighting key learning points.

‣ Providing opportunities for trainees to ask questions.

## Job Demonstration / Job Instruction

Job demonstration/instruction is concerned with showing the trainee(s) how a particular job or task is undertaken. This represents a significant advance, as it involves telling and showing. It must therefore embrace opportunities for trainees to practice and to receive feedback on progress. Important points to remember in this process include:

▸ Ensuring that an appropriate location is used and that required resources are available (with special regard to health and safety issues).

▸ If necessary, breaking the job/task into suitable learning "chunks".

▸ Where relevant, following a particular sequence of activities (some tasks may have to be performed before others).

Common steps followed in a job demonstration/job instruction are:

▸ Tell – giving an overview of what the task entails.

▸ Show – performing the task for the trainee to see. This may be broken into three sub-steps as follows:

▸ Demonstrating (at normal speed) how the task should be undertaken.

▸ Giving a slower demonstration, while providing full commentary, highlighting key learning points and encouraging trainees to clarify issues that may arise.

▸ Allowing the trainee to call out instructions while the trainer performs the task accordingly (it is critical to correct the trainee if incorrect instructions are given).

▸ Practice – allowing trainee to practice performing the task. Again, it is critical to correct the trainee if the right method is not being followed for any element of the task performance.

▸ Feedback – reinforcing correct practice and highlighting incorrect practice as appropriate.

Bear in mind the importance of positive and corrective feedback as previously discussed.

## USING LEARNING AIDS EFFECTIVELY

It is important that a trainer knows how to get the most from the learning aids employed during a training session. We will now review the most common learning aids currently in use and put forward some tips about how these can be used most effectively.

### LCD Projector / MS PowerPoint

▸ Remember that to use a PowerPoint application, a P.C. (desk-top/lap-top/IPad/mobile device) and a suitable projector must be linked up. Give yourself plenty of time to iron out potential technical difficulties before training is due to begin.

▸ Keep trainees' "sight lines" clear. Be constantly aware of positioning and movement. All trainees should have a clear view of the full projected image at all times (we have already advised checking this with trainees).

▸ Pressing "B" on standard keyboard blanks out the screen (when full PowerPoint slides are displayed – may vary with the use of some operating systems). Similarly, pressing "W" on keyboard projects blank white screen. Pressing any key will return previous display to slide. This facility also exists on some remote-control devices.

▸ It's a good idea to blank out the screen display, when:
  • a trainee asks a question.
  • an open question is used by the trainer to provoke discussion.
  • the trainer is working at a flip chart.
  • the trainer is demonstrating a skill, task or procedure for trainees; and/or
  • the trainer is showing physical samples.

▸ Blanking the screen encourages trainees to focus on the question, discussion, etc. It also avoids having a screen display projected for long periods of time without any interruption.

▸ Do not point to screen, instead use PowerPoint to point (use arrows, circles, etc.). Many trainers

favour the use of infra-red/laser pointers but we suggest that these should be used only as a last resort as their use dictates turning away from, and losing eye contact with, trainees.

▸ Remember to use PowerPoint in an interactive manner. Talking through slide after slide with no trainee interaction or involvement is NOT how training should be delivered. To initiate discussion, consider introducing a "header" slide and seek opinions or frame questions about potential issues around the "header" topic.

▸ If using a prepared flip chart, ensure that all pages are present and in the correct order, and cover first page until ready to start.

▸ Specific flip chart pages can easily be tabbed with masking tape. Remember the tip outlined previously about the use of a light pencil to prepare content "prompts" in advance.

▸ Turn over chart to blank page when finished using – otherwise trainees' attention may be distracted by this when the focus of learning has moved to subsequent learning points.

## Flip Chart

▸ Bring the flip chart stand as close as is feasible to trainee group and check that everyone has a clear view.

▸ Write BIG & BOLD text and make use of different colour markers (red, black, blue and green) to brighten text or highlight specific points. Different colours can also be used to: distinguish between contributions from different feedback groups; highlight different topic elements (types of customer responses, classes of plants, etc.).

▸ It takes a lot of practice to write legibly across "page" while standing at the side of a chart. Meanwhile, try to avoid talking towards the chart, and remember to move quickly to the side when finished writing.

▸ It is sometimes useful to remove pages with specific content and hang these around a wall. However, be aware that this may prove a distraction when moving on to another topic.

▸ When recording suggestions from trainees, long statements may be shortened into meaningful phrases that summarise the thrust of response. Check with contributor that this is the case.

▸ Unless a "brainstorming" technique is being used (in which case all contributions should be recorded), clarify and discuss contributions that seem contrary to intended learning, rather than (or before) recording them.

## Video/Film

▸ A reminder that timing is important when showing a video/film (as previously outlined).

▸ Remember to: explain the learning context of a film before playing; give trainees a related task (e.g. identify examples of good/poor customer service); inform them that you will be asking for feedback on specific learning points afterwards. This reduces the possibility of trainees "opting out" when a film is being shown.

▸ Following video/film viewing always discuss and summarise the main learning points before moving on.

## Interactive Whiteboard / SMART board

For a beginner's guide to using an interactive white board, see:

1.  www.youtu.be/
    jIHg3F3C56I?si=TdWTkAPfT44smKOs

    For a series of video tutorials demonstrating how to use an Interactive whiteboard, see:
    www.cambridge.org

For 27 SMART board tips and tricks (part 1), see:

2.  www.youtu.be/AAt7YI--
    wQ8?si=x8_4LGmanwDO_HoY

Note: Many useful tutorials on interactive white boards (and on every existing learning/training technology) may be found at:
www.youtube.com

## Digital Recording & Playback

▶ Always check equipment (video settings, etc.) before beginning the recording process. It is also advisable to check that sessions are being recorded appropriately on an ongoing basis – having to inform a trainee of a problem with their recording, and asking them to repeat the process, is an unenviable fate for any trainer!

▶ Remember that taking part in a video recording can be stressful for some trainees. A trainee should never be forced into taking part.

▶ Having said this, for certain types of training event (e.g., training trainers, presentation skills, etc.) it should be explained to trainees that use of video recording and playback offers a significant learning opportunity.

▶ Build in ample time for playback and feedback. Remember that the purpose of this method is to facilitate improvement and therefore it is important to ensure that learning points are identified, highlighted and discussed.

▶ The following sequence is recommended for playback review and discussion:

• Self-review – the trainee being reviewed is given the first opportunity to offer comments about learning points arising. It is recommended that the trainee is encouraged to identify positive aspects of their "performance" initially, before identifying improvement areas.

• Peer-reviews – fellow trainees are encouraged to provide positive feedback and suggested areas for improvement. Overly critical, personal, or spiteful feedback (although this is deemed unusual, the unfortunate possibility always exists) should be carefully monitored, controlled and halted by the trainer.

• Trainer-review – the trainer should provide positive feedback, highlight action points for improvement (in line with feedback and guidance approach outlined previously), and offer further encouragement before moving on to the next review.

## Blended Learning Aids & Digital Tools

Blended learning tools depend on a combination of traditional face-to-face instruction and digital tools to create a cohesive learning experience. Here are some digital tools commonly used in blended learning environments:

1. **Learning Management Systems (LMS):** Platforms like Moodle, Canvas, Blackboard, and Google Classroom serve as central hubs for organizing course materials, facilitating communication between instructors and students, delivering online assessments, and tracking student progress.

2. **Video Conferencing Tools:** Tools such as Zoom, Microsoft Teams, and Google Meet enable live virtual sessions, allowing instructors to conduct lectures, facilitate discussions, and host virtual office hours. These tools also support screen sharing, breakout rooms, and chat features for enhanced interaction.

3. **Interactive Content Creation Tools:** Tools like Articulate Storyline, Adobe Captivate, and H5P allow instructors to create interactive multimedia content such as simulations, quizzes, interactive presentations, and branching scenarios to engage learners and reinforce learning objectives.

4. **Online Collaboration Platforms:** Platforms like Microsoft Office 365, Google Workspace (formerly G Suite), and Slack facilitate collaboration and communication among students and instructors through features like document sharing, real-time editing, discussion boards, and messaging.

5. **Content Repositories and Open Educational Resources (OER):** Repositories like Khan Academy, OpenStax, and MERLOT offer a wealth of free or low-cost educational resources, including textbooks, videos, articles, and simulations that instructors can integrate into their blended learning courses.

6. **Learning Analytics Tools:** Tools like Brightspace Insights, Moodle Learning Analytics, and Canvas Analytics provide instructors with data-driven insights into student engagement, performance, and learning behaviours, allowing them to identify areas for improvement and tailor instruction accordingly.

7. **Mobile Learning Apps:** Mobile apps like Duolingo, Quizlet, and Khan Academy offer on-the-go access to educational content, enabling learners to engage with course materials and activities anytime, anywhere, and on any device.

8. **Virtual Reality (VR) and Augmented Reality (AR) Tools:** Immersive technologies like Google Expeditions, Oculus Rift, and Microsoft HoloLens can enhance learning experiences by providing realistic simulations, virtual tours, and interactive 3D models that bring complex concepts to life.

9. **Gamification Platforms:** Platforms like Kahoot! Quizizz, and Classcraft incorporate game elements such as quizzes, badges, leaderboards, and rewards to make learning more engaging and motivating for students.

   By leveraging these digital tools, instructors can create dynamic and interactive blended learning experiences that combine the best aspects of traditional instruction with the flexibility and accessibility of online learning.

## SUMMARY

In this chapter we discuss the significance of an effective beginning to a training event and list principles for setting and maintaining a positive learning environment. We also examine approaches to presentation and demonstration, before offering useful tips for effective use of learning aids.

# Assessing Learning

## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Identify the purposes of assessment.

▸ Explain different types of assessment.

▸ Discuss a range of assessment methods and techniques.

▸ Devise an appropriate assessment strategy to test trainees' learning and to determine if training needs were met and objectives fulfilled.

▸ Explain the objective and subjective nature of various assessment techniques.

▸ Discuss issues surrounding assessment reliability, validity and fairness.

# INTRODUCTION

An important feature of any training intervention is the assessment of trainees' learning. However, our experiences lead us to the conclusion that in some organisations assessment of trainees' learning is either ignored or else treated as a mere box-ticking exercise. We have even encountered a situation where trainees are tested with a set of questions at the conclusion of training, and those having difficulty are provided with a set of model answers by the trainer, in line with organisational policy!

It can be reasonably suggested that a similar level of gravity should not always apply to the type, nature and extent of learning assessment implemented, within a specific organisation or across organisations. Nonetheless, it seems facile to organise a training activity, set expected learning outcomes, and subsequently fail to appropriately test if these have been achieved. One might reasonably ask "what then was the point of the training?"

Another aspect of assessment that must be highlighted in the introductory phase is the tendency among some commentators and practitioners to use the terms "assessment" and "evaluation" interchangeably when referring to testing if learning outcomes have been achieved. This may not be problematic in some circumstances, but it can (and in our experience has) caused confusion in some quarters (e.g. in particular for those learning about the T & D process who do not have previous experience in this field). For our purposes, therefore, we will use "assessment" in terms of the assessment of learning, and "evaluation" will relate to evaluation of training.

# PURPOSES OF ASSESSMENT

The purposes of assessment include:
- Testing if objectives/desired learning outcomes have been achieved.
- Identifying the level of learning acquired by individual trainees.
- Providing feedback to trainees.
- Providing information about the design and effectiveness of training activities.
- Indicating adjustments to programme design and/or delivery.

# TYPES OF ASSESSMENT

Different types of assessment have been established – Diagnostic, Formative and Summative.

## Diagnostic Assessment

The aim of diagnostic assessment is to establish an individual's level of relevant knowledge, skills, attitudes, abilities and experience prior to a learning event. The utility of this type of assessment may best be described as situational.

It is considered useful for making decisions about whether an individual is suited to undertaking particular types of learning programme (e.g. specific apprenticeships/third level education programmes) or if an individual may become suited following some preparatory work undertaken beforehand. It may also be used to measure a starting point against which a trainee's future progress may be assessed.

## Formative Assessment

The goal of formative assessment is to measure trainees' progress in order to make beneficial changes to training and learning. It is seen as an ongoing process during a training situation and should be combined with formative feedback if it is to prove most effective. Formative assessment can highlight aspects of trainees' performance that require adjustment to ensure that they achieve targeted standards-based learning goals within a set timeframe. It can also identify areas where beneficial changes might be made to the design and/or delivery of training.

Some important points regarding the provision of formative feedback by a trainer are:

▸ **Being positive –** stating what is being done well, in conjunction with stating what could be improved. One of the benefits of this is to motivate trainees to build on their strengths, and to retain them while attempting to address improvement areas.

▸ **Being diagnostic and specific –** to help trainees to identify what and how they can improve, feedback needs to be diagnostic. That is, it needs to point as specifically as possible to the part or aspect of performance to be improved. It can be suggested that there are two parts to being diagnostic (both helpful) – indicating which aspect of performance needs attention and indicating exactly why.

▸ **Giving advice –** providing trainees with the necessary advice and guidance to enable them to make improvement adjustments. This is moving the situation from the trainee understanding what needs to be changed to understanding how it could be changed (for the better).

▸ **Self-assessment –** an important part of formative assessment and feedback is encouraging trainees to reflect on where they stand currently in terms of competence and assessing their own performance against the objectives that have been set.

## Summative Assessment

Summative assessment refers to the "testing" of trainees' learning against set objectives. This is commonly carried out at the end of a training intervention and may be focused on a specific task or range of tasks. It provides useful information about trainees' learning from a training activity, but it can also highlight the effectiveness or otherwise of the training activity itself.

## ASSESSMENT METHODS

A wide range of assessment methods may be drawn from in devising an appropriate assessment strategy and process. Let us now outline some of these under a range of headings.

### Common assessment techniques

(a) **Verbal questioning** – as suggested, this means asking trainees questions (usually at the end of a training session) to test if the objectives have been achieved. This type of assessment usually requires the trainee to recall by listing or stating elements of knowledge.

In a group situation, when questions are being directed to specific people, remember the following:

▸ Ask clear, specific questions.
▸ Try to ask every trainee a question.
▸ Take care about putting shy/withdrawn trainees into a spotlight too soon.
▸ Do not embarrass any trainee (if answer not forthcoming, move on to another trainee or rephrase the question).
▸ Involve all trainees during clarification (if answer is correct/if further explanation is necessary).

(b) **Written test** – getting the trainees to complete a written test (usually at the end of a training session). These can vary greatly and may include: a set of straightforward questions; multiple-choice questions; or "true or false"/"yes or no" questions.

If written tests are being used, remember the following:

▸ Use clear, specific questions.
▸ Avoid questions that suggest long, open-ended answers.
▸ Ensure that the answer to one question is not contained in another. Unless carefully designed, multiple-choice and "true or false"/ "yes or no" type questions might be answered correctly by guesswork.

(b) **Skills-based** – a demonstration of competence, where a trainee carries out a task under observation by the trainer. If testing trainees' competence (by demonstration), remember the following:

‣ Try to involve all trainees.

‣ Do not embarrass any trainee (if unable to complete task – offer assistance & re-assurance, encourage, guide).

‣ It may be necessary to demonstrate for trainee(s) again in a step-by-step approach.

(c) **Attitudinal change** – this is generally considered the most difficult aspect of learning to assess. Techniques that may be used in this situation include questionnaires; role play; and/or direct questioning. An acknowledged issue with these techniques is that a trainee can display evidence of attitudinal change but may not have fundamentally changed their ideas or opinions.



## Assessment techniques – expanded learning outcomes

Nightingale et al (1996) provide eight broad categories of learning outcomes against which learning might be assessed. These are listed at: www.brookes.ac.uk and suitable assessment methods are also suggested, including:

‣ Thinking critically and making judgements: essay; report; journal; presenting a case to a group; book review.

‣ Solving problems and developing plans: group work; problem-scenario; work-based problem; analysis of a case; conference paper.

‣ Performing procedures and demonstrating techniques: demonstration; role play; make a video; produce an illustrated manual; lab report.

‣ Managing and developing oneself: journal; portfolio; learning contract; group work.

‣ Accessing and managing information: annotated bibliography; project; dissertation; applied task; applied problem.

‣ Demonstrating knowledge and understanding written examination; oral examination; essay; report; short answer questions.

‣ Designing, creating, performing portfolio; performance; presentation; projects.

‣ Communicating: written presentation (essay, report, reflective paper); oral presentation; group work; discussion/debate/ role play.

It is further suggested here that when choosing assessment methods, it is important to offer variety to learners in the way they demonstrate learning.

## QQI – Assessment Techniques

Learners pursuing certification through Quality and Qualifications Ireland (QQI) are assessed using one or more assessment techniques. We will now outline these and include some of the further detail available around each technique (www.qqi.ie).

▸ **Examination –** assessing learner's ability to recall and apply knowledge, skills and understanding within a set period of time and under clearly specified conditions. Examinations may be practical; interview style; aural; or theory based.

▸ **Portfolio –** a collection and/or selection of pieces of work produced by the learner to cover the achievement of a range of learning outcomes.

▸ **Assignment –** an exercise carried out in response to a brief with specific guidelines as to what should be included. An assignment is usually of short duration and/or may be carried out over a specified period of time.

▸ **Project –** a response to a brief devised by the assessor. A project is usually carried out over a period of time specified as part of the brief. Projects may involve research, require investigation of a topic, issue or problem, or may involve a process such as a design task, a performance or practical activity or production of an artefact or an event.

▸ **Skills Demonstration –** used to assess a wide range of practical-based learning outcomes, including practical skills and knowledge. A skills demonstration will require the learner to complete a task or series of tasks that demonstrate a range of skills.

▸ **Learner Record –** the learner's self-reported and self-reflective record in which he/she describes specific learning experiences, activities, responses and skills acquired.

## Assessing group work

Many factors need careful consideration when assessing learning outcomes at group level. These are discussed in excellent detail at https://melbourne-cshe.unimelb.edu.au and the main themes are summarised hereunder.

**(a) Good reasons for group learning**
▸ Peer learning can improve the overall quality of individual learning.
▸ It can help to develop specific generic skills sought by employers.

▸ It may reduce the workload in assessing, grading and providing feedback to learners.

**(b) Common issues and concerns**
▸ Trainees may find it difficult to perceive the relevance of group assessment and/or feel that objectives are unclear.
▸ It may feature inequitable contributions from some group members.
▸ It may become an over-used method of assessment.

**(c) Providing explicit guidelines**
▸ Determining group membership.
▸ Establishing roles and responsibilities of group members.
▸ Scheduling group meetings.
▸ Defining group processes.

**(d) Group assessment process – options.**
▸ Product, process or both?
▸ What criteria and who says so?
▸ Who will assess – tutor, learner or both?
▸ Who gets the marks – individuals or the group?

As previously mentioned, all these areas and more are examined and discussed in detail at the website. In particular, it has an excellent outline of the range of assessment options when groups are involved, including advantages and disadvantages of various approaches.

## On-line assessment

On-line assessment methods are commonly utilised in conjunction with e-learning processes. However, on- line assessment may also be used to test trainees' learning during or at the end of many other training interventions.

A number of advantages may be suggested for on-line assessment:
▸ Flexibility – trainees undertake test in a time and place of their choosing.

▸ Following submission, results and feedback can be provided in an on-line facility.

▸ If an "automatic" test is used, results and tailored feedback can be returned in a short space of time.

▸ With "automatic" tests, there are time savings and reduction in administration for tutors.

▸ Statistical analysis of multiple results is more convenient.

▸ Speedy statistical analysis provides timely data that facilitates quick identification and implementation of areas for improvement.

▸ Soft record copy of training is made available for compliance and audit purposes.

## Suggested disadvantages include:

▸ Process may be open to cheating (depends on functionality of product being used).

▸ Initial development of online assessments can be time consuming and may require additional resources (e.g., product licences, translations, etc.).

▸ Potential technical difficulties.

An excellent series of articles discussing many aspects of on-line assessment of learning can be found at  www.facultyfocus.com/

## Assessment tools

A wide range of assessment tools may be used to assess trainees' learning. These are commonly based on performance/behavioural competencies and include:

▸ **Check-listing –** where specific performance actions are ticked off from a list during observation.

▸ **Rating scales –** where the extent to which certain behaviours displayed by the trainee are "scored" by an observer.

▸ **Rubrics –** focus on measuring a stated objective, using a range to rate performance, and containing specific performance characteristics in levels to indicate the degree to which a standard has been met.

## FURTHER ASSESSMENT FACTORS

Several further factors must be considered when developing an assessment strategy and we will examine these under a range of headings.

(a)  **Objective and Subjective Assessment**
The categories' objective and subjective may be applied to assessment tests.

▸ **Objective tests** – those that have right or wrong answers and so can be marked objectively. The advantages of objective tests include the fact that they are: relatively easy to prepare; straightforward to undertake; reliable; effective even in large groups; and easy and quick to mark. They also provide quantifiable and concrete results. There are various types of objective test, including: recall (sentence completion/filling in blanks); recognition (multiple-choice, true/false, matching items); and problem- solving (re-arrangement, analogy).

▸ **Subjective tests** – adopt a more open format with possible responses of varying quality. Their advantages include the following: flexibility of interpretation; a graded score/mark may be awarded; weighting can be applied to specific aspects of responses. In addition, elements of problem-solving, analysis, and decision-making can be more explicitly built in the assessment process. Subjective assessments also lend themselves to encouraging improvement in writing skills, structure, and presentation. Subjective assessment types include essay; performance; checklists; portfolios and end products.

**(b) Reliability**

Assessment reliability refers to the extent to which it consistently and accurately measures learning. Equivalent results should pertain irrespective of when the assessment is undertaken or who is responsible for marking it. A number of factors may affect reliability, including (assessment.tki.org.nz): length of assessment; suitability of questions or tasks used for assessment; phrasing and terminology of questions; consistency of administration; readiness of learners for undertaking assessment.

**(c) Validity**

Assessments are considered valid if they measure what it is intended, they measure. There are several different types of validity, including (assessment.tki.org.nz): face validity (do the assessment items appear appropriate?); content validity (does assessment content cover what you want to assess?); construct validity (are you actually measuring what it is intended you should be measuring?). It has been suggested that no assessment process can be deemed wholly valid.

**(d) Fairness**

Fairness ensures that everyone undertaking the assessment has an equal chance of getting a good assessment, regardless of factors such as gender, background, culture, etc. Fairness also has implications for the marking of assessments. Preconceptions, overt bias or subliminal bias may affect how an individual might apply marks, especially with regard to subjective tests.

## Universal Design for Learning- Assessment Strategies

Universal Design for Learning (UDL) is an educational framework aimed at providing all students, regardless of their diverse learning needs, with equal opportunities to learn effectively. While UDL is often associated with instructional design and curriculum development, its principles can also be applied to assessment practices to ensure that assessments are accessible, equitable, and inclusive for all learners. Here's how UDL can be integrated into assessment:

1. **Multiple Means of Representation:**
▸ Provide assessments in multiple formats to accommodate different learning preferences and needs. For example, offer text-based questions, audio recordings, or visual prompts.
▸ Use multimedia resources and diverse materials to present assessment tasks and questions, ensuring that they are accessible to learners with various learning styles and abilities.
▸ Provide scaffolding and support materials, such as graphic organizers, vocabulary aids, or examples, to help students understand assessment tasks and concepts.

2. **Multiple Means of Expression:**
▸ Offer diverse options for students to demonstrate their understanding and skills. Allow for flexibility in response formats, such as written responses, oral presentations, multimedia projects, or demonstrations.
▸ Provide clear instructions and guidelines for assessment tasks, along with opportunities for students to clarify expectations and ask questions.
▸ Offer choice and autonomy in assessment tasks, allowing students to select topics, formats, or methods that align with their strengths and interests.

**3.    Multiple Means of Engagement:**

▶ Design assessments that are relevant, meaningful, and engaging for all students. Incorporate authentic tasks and real-world contexts that connect to students' interests and experiences.

▶ Provide opportunities for collaboration and peer feedback during assessment activities, fostering a sense of community and support among learners.

▶ Offer flexible scheduling and timing for assessments, allowing students to work at their own pace and accommodating individual learning needs and preferences.

Additionally, when designing assessments with UDL principles in mind, it's essential to consider the following:

- Accessibility: Ensure that assessments are accessible to students with diverse abilities, including those with disabilities or special needs. Provide accommodations or modifications as necessary to support equal participation and success.

- Fairness: Design assessments that are fair and unbiased, avoiding language, cultural, or socioeconomic barriers that may disadvantage certain groups of students.

- Continuous Improvement: Collect feedback from students and reflect on assessment practices to identify areas for improvement and refinement. Continuously adapt and adjust assessments based on student needs and feedback.

By incorporating UDL principles into assessment design, educators can create more inclusive, equitable, and effective assessment practices that support the diverse needs and strengths of all learners.

## SUMMARY

In this chapter, we examine and discuss a range of issues around the assessment of trainees' learning. In particular, we outline the purposes of assessment and review assessment types and methods. Finally, we set out a range of further factors that must be taken into consideration when developing an assessment strategy.
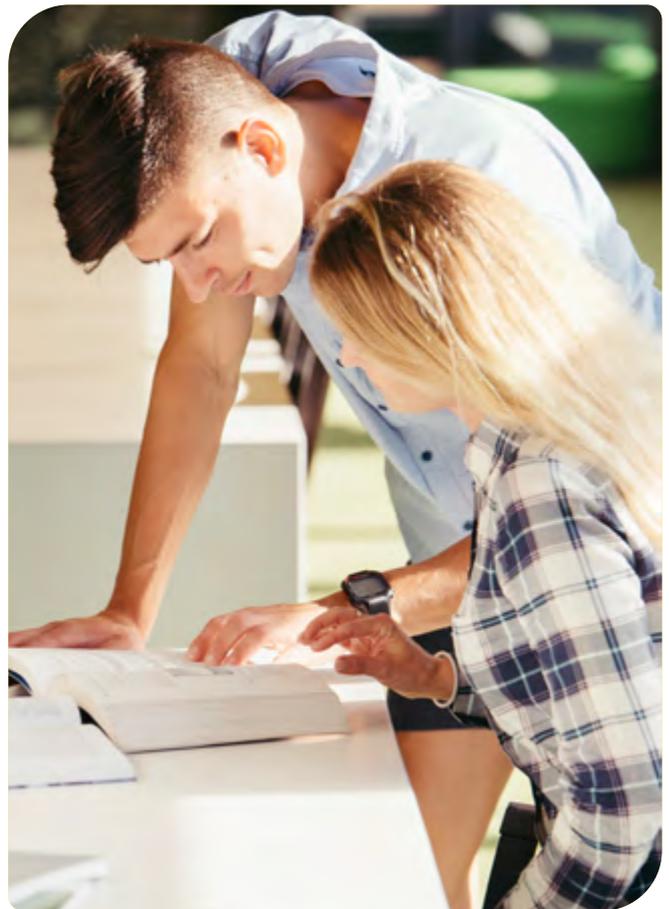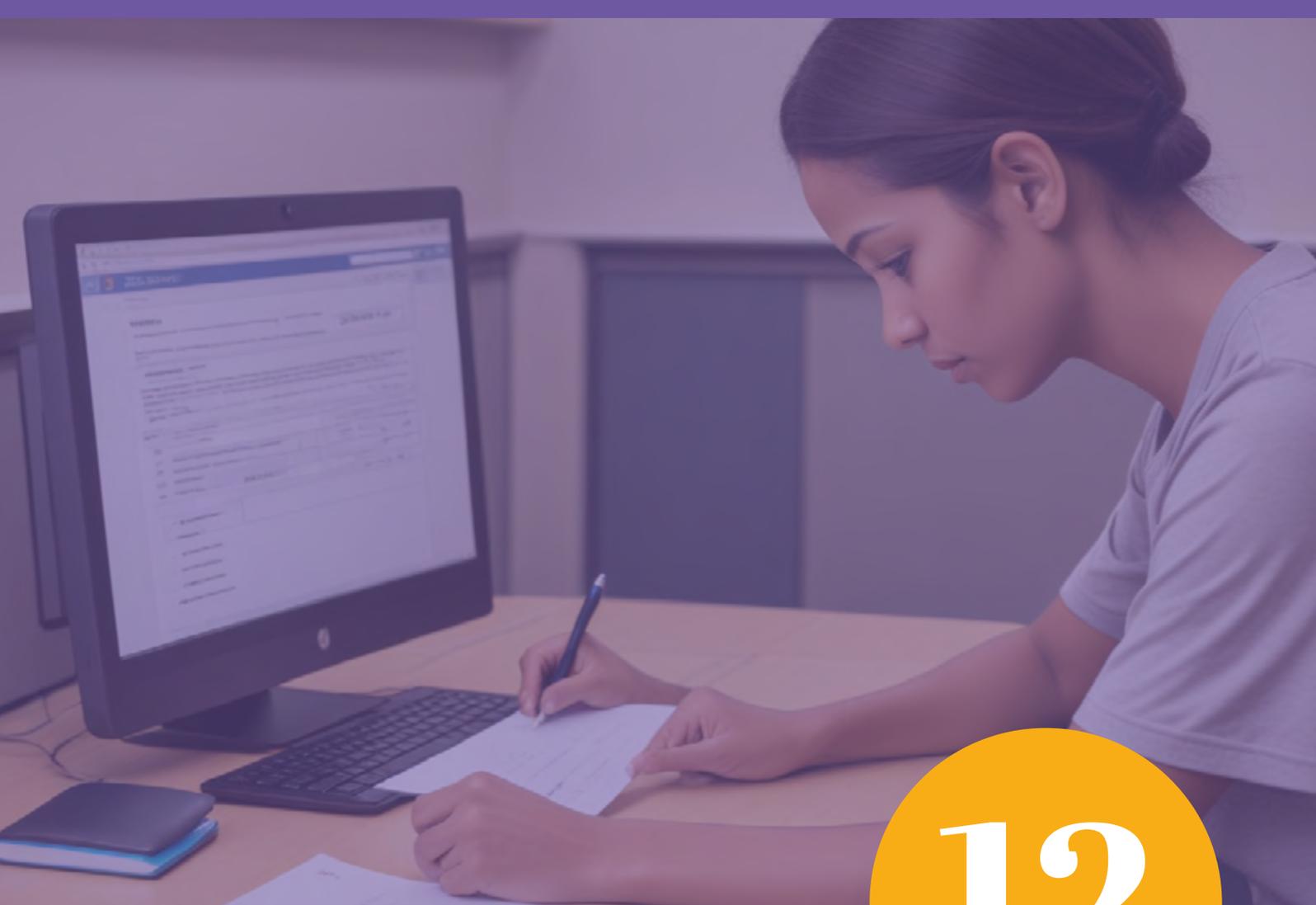
# Training Evaluation



## LEARNING OUTCOMES

On completion of this chapter, you should be able to:

▸ Discuss reasons why training evaluation should be undertaken.

▸ Identify, explain and assess a range of training evaluation models, techniques and approaches.

▸ Develop appropriate evaluation questionnaires.

▸ Devise an evaluation process that incorporates key stakeholders, feedback from trainees, challenges within the process and the methodology followed.

▸ Develop an evaluation report for a training event that highlights areas of success and outlines areas for improvement.

## INTRODUCTION

One of the most important features of the T & D process in organisations is the evaluation of its effectiveness. When an organisation invests time and resources in the T & D process, it is reasonable to expect that the consequent benefits would be subject to measurement. However, in practice, this stage is often neglected and it is seldom given the attention it should command. Some of the factors behind this may include:

▸ The delivery of training is sometimes viewed as the end product. Training needs were identified, training was planned and organised, and now, with its delivery, training is seen as completed.

▸ Thorough evaluation usually requires the collection and analysis of data and this is often viewed as unglamorous and time-consuming work.

▸ Those responsible for organising and/or delivering a training event may have reasons to suppress information about its effectiveness.

▸ The organisation may not have a training specialist (or anyone else) with the requisite expertise.

In this chapter we will outline definitions of training evaluation and examine its purpose, before presenting some evaluation models.

## DEFINITIONS OF EVALUATION

According to Hamblin (1974), evaluation is "any attempt to obtain information (feedback) on the effects of a training programme and to assess the value of the training in the light of that information". Goldstein (1986) defines evaluation as "the systematic collection of descriptive and judgemental information necessary to make effective decisions related to the selection, adoption, value and modification of various instrumental activities". A lengthy definition is provided by Buckley and Caple (1990), who see training evaluation as "...the process of attempting to assess the total value of training – that is, the cost benefits and general outcomes which benefit the organisation as well as the value of the improved performance of those who have undertaken training".

The implications of such definitions are commented on by Van Dyk et al (1997) and Garavan et al (1995), in that evaluation:

▸ Is an ongoing process – it is not done at the end of a training event only.

▸ Is directed towards specific goals and objectives.

▸ Is about the use of data gathering techniques designed to examine particular aspects of the learning process.

▸ Requires the use of accurate and appropriate measuring instruments to collect information for decision making.

▸ Is not only concerned with the evaluation of trainees, but with the wider training system as a whole.

▸ Should not be confused with validation, which is considered too narrow in scope – it does not reflect trainees' feedback or take account of unanticipated effects of a training event.

Note: Internal validation is a process aimed at finding out if a training event has achieved its behavioural objectives. External validation is a process aimed at checking if the behavioural objectives of an internally valid training event were based on accurate identification of training needs.

## WHY EVALUATE?

There are a number of reasons why organisations should undertake the evaluation of T & D in a rigorous manner, including (Garavan et al, 1995; Garavan et al, 2003):

▸ Measuring if the outcomes of a training event are in line with set objectives.

▸ Finding trainees' levels of satisfaction with a range of elements related to the training event.

▸ Determining the effectiveness of a specific training event and ways that it might be improved.

▸ Determining if the training event was the best way to address a performance gap or development opportunity.

▸ Deciding whether or not to continue running a specific training event.

- Measuring the transfer of learning to the work situation.
- Adopting a continuous improvement focus.
- Calculating the tangible and intangible benefits and justifying investment in the T & D process.
- Informing future training plans and strategy.

Three general purposes of training evaluation are proposed by Easterby-Smith (1986), as follows:

- **Formative Evaluation (Improving) –** concerned with identifying beneficial refinements to the training event while it is still in progress. This may refer to a single training event being run over a period of time or to one that is planned to run on a number of occasions.
- **Summative Evaluation (Proving) –** focused on measuring if the training event has achieved its stated objectives. It is seen as a judgmental activity, seeking to prove or disprove the effectiveness of the training.
- **Learning –** concentrated on measuring the extent of learning acquired by trainees in terms of changes to knowledge, skills and/or attitudes.



## MODELS OF TRAINING EVALUATION

Many models and types of evaluation have been developed over a long period of time and we will now summarise some of the most widely referenced:

**Four Levels of Evaluation Model (Kirkpatrick, 1967)**
This model proposes that training should be evaluated at four levels:

- **Reaction level –** getting feedback from trainees about various aspects of the training event.
- **Learning level –** assessing the acquisition of learning by trainees, in terms of knowledge, skills and attitudes.
- **Behaviour –** measuring the changes in trainees' behaviour on their return to the work situation.
- **Results –** measuring how the training event contributed to results in an organisational context.

This is certainly one of the most popular and widely used and it forms the basis for many other evaluation models and we will return to it again in more detail later in this chapter.

**CIRO Model (Warr et al, 1970)**
The CIRO model looks at four aspects of the training event, as follows:

- **Context –** this relates to the rationale for the training and seeks to review how the training opportunity was specified and how the training needs were identified and analysed.
- **Inputs –** the focus here is on the planning and design of the training event and on determining if the inputs (trainees, content, structure, training methods, etc.) were appropriate to the training event.
- **Reactions –** this is concerned with measuring how trainees reacted to the training in terms of its quality, delivery and usefulness.
- **Outcomes –** this relates to trainees learning – assessing the acquisition of learning and measuring the extent to which it has been transferred to the work situation.

**Five Levels of Evaluation Model (Hamblin, 1974)**

The first three levels of this model are the same as in the Kirkpatrick model, but two further levels are added as:

▸ **Functioning –** measuring the benefits from the training event that accrue to the department/ function involved, through cost benefit analysis.

▸ **Ultimate value –** measuring the tangible and intangible benefits of a training event (or a series of training events) at an organisational level (what overall impact has the training event had on the organisation's well-being.

**Return on Investment (ROI) Model (Phillips, 1997)**

This model is closely linked to the Kirkpatrick and Hamblin models but its fifth level relates to ROI. The focus at this level is to measure the cost benefit of training and the following formula is proposed in this vein:

ROI (%) = Net Programme Benefits (monetary) Programme Costs x 100

ROI is a financial measure classically defined as "earnings, divided by investment, times 100" and expressed as a percentage. Essentially, this shows the monetary return from investing in a particular project or programme. Although this model can appropriately calculate ROI, the effort and resources required to collect the necessary data raises questions about its universal applicability (e.g. this level of evaluation may be more justifiable in cases of more sizeable investment in T & D).

**CIPP Evaluation Model (Stufflebeam, 2007)**

The original CIPP model was developed by Stufflebeam (and colleagues) in the 1960s but further instalments have been added at regular intervals. This model offers a framework for evaluation that views training as part of a system, and may be summarised as follows:

▸ **Context –** determining the rationale for the training event (the training need and the objectives).

▸ **Inputs –** identifying the inputs to the training event (trainees, design, development, etc.).

▸ **Process –** detecting if the training event was implemented as designed and planned.

▸ **Product –** measuring the outcomes in terms of trainees' learning and the extent to which it was applied in the work situation and fulfilled the need identified and analysed.

The further three components are related to "Product", and are as follows:

▸ **Effectiveness –** measuring the impact of the application of trainees' learning in an operational context.

▸ **Sustainability –** determining how well trainees' learning has become embedded (in operational terms) and what elements of the event's successes should be sustained.

▸ **Transportability –** identifying if the training event can be replicated in other areas of the organisation and if it can serve as a model for others or for future programs.
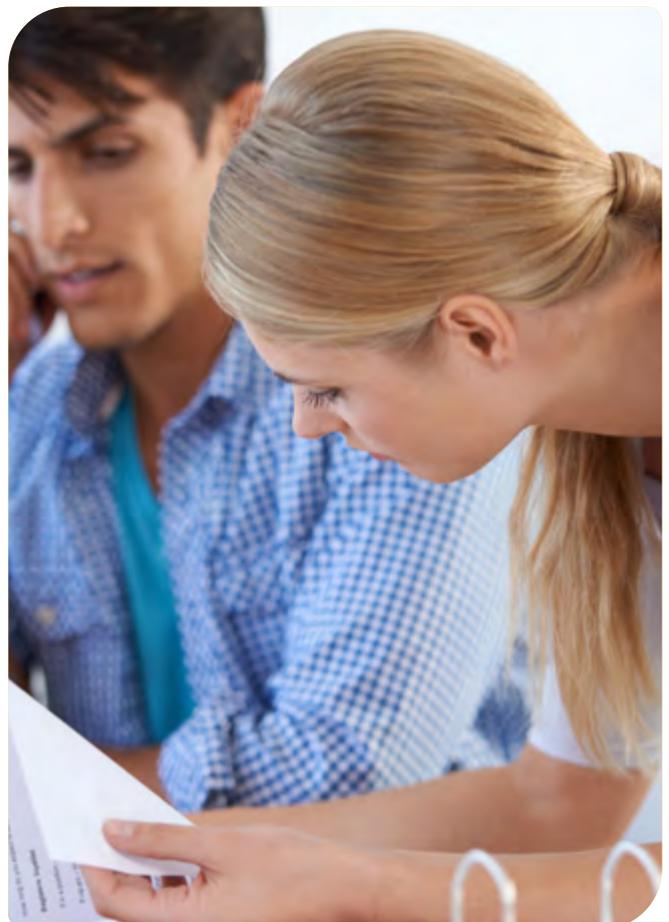
# FOUR LEVELS OF EVALUATION MODEL: EXPANDED

**(Kirkpatrick, 1967)**

We will now look at the Kirkpatrick Four Level Model in greater detail and explain how it can be used as a basis for an effective evaluation process.

## Level 1 – Reaction

Usually focused on gaining trainees' feelings and opinions at the end of the training activity. At this level, evaluation is mainly concerned with factors such as:

▸ Achievement of objectives.
▸ Suitability of the learning environment.
▸ Learning activities included.
▸ Learning methods/training approach adopted.
▸ Performance of the trainer.
▸ General administrative issues.

Trainees' opinions on these elements of the training event are generally gained through general discussion and/or questionnaires.

(a) **General discussion.** It is deemed useful to seek the reaction of learners (formally and informally) as a training programme progresses. Break-times offer an opportunity to enquire in an informal way if participants feel that the programme is "going to plan" or if there are any issues that need to be addressed. At the end of a day's training, more formal approaches can be adopted to gain feedback, including:

▸ Seeking individual feedback from participants (verbal, "round the group").
▸ Seeking individual feedback from participants (written, on "post-it" notes).
▸ Breaking participants into discussion groups to discuss aspects of the event and provide feedback (as a group).

It is also deemed useful to have a final round of evaluation discussion when evaluation questionnaires have been completed and collected. This allows the trainer to seek clarification of or elaboration on specific comments made by participants. An important point to note here is that the trainer should not respond to feedback by lengthy "justification" type statements.

(b) **Evaluation questionnaires.** It is common to find evaluation questionnaires (often nicknamed "happy sheets") distributed at the end of a training event and much debate surrounds the extent to which this type of feedback is useful. It can be suggested that most trainees tend to adopt a "rose-tinted" approach (for a variety of reasons) when completing such forms. Notwithstanding this, properly designed reaction-level questionnaires can provide useful data for trainers, especially in terms of identifying:

▸ The extent and nature of learning that trainees feel was most relevant to their requirements.
▸ What specific changes trainees feel will be applied in their job behaviour (these can be stated in the form of action plans).
▸ Suggestions for improving specific aspects of the training.

The quality of the information gleaned from end-of-programme evaluation questionnaires can be greatly enhanced by:

‣ Ensuring that a comments section is included on the questionnaire to facilitate the gathering of qualitative (providing a rationale behind the ratings) as well as quantitative (scoring type ratings that can be analysed "by numbers") data.

‣ Planning for adequate time to be available at the end of the training programme to ensure that participants do not feel under time pressure when completing them.

‣ Actively seek honest and frank feedback from participants – explain to them that valid honest and frank feedback is being sought.

‣ Explain to the participants exactly what will happen to the information and how it will be used.

‣ Provide examples of occasions when similar feedback from participants formed the basis for beneficial changes being made to training programmes.

‣ Provide the option of anonymity to participants (some will probably add their names in any case).

The development of evaluation questionnaires is discussed later in this chapter.

## Level 2 – Learning

The aim at this level is to establish if the trainees have acquired the knowledge, skills and attitudes that were set out in the training objectives.

This is generally measured during and/or at the end of training by: observing the trainee; written and/or oral tests; demonstrations of competence/practical exercises. Assessing learning at this level can be linked to the assessment techniques discussed in Chapter Eleven – Assessment Methods.

The results of evaluation at the learning level should be recorded and resulting data analysed on an ongoing basis. This data will give an indication of training effectiveness and may prompt reviews of the training programme/session.

## Level 3 – Behaviour

Evaluation at this level is focused on measuring the change in trainees' performance on return to the on-the-job as a result of participation in training. This is generally carried out by:

‣ Observation on-the-job.

‣ Reviewing performance records.

‣ Discussing progress with trainee and/or trainees' supervisor.

‣ Performance appraisals.

‣ Interviews/questionnaires.

The timing of evaluation at this level can vary considerably. For job behaviour involving general knowledge and skills, it may be usefully carried out within a short space of time. However, longer periods may elapse before job behaviour relating to interpersonal skills and attitudes is measured with any degree of success. Remember also that asking trainees to complete what might be call "Level 3" questionnaires, weeks or months after the training event is a very subjective exercise. It is deemed useful only if used in conjunction with other measurements of learning transfer.

It is important to bear in mind that a variety of factors can affect the transfer of learning to the work situation, including:

‣ Organisation culture (formal or informal) – the prevailing culture may mitigate against new learning and changes in behaviour being applied.

‣ Discouragement of manager/team leader – trainees' direct "boss" may have reasons to prefer if new learning was not applied (e.g. a group of trainees implementing new standards of quality or service may have an adverse effect on output).

‣ Discouragement of peers – this may be related to a sub-culture within an organisation, whereby influential peers wish to obstruct the implementation of new procedures, etc.

‣ Lack of management support – it may seem contradictory that higher levels of management would fail to support the implementation of new learning but this is not an uncommon occurrence and a variety of reasons can lie behind this.

▸ Lack of opportunity – while it is difficult to fathom, individuals are sometimes selected to participate in a training event and subsequently find that opportunities to implement their new learning are limited or non-existent.

To improve the transfer of learning to the work situation, a number of steps may be followed:

▸ Involve relevant manager/team leader in the identification of training needs, the design of training, and the setting of objectives.

▸ Instigate briefing sessions (before, during and following the training event) for trainees with relevant manager/team leader.

▸ Link learning consistently to its relevance and application in practical situations, making use of verbal examples, physical samples, practice and modelling.

▸ Build in time at conclusion of training event for trainees to reflect on specific ways learning may be applied and to formulate action plans along these lines (with a timeframe where relevant).

▸ Promote a culture of learning with the organisation. A supportive learning culture may be suggested as the most important ingredient in the successful transfer of learning.

## Level 4 – Results

Concerned with establishing the overall contribution made by a training event, or a series of training events, to the performance of trainees and hence to the organisation. A wide variety of elements may be measured at this level, and these may include:

▸ **Bottom-line –** turnover/profit margins.
▸ **Operational Performance –** production levels; service levels; cost reduction; quality levels; error rates; customer complaints; cost benefit analysis.
▸ **Job Satisfaction –** staff motivation and morale; absenteeism levels; staff turnover.
▸ **Soft Skills –** effectiveness of communications; problem-solving and decision-making; teamwork and team leadership; project management; time management.

▸ **Compliance/Technical –** accident levels; adherence to regulations and procedures; implementation of standards (quality, hygiene, environmental, etc.).

Measurement of these and other elements is quite common in organisations. However, from an evaluation perspective, it takes time, effort and expertise to try and assess the extent to which such improvements can be attributed to training, as other internal and external factors have to be taken into consideration in evaluation measurements.

In moving through the levels of this model, the evaluation process commonly becomes more difficult and time- consuming. However, the higher levels provide information that is of increasingly significant value. Information from the first two levels can assist in improving the training process. Meanwhile, evaluation at the higher levels can reinforce the benefits of investment in T & D, without which the training process itself may not occur.

## DEVELOPING EVALUATION QUESTIONNAIRES

The format, layout and wording of evaluation questionnaires can have a significant impact on the usefulness of the information provided. A number of issues to be considered when formulating reaction level evaluation questionnaires are outlined by Garavan et al (2003) and these may be summarised as follows:

(a) **Content** – this relates to the type of information being sought from respondents and four distinct types are suggested:
▸ **Beliefs** – identify what trainees believe is true or false about the training event.
▸ **Behaviour** – establish what behaviours have changed as a result of the training event.
▸ **Attitudes** – identify trainees' feelings about aspects of the learning event.
▸ **Attributes** – obtain information about the attributes of trainees (age, gender, job title, etc.).

(b) **Wording of statements/questions** – it is important that questions are clear, unambiguous and useful. In particular, they should be worded in a neutral fashion. Many evaluation questionnaires contain statements/questions with a positive focus. For example, trainees may be asked to answer, "true or false"/"yes or no" to statements such as, "Content was in line with my expectations", and "The trainer suitably assisted my learning". These statements suggest that the content was in line with expectations and that the trainer did suitably assist, etc. Neutral versions would frame a question along the lines of "Was the content in line with your expectations?" or "Did the trainer suitably assist your learning?"

(c) **Open-type questions** – open questions allow respondents to answer in their own words and are useful to gain more elaborate information about trainees' feelings. In particular, it allows trainees to explain why they were satisfied or unsatisfied with aspects of the training event. However, too many open questions may prove off-putting to trainees and also mean that analysis is time-consuming due to the qualitative nature of responses.

(d) **Closed/forced choice questions** – in this format a number of alternative options are provided and respondents choose one (or more). This is a relatively easy way to get feedback on specific issues and also means that analysis is more straightforward.

(e) **Rating scales** – this approach is commonly found on evaluation questionnaires. There may be variations in the terminology used (e.g., high/low; very satisfied/very dissatisfied, etc.) but trainees are asked to rate aspects of the event by marking a score on a given scale. It is important that rating scales are properly gauged; too few (e.g. a scale of 1-3) or too many (e.g. a scale of 1-10) ratings should be avoided. A scale of 1-7 is recommended, which leaves a score of 4 as a "middle" ranking. This format can provide extensive feedback that is relatively easy to analyse due to its quantitative nature.

## IMPROVEMENT OPPORTUNITIES AND PLANS

We have looked at the evaluation of training at various levels – the next step is to use the information gathered from the evaluation process to identify and implement relevant improvements. To review this process, we will use the Kirkpatrick (1967) 4-Level Evaluation Model as a framework.

### Level 1 – Reaction

An obvious first step is to analyse the data gathered from reaction level feedback. If the recommendations we made earlier have been followed, both qualitative and quantitative data will be available for analysis.

(a) **Quantitative data** – the ratings received by various aspects of the programme can be compiled and an average rating calculated. A standard can be applied against which the ratings will be judged (e.g. 70% rating or above satisfactory and no follow-up action is seen as required). Aspects of the programme rated lower than the standard can be earmarked for further investigation (trends across a delivery sequence of the same programme can also be taken into account).

One problem with rating scales arises when a below standard average rating is received and this is best explained by an example. An acceptable standard rating may be set at 70% for "Did the trainer satisfactorily assist your learning". If the average rating received falls below 70%, it is difficult to identify the reason behind this (it could be related to many different aspects of the trainer's delivery, approach, style, etc.). This raises again the importance of seeking feedback during the programme, of providing a facility for comments on evaluation questionnaires, and of having a final round of evaluation discussions.

Where below standard ratings are received, improvement plans should therefore flow not just from a review of the data, but also a process of reflection by the trainer. Where standard (or above) ratings are received, the trainer should again reflect on why this may be so, and plan to replicate the relevant conditions.

(b) **Qualitative data** – this is gathered from the comments submitted on evaluation forms and from direct feedback from participants. When analysing comments, it is advised to look for trends in the data (e.g. have a significant number of participants suggested that the pace of the training was too quick or that the handouts were very useful?).

Attention should be paid to isolated comments also, especially with regard to improvement areas. Even though it may be just a single participant who offers a specific comment (e.g. "a greater variety of learning aids could have been used"), it is worth the trainer's reflection.

With informative qualitative data, improvement plans can be focused on specific aspects of the training programme.

## Level 2 – Learning

The results of the assessment process will provide data concerning the extent to which the knowledge, skills and attitudes that were set out in the training objectives have been achieved. At this level, an acceptable standard may also be applicable (e.g. that 95% of trainees will successfully pass the assessment). A caveat here is that a variety of factors external to the training process may influence how well particular trainees perform during an assessment.

Where an acceptable standard is not achieved, several actions may be taken to assist with improvement opportunities and subsequent plans, including:

▸ Trainee analysis – educational attainments, backgrounds, previous experiences, etc. Were these very different to previous trainees who had more successful results?
▸ Interviews with trainees – have they any comments to make about particular aspects of the training or about the assessment process?
▸ Trainer reflection – did standard conditions pertain throughout the training and assessment process?

## Level 3 – Behaviour

As we have already outlined there are many factors that may affect the successful transfer of learning to the actual work situation. In situations where a poor transfer of learning is highlighted (by observation, performance reviews/records, or by reports from the relevant team leader, etc.) the following may assist in identifying improvement opportunities and subsequent plans:

▸ Interviews with trainees – find out their reasoning behind the fact that successful transfer of learning has not taken place. This may indicate whether the problem can be related to aspects of the training they have undertaken or to other factors.
▸ Interviews with team leaders/managers – obtain their opinion about the unsuccessful transfer of learning. Again, the information received may indicate whether the problem can be related to aspects of the training they have undertaken or to other factors.

## Level 4 – Results

The extent to which improvement opportunities can be identified at this level is dependent on many factors, including:

▸ We're training needs linked to organisational strategy.
▸ Were the aims and objectives of the training linked to specific organisational performance objectives?
▸ To what extent did the training carried out contribute (or fail to contribute) to organisational performance objectives?

## Evaluation Responsibilities

Reaction level evaluation is commonly organised and carried out internally by the training function. It may also be organised and carried out by an external trainer. However, it is always useful for internal trainers to seek trainees' opinions on an informal basis at suitable opportunities during training and to be involved in a review of feedback received from evaluation questionnaires.

Evaluating the effectiveness of training at the Learning and Job Behaviour Levels normally falls under the remit of the trainer (at operational level) or the relevant team leader/manager. These levels are primarily concerned with measuring and monitoring the competence of trainees as they progress through training into an on-the-job situation. This can be assisted by an effective system of training records.

The training department and senior management are normally responsible for evaluation at the Organisational Level.

## Learning Management Systems

The growing influence of e-learning approaches in organisations and the implementation of Learning Management Systems (LMS) are impacting on the nature of training evaluation. Although the overall philosophy remains the same, e-learning facilities and processes mean that data can be captured from assessment tests and practical exercises which are readily available for online analysis and reporting. Also, evaluation questionnaires and tests can be delivered electronically so that the data can be captured for later evaluation and review.

## Kirkpatrick New World Model 2016

The Kirkpatrick New World Model of Evaluation builds upon the original Kirkpatrick Model, developed in the 1950s and revised in 2016 by Kirkpatrick & Kirkpatrick

While the traditional Kirkpatrick Model outlines four levels of training evaluation as discussed above:

1. **Reaction:** Measures participants' immediate reactions to the training, such as satisfaction and engagement.
2. **Learning:** Assesses the extent to which participants have acquired new knowledge, skills, or attitudes as a result of the training.
3. **Behaviour:** Evaluates changes in participants' behaviour or performance on the job as a result of applying what they learned in training.
4. **Results:** Measures the impact of training on broader organizational goals and outcomes, such as increased productivity, cost savings, or improved customer satisfaction.

The Kirkpatrick New World Model expands upon this framework to address the evolving needs and challenges of modern organizations and learning environments. It introduces additional considerations related to the context, technology, and strategy of training evaluation. Some key features of the Kirkpatrick's New World Model include:

1. **Contextual Factors:** Recognizes the importance of considering organizational context, culture, and environment when evaluating training effectiveness. This involves assessing factors such as leadership support, resources, and alignment with organizational goals.
2. **Continuous Learning:** Emphasizes the need for ongoing learning and development beyond traditional training events. This includes supporting informal learning, knowledge sharing, and skill-building opportunities in the workplace.

3. **Technology Integration:** Acknowledges the role of technology in facilitating training delivery, data collection, and evaluation. This includes leveraging learning management systems, online assessments, and analytics tools to track learning outcomes and performance metrics.

4. **Performance Support:** Focuses on providing ongoing support and resources to help learners apply their knowledge and skills in real-world situations. This may involve job aids, coaching, mentoring, or peer-to-peer collaboration.

5. **Agile Evaluation:** Advocates for a flexible and iterative approach to evaluation that allows for rapid feedback and adaptation based on changing needs and circumstances. This involves using agile methodologies to test hypotheses, gather data, and make data-driven decisions.

6. **Impact Measurement:** Shifts the focus from measuring training inputs and outputs to evaluating the broader impact on organizational effectiveness and outcomes. This may involve assessing factors such as employee engagement, retention, and innovation.

Overall, the Kirkpatrick New World Model of Evaluation offers a more holistic and dynamic approach to training evaluation that considers the interconnectedness of learning, performance, and organizational success in today's rapidly changing business environment.

## SUMMARY

Evaluation is the fourth stage in the Systematic Training Cycle. However, it is not the final stage — training should be seen as a continuous process. The results of evaluation can feed into any of the other stages in relation to a training programme that has been completed or is still ongoing. Evaluation can help to highlight the effectiveness (or otherwise) of the identification and analysis of training needs; the design, planning and organisation of training interventions; and delivery of training.

It can raise critical issues in terms of improvement plans across all of these areas. On the other hand, when evaluation shows that a training programme is effective, the critical factors that were identified as contributing to this should be consolidated. In organisations where a proactive approach is adopted, the training cycle then moves on to the identification of fresh training needs. With this approach, T & D can continuously serve to improve organisational performance.

# REFERENCES

## Chapter 1: Training and Development – Background and Context

Argyris, C. (1957) Personality and Organization, New York: Harper Collins.

Bainbridge, S., Murray, J., Harrison, T., Ward, T. (2003) *"Learning for employment"*, 2nd report on vocational education and training policy in Europe, executive summary, Office for Official Publications of the European Communities, Luxembourg.

Bassanini, A. (2004) *"Improving Skills For More And Better Jobs: Does Training Make a Difference"*, Paper presented at OECD NERO meeting on labour market issues, Paris, 25 June 2004.

Brethower, D. & Smalley, K. (1992). *"An instructional paradigm for training in the 21st century"* Performance and Instruction, May/June 1992, 26-31. Washington, D.C. : National Society for Performance and Instruction.

CEDEFOP (2003) *"Workplace learning – reaching those with low skills and older workers"* Lifelong Learning: thematic workshop report, Prepared for the conference "Policy, Practice and Partnership: Getting to work on Lifelong Learning", 2nd/3rd June, CEDEFOP, Thessaloniki.

Costine, P. (2006) *"Overcoming Training Inequities – A General and Irish Perspective"*, Proceedings of 35th IFTDO World Conference & Exhibition, University Publication Centre, (UPENA), Malaysia.

Descy, P. & Tessaring, M. (2005) *"The value of learning – Evaluation and impact of education and training"*, 3rd Report on vocational training research in Europe: Executive Summary, Office for Official Publications of the European Communities, Luxembourg.

Durkheim, E. (1933). The Division of Labor in Society. New York: The Free Press.

Easterby-Smith, M., Burgoyne, J. and Araujo, L. (eds.) (1999) Organizational Learning and the Learning Organization, London: Sage.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N. (1997) *"Training, development, education and learning: different or the same?"* Journal of European Industrial Training, Vol. 21 Iss: 2, pp. 39-50.

Garavan, T.N., Hogan, C., Cahir-O'Donnell, A. (2009) Developing Managers and Leaders – Perspectives, Debates and Practices in Ireland, Dublin: Gill & Macmillan.

Hansson, B. & Wagner, P. (2004) *"Impact of education, training and skills/competences at company level"*, in Descy, P. & Tessaring, M. (2004) Impact of education and training, 3rd Report on vocational training research in Europe: Background Report, Office for Official Publications of the European Communities, Luxembourg.

Herzberg, F., Mausner, B., & Snyderman, B.B. (1959), The Motivation to Work, New York: John Wiley.

ILO (2004) "Recommendation Concerning Human Resources Development: Education, Training and Lifelong Learning" Adopted by the Conference at its Ninety-Second Session, Geneva, 17/06/04, International Labour Conference – Recommendation 195.

Knowles, M. S. (1973) The Adult Learner: A Neglected Species, Houston: Gulf Publishing Company. Maslow, A.H. (1943) *"A Theory of Human Motivation"*, Psychological Review 50(4): 370-96.

Mayhew, K. & Rijkers, B. (2004) *"How To Improve The Human Capital Of Older Workers Or The Sad Tale Of The Magic Bullet"*, Paper prepared for the joint EC-OECD Seminar on Human Capital and Labour Market Performance, held in Brussels, 8th December 2004.

McGregor, D. (1960) The Human Side of Enterprise, New York: McGraw-Hill.

Miller, V.A. (1996) *"The History of Training"*, in The ASTD Training and Development Handbook – A Guide to Human Resource Development, Craig, R.L. Editor in Chief, 4th Ed., NY: McGraw-Hill.

OECD (1999) *"Training of adult workers in OECD countries: measurement and analysis"*, Employment Outlook, Chapter 3, pp.135-175.

OECD (2003) *"Upgrading Workers' Skills and Competencies"*, Employment Outlook, Chapter 5, pp.237- 296.

OECD (2005) *"Promoting Adult Learning"*, Executive Summary, OECD.

Reid, M. A., Barrington, H. & Brown, M. (2004) Human Resource Development: Beyond Training Interventions, London: CIPD.

Roche, F. & Tansey, P. (1992) *"Industrial Training in Ireland"*, Report submitted to Industrial Policy Review Group, Dublin, Department of Industry & Trade.

Rogers, C.R. (1969) Freedom to Learn, Columbus: Free Press.

Sandberg, A. (1995) Enriching Production: Perspectives on Volvo's Uddevalla Plant as an Alternative to Lean Production, Aldershot: Avebury.

Sleight, D.A. (1993) A Developmental History of Training in the United States and Europe, Michigan State University: (www.tech.msu.edu/about/guidelines-policies/afs-retirement).

Smith, Adam (1977) [1776]. An Inquiry into the Nature and Causes of the Wealth of Nations. University Of Chicago Press

Taylor, F.W. (1911) The Principles of Scientific Management, New York: Harper Brothers. Tessaring, M. & Wannan, J. (2004) *"Vocational education and training – key to the future, Lisbon – Copenhagen – Maastricht: mobilising for 2010"* CEDEFOP synthesis of the Maastricht Study, Office for Official Publications of the European Communities, Luxembourg.

## Chapter 2: Training and Development – Organisational Context

Duncan, R.B. (1972) in Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice (p.267-268), Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Handy, C.B. (1985) Understanding Organisations, London: Penguin.

Johnson, G. and Scholes, K. (1997) Exploring Corporate Strategy. Europe: Prentice-Hall.

Kay, J. (1993) Foundations of Corporate Success: How Corporate Strategies Add Value, Oxford: Oxford University Press.

Marshall, J. and McLean, A. (1985), *"Exploring Organisation Culture as a Route to Organisational Change"* in Hammond V. (ed), Current Research in Management, pp. 2-20, London: Francis Pinter.

Mullins, L.J. (1999) Management and Organisational Behaviour (5th Edition), FT / Prentice Hall. Pugh, D. S., ed. (1990) Organization Theory: Selected Readings, Harmondsworth: Penguin.

Wickens, P. (1987) The Road to Nissan, London: MacMillan.


## Chapter 3: Adult Learning

Buckley, R & Caple, J. (1990) The Theory and Practice Of Training, London: Kogan Page.

Elias, J.L. & Merriam, S. (1995) Philosophical Foundations of Adult Education (2nd ed.), Malabar, Florida: Krieger.

Freire, P. (1970) Pedagogy of the Oppressed, New York: Herder and Herder.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Gardner, Howard (1983) Frames of Mind: The Theory of Multiple Intelligences, New York: Basic Books.

Gibbons, M. (1990) *A Working Model of the Learn How to Learn Process*, in R. Smith & Associates (1990) Learning How to Learn Across the Life Span, San Francisco: Jossey-Bass.

Honey, P. & Mumford, A (1995) Using Your Learning Styles, Maidenhead: Honey Publications. Knowles, M. S. (1973) The Adult Learner: A Neglected Species, Houston: Gulf Publishing Company
Kolb, D.A. (1974) Organisational Psychology: An Experiential Approach, Englewood Cliffs, NJ: Prentice Hall.

Rogers, A. (2003) *What is the Difference? A new critique of adult learning and teaching,* Leicester: NIACE.
Rogers, C.R. (1969) Freedom to Learn, Columbus: Free Press.

## Chapter 4: Systematic Training and Instructional Systems Design

Beckshi, P. & Doty, M. (2000) *"Instructional Systems Design: A Little Bit of ADDIEtude, Please"*, in The ASTD Handbook of Training Design & Delivery – A Comprehensive Guide to Creating and Delivering Training Programs-Instructor-Led, Computer-Based, or Self-Directed, NY: McGraw-Hill.

Buckley, R & Caple, J. (1990) The Theory and Practice Of Training, London: Kogan Page.

Gagné, R. (1985) The Conditions of Learning and the Theory of Instruction (4th ed.), New York: Holt, Rinehart, and Winston.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Meier, D. (2000) The Accelerated Learning Handbook, New York: McGraw-Hill.

Merrill, M.D., Drake, L., Lacy, M.J., Pratt, J. & the ID2 Research Group (1996) "Reclaiming Instructional Design", Educational Technology, 36 (5), 5-7.

Thiagarajan, S. (2000) *"Instructional Systems Design: A Little Bit of ADDIEtude, Please"*, in The ASTD Handbook of Training Design & Delivery – A Comprehensive Guide to Creating and Delivering Training Programs-Instructor-Led, Computer-Based, or Self-Directed, McGraw-Hill, NY.

Tripp, Steven and Bichelmeyer, Barbara. (1990) *"Rapid prototyping: An alternative instructional design strategy"* Educational Technology Research and Development, 38, 1, Pages 31-44

Whitten, J. L., Bentley, L. D., & Barlow, V. M. (1989) Systems Analysis & Design Methods (2nd ed.), Homewood, IL: Irwin.

## Chapter 5: Training Needs Identification and Analysis

Boydell, T.H (1983) A Guide to the Identification of Training Needs (2nd ed.), London: BACIE.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Gupta, K. (1999), A Practical Guide to Needs Assessment, Jossey-Bass/Pfeiffer: San Francisco.

Harless, J.H. (1973) *"An Analysis of Front-end Analysis: Improving Human Performance"* A Research Quarterly, 4, 229-244.

Rossett, A. (1999) First Things Fast – A Handbook for Performance Analysis, San Francisco: Jossey- Bass/ Pfeiffer.
The difference between Training Needs Analysis (TNA) and Learning Needs Analysis (LNA) — The L&D Academy (www.thelndacademy.com)


## Chapter 7: Training Design

Buckley, R & Caple, J. (1990) The Theory and Practice Of Training, London: Kogan Page.

Bloom B. S. (1956) Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain, New York: David McKay Co. Inc.

Boydell, T.H. (1997) *"Understanding the Process of Learning"*, Paper presented at the International Society of Training and Development Conference, Dublin: Trinity College.

Gagné, R. (1985) The Conditions of Learning and the Theory of Instruction, (4th ed.), New York: Holt, Rinehart and Winston.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Herzberg, Frederick (1959), The Motivation to Work, New York: John Wiley and Sons

Keller, J. M. (1987) *"Development and use of the ARCS model of motivational design"* Journal of Instructional

Development, 10 (3), 2-10.

Maslow, Abraham (1954) Motivation and Personality, New York: Harper. McGregor, D. (1960) The Human Side of Enterprise, New York: McGraw-Hill.

Rosenberg. M. (2001) e-Learning – Strategies for Delivering Knowledge in the Digital Age, USA: McGraw- Hill.

Schwier, R. A. (1998) *"Schwiercourses, EDCMM 802"*, Unpublished manuscript, University of Saskatchewan at Saskatoon, Canada.

Stammers, R. & Patrick, H. (1975) Psychology of Training, London: Metheun.

www.cathellis13.blogspot.ie/2009/04/ten-commandments-of-elearning.html

www.litmos.com/online-training/

## Chapter 8: Role and Competences of the Trainer

Bloom B. S. (1956) Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain. New York: David McKay Co Inc.

Promoting an Equal Learning Environment: Ensuring the right to equitable and inclusive quality education: results of the ninth consultation of Member States on the implementation of the UNESCO Convention and Recommendation against Discrimination in Education - UNESCO Digital Library

## Chapter 9: Preparing for Training Delivery

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

## Chapter 10: Delivering Training

Dakhi O, Irfan D. Blended learning: a 21st century learning model at college. *Int J Multi Sci.* 2020;1(08):50–65.

Gagné, R. (1985) The Conditions of Learning and the Theory of Instruction, (4th ed.), New York: Holt, Rinehart and Winston.

Malczyk BR. Introducing social work to HyFlex blended learning: a student-centered approach. *J Teach Soc Work.* 2019;39(4):414–428. doi:10.1080/08841233.2019.1652226

## Chapter 11: Assessing Learning

Nightingale, P., Te Wiata, I.T., Toohey, S., Ryan, G., Hughes, C., Magin, D. (1996) Assessing Learning in Universities Professional Development Centre, Australia: University of New South Wales.

## Chapter 12: Training Evaluation

Buckley, R & Caple, J. (1990) The Theory and Practice Of Training, London: Kogan Page.

Van Dyk P. S., Nel P.S., Loedolff P.V.Z., and Haasbroek, G.D., (1997) Training Management, Johannesburg: Thomson.

Easterby-Smith, M. (1986) Evaluation of Management Education, Training and Development, Aldershot: Gower

Garavan, T.N., Costine, P., Heraty, N. (1995) Training and Development in Ireland – Context, Policy and Practice, Dublin: Oak Tree Press.

Garavan, T.N., Hogan, C. & Cahir-O'Donnell (2003) Making Training and Development Work – A Best Practice Guide, Cork: Oak Tree Press.

Goldstein, I.L. (1986) Training in Organisations, Monterey, CA: Brooks Cole.

Kirkpatrick, D.L. (1967) *"Evaluation of Training"*, in Craig, R.L. & Bitten, L.R. (eds.) Training and Development Handbook, American Society for Training and Development, NY: McGraw-Hill.
*The New World Kirkpatrick Model.* (n.d.). Kirkpatrick Partners.

Warr, P., Bird, M. & Rackham, N. (1970) Evaluation of Management Training, London: Gower Press. Hamblin, A. C. (1974) The Evaluation and Control of Training, Maidenhead: McGraw-Hill Stufflebeam, D. (2007) Evaluation Theory, Models, & Application, San Francisco: Jossey-Bass.

Phillips, J.J. (1997) Handbook of Training Evaluation and Measurement Methods, London: Kogan Page.

**Note: All web-based references accessed April 2024**