

*Evaluation of Training*

***Distance Learning Part 2 - Models for EoT***

## INTRODUCTION

EoT is such a broad, poorly charted arena in which to work that we need all the guidance we can get. Unfortunately, there's only a limited selection of literature available to help plan EoT, and much of it is repetition of earlier studies. During the forthcoming workshop we'll present you with an overall '*EoT Matrix*', based on well-established EoT models. This will enable you to plan evaluation activities.

For now, the purpose is to introduce you to these models so that you'll understand how they contribute to the matrix. The models enable us to evaluate the **purposes** for evaluation, and the **levels** at which this can be done. In addition, you'll also need to devise suitable systems for you and your professional colleagues to use when carrying out EoT.

## ANALOGY

You may recall in Part 1 we used an imaginary course on Information Technology to illustrate issues affecting EoT. A training institution used its resources to build and equip an 'IT Centre', with modern computers and competent trainers. They are asked to run a series of 5-day 'IT Appreciation' courses. These courses are listed in the national calendar and people from a variety of public sector organisations are nominated to attend. We will refer to this situation throughout Part 2 of the EoT distance learning.

## EASTERBY-SMITH MODEL

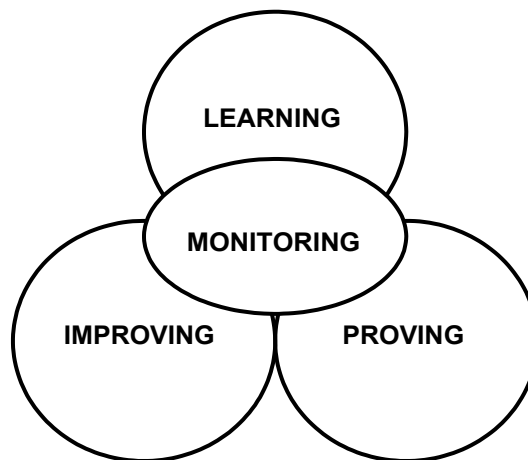


Figure 1

This model is adapted from one proposed by Mark Easterby-Smith. We have modified the original to suit the structure of training in the Indian public service. It is from this model, shown in Figure 1 above, that we suggest EoT systems can be given a focus or purpose. The model consists of four interrelated purposes. These purposes can be applied to all stakeholders involved with training and development.

#### Four Purposes of Evaluation

**Learning Processes** - where the quality of learning experiences is at the heart of all training and development activities. Here, evaluation is concerned with the processes used to provide satisfactory experiences for individuals and groups, both on and off the job - and to ensure they are objectively measured.

**Proving** Learning and Development - demonstrates that something has happened because of training and development activities. This may be linked to judgements about the value of the activity - whether the right thing was done, whether it was well done, and whether it was worth the cost.

**Improving** Learning and Development emphasises procedures to ensure that either current, or future training and development courses or programmes or activities become better than they are at present.

**Monitoring** Learning and Development - an essential feature of EoT is the exchange of information to ensure that organisational training functions and training institution's meet agreed targets; provide a satisfactory professional service; and make efficient use of available resources and facilities.

All four purposes can be regarded of equal importance, although your status, role and responsibilities will determine which of them will be a priority. An EoT function is likely to be unique to a particular organisation, using systems and procedures to satisfy internal and external clients, stakeholders and funding agencies. Easterby-Smith points out that although all four areas are of overlapping importance, you may focus EoT efforts in one or two of them.

#### LEARNING

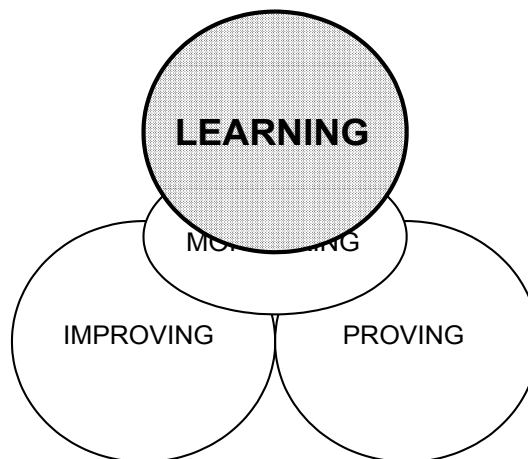


Figure 2

A definition for learning is: *'The process whereby individuals acquire knowledge, skills and attitudes, through experience, reflection, study, or instruction'*. Having read this definition, you could probably recall it later – or perhaps you'll quickly forget it. However, if we told you that you would be tested tomorrow on your ability to recall the definition would that improve matters?

There are two factors for you to note in respect to the definition. The first is that the focus of attention is on the *individual*, and the second factor is that there is the *process* for doing this. The process relates more to proving that the process is effective, and seeking ways to improving it. In this area of the EoT model, we are mainly concerned with evaluating how we help an individual to learn. Do we coerce individuals by threatening them with a test tomorrow? On the other hand, do we say ‘here’s a definition, learn it if you want’?

Learning is often seen as the heart of evaluation, but our brief is to develop systems and procedures for the evaluation of training. So, perhaps we should address different questions. For example:

1. How can we create optimum conditions for people to learn – both in a training institution and at the work place? How can we link this concern – helping people to learn, with the desire to improve?
2. Can we help people to learn without necessarily expecting them to be trained? What happens if people, through the absence of training, learn the wrong things?
3. Should we seek to adopt the principles of the ‘learning organisation’? If this is considered something worthwhile, what steps need to be taken – and how will we know whether those steps have been successfully achieved?
4. What about the concept of ‘andragogy’? Should this be included in EoT, after all we are involved with adult learning. The concept suggests that, as trainers, we create conditions for people to learn, which may require us to allow them to learn from each other. Case studies, role-plays and discussions – linked to peer/self assessment and process/product checklists could be used to create such conditions, where people can learn and be given feedback.
5. Should we help people to develop ‘learning skills’, so they are competent to learn for themselves? Mention of competence draws attention to the ‘outcome’ of learning and its assessment – should this be part of EoT?
6. When considering institutional training, and the over-reliance on lectures – notorious for poor learning – should we not make evaluation of methods of learning a feature of EoT?
7. With the introduction of distance learning, should we evaluate the quality of learning this material offers? Should EoT provision be included in distance learning packages? If not, how are packages to be improved?
8. How are we to assess people who have to cope with changes to their jobs – probably requiring them to ‘unlearn’ knowledge, skills and attitudes, acquired over years of service?
9. How are we going to evaluate an individual’s learning, when they are facing resistance from colleagues and superiors? Issues of culture and a failure to include provision for the transfer of learning may require a wider purpose for evaluation.
10. Taking into account the government’s intention of providing ‘training for all’, should evaluation draw attention to the use of performance or job aids? Should people be trained to use these aids to performance, rather than waste resources helping them to acquire knowledge and skills and possibly attempting to change their attitudes?

The assessment of knowledge through objective test items and skills through product/process checklists are accepted internal validation measure, even mandatory in safety sensitive situations. Unfortunately, as jobs become less reproductive, it is increasing difficult to measure, or even make a judgement about a person's performance. Productive tasks can be performed successfully in different ways, so how can we impose our assessment in situations where there may be alternative approaches – that are equally valid?

Recently more learner-centred approaches to assessing learning have been introduced, such as: peer/self assessment, learning logs and learning contracts. These encourage self-development and facilitate transfer of learning. However, such techniques are suitable only for well-educated people, who possess learning skills. The policy of 'training for all' implies *learning for all* – leading to concerns about how we can evaluate learning for lower cadre workers. You are unlikely to find an answer in standard text books!

## **ANALOGY**

If you've taken the course in Direct Trainer Skills you may recall reference to creating a 'learning event' – an activity that a trainee finds an interesting and rewarding experience. Such learning events must be an integral part of the IT Appreciation course – trainees are helped to overcome learning difficulties, encouraged to practise IT skills, so that they gain competence and confidence. The problem with IT training is that people are likely to have a wide range of entry behaviours – from the anxious novice to people with perhaps some but insufficient understanding of the subject.

It will be important to recognise that to evaluate learning we need to associate it with individuals' learning needs. For EoT, in respect to the IT Appreciation course, this may require *giving* feedback on learning activities and *accepting* feedback on the suitability, pace and relevance of learning events. Frequently, learning is focussed not simply on the needs of individuals, but also collective learning experiences involving others. An example from the course could be learning how to use emails – possibly involving unlearning existing systems and developing a new approach to communication. In this example, learning is extended from the needs of an individual to all those exchanging information by email.

## **PROVING**

According to Easterby-Smith, the first major evaluation study was carried out during the Second World War, when more than one million people in the USA received supervisory training. When asked by a government committee for evidence that the expenditure was worthwhile, the training providers gave information to indicate a 25% increased productivity in two-thirds of the factories involved. Although this example is now dated, it serves to illustrate the need to be able to prove that effective training was being done, and had measurable benefit. It's interesting that this supervisory programme was part of a major initiative to improve the quality of training in the US and Europe. Many concepts and practices then developed are still in use today.

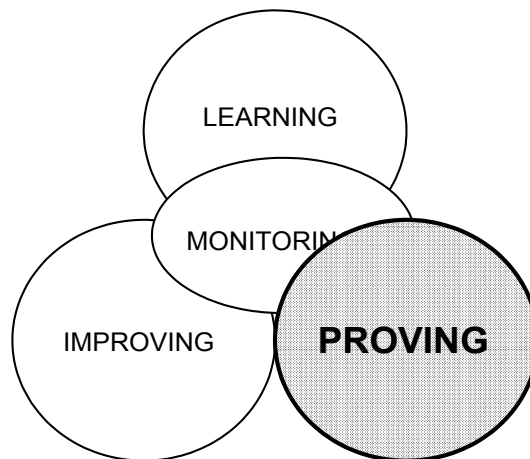


Figure 2

Although a considerable amount of training is being done within the Indian public services, some of it is being done as an ‘act of faith’ - rather than a conviction, supported by evidence of its value. An implication of the government’s policy of ‘value for money’ is to show proof of something accomplished. However, to enable you to show proof, you’ll need:

- A **reference** that clarifies what needs to be changed, and the criteria used to assess the resultant change. The recent introduction of TNA should provide more information about actual training needs, with details of the desired standards of performance. Obtaining this information, and including it a formal *design brief*, becomes an essential component to the provision and evaluation of effective training.
- **Measuring tools** that are appropriate to what is being measured and acceptable to the people using them. The development of an EoT toolkit provides a selection of techniques and guidelines, which can be adapted to suit organisational or institutional requirements.

This is perhaps the most difficult area for evaluation, as much depends on what you wish to prove and who will be involved. You are likely to encounter difficulties. For example:

1. Much will depend on the quality of information you have about client organisations, in particular whether TNA has been done - and to which you have access.
2. If no standards of performance have been agreed, nor levels of performance acceptable to management, then you don’t have a reference, upon which proof can be measured.
3. Proving training in the confines of a training institute - where you have some authority and control - may prove relatively easy, in contrast to an on-job situation.
4. The choice of measuring techniques could create problems. You may wish to use one’s that are likely to be effective, but unacceptable to client organisations or difficult to administer.
5. You may be unable to gain access to key stakeholders, whose judgement could be a crucial factor.

6. Proving training effectiveness is different from proving its efficiency. Proving both will enable you to report an overall value of a training programme.
7. Non-training implications could impede training activities. In such situations, where external validation is likely to report a lack of success, you may need to ensure thorough internal validation measures are used.
8. You may encounter people with great *sources of power* for whom EoT may conflict with their interests. In such circumstances, you may find it impossible to obtain verifiable proof - depending on your status or access to alternative sources of power.
9. Although you are confident that the training you provide is of high quality and effective, you need to have sufficient evidence to confirm this belief. To maintain or attract resources for training, it's advisable to focus attention and supporting evidence on the *outcome* of training. Make sure that clients, key stakeholders and funding agencies are aware of success stories - what people and organisations can do because of their training.
10. A weakness shared by many trainers is that by instinct we want to help people to learn and develop. This gives us job satisfaction. However, the instinct of somebody running a business would be to use evidence of success to promote further business. Perhaps it's an instinct worth using to market our professional services. Having proved the success of the training, what are you going to do with the proof?

Notwithstanding these difficulties, there are considerable benefits to be obtained from EoT. At a professional you'll find out whether your services as a trainer are well regarded by trainees and stakeholders; at a business level you're establishing the viability of the training function. The advice on offer is limited and not necessarily suited to EoT in the Indian public service. Perhaps in a few years, when EoT has become an established feature of training, case histories and evolving systems and procedures will limit such difficulties, as listed above. Possibly the only sound advice we can offer is to emphasise the importance of TNA consultancies. Easterby-Smith and other authors make the point of engaging with stakeholders, using their values and criteria as a basis for evaluation - an inherent feature of TNA.

## ANALOGY

Although our IT Appreciation course is imaginary, no doubt a real one would have objectives, stating what a trainee can do on completion of the course. However, how will we, or the trainee, or the sponsoring organisation, know that these objectives have been achieved? What proof will be available to provide evidence? Bearing in mind the significant resources used to train a person, surely it's reasonable to expect some confirmation that he or she has successfully completed the course and achieved the stated objectives. Simply stating that a person has been 'successful', begs the question about who and how this assessment was made. What criteria were used?

It's a fair comment to point out that 'appreciation' courses rarely offer specific, measurable outcomes. Nevertheless, unless trainers and training institutions can **prove** that the course they are offering leads to some meaningful result, why should organisations nominate staff? Also, from the point of view of funding agencies, what is the justification for running the course - or, indeed, providing funds to equip an IT training room. If there's no proof that something is worth doing, why do it?

No doubt, with a genuine need for IT training, there's a strong case for running IT courses. However, to justify the considerable costs incurred, funding agencies and client organisations should expect to be given proof that their investment leads to acceptable benefits. Using this '**proving**' purpose for EoT perhaps we can see a situation where, for example, funding agencies only approve training proposals which include details of systems and procedures used to prove success. From an institution's point of view, perhaps the best advice would be not to offer to do something you cannot prove to accomplish.

## IMPROVING

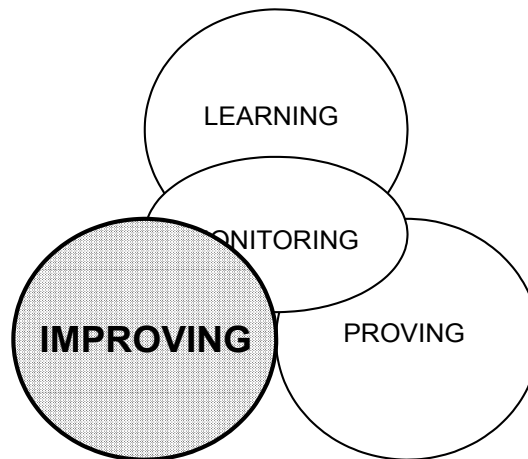


Figure 4

Often, when we purchase consumer products, we see reference to the manufacturer's commitment to introduce changes, as part of their policy of product development. ISO \*\*\*\* is a standard concerned with assuring customers that the vender's products and services are backed by an effective system of quality control. 'Customer Care' is a major concern of the more progressive organisations in both the public and private sectors. During the writing of this text a representative of the Market Research Society knocked on the door and asked if he could ask questions about supermarkets. He issued a leaflet explaining the context and regulations for his market research, including the following paragraph:

'Market research is *your* opportunity to give *your* opinion on things that may affect *you* and *your* family. Manufacturers, retailers, service companies, political parties and the Government can only succeed if they please you, the customer, so they need to find out what you need and what you want. Your opinion can influence a wide range of products from pension plans to washing powder and also have a bearing on issues that affect the quality of your life.

It is the job of the market researchers to ask questions - to find out what you, and people like you, think'

Some organisations make great efforts to seek feedback from customers about the quality of their products or services - the illustration, above shows how some do this. Hopefully, this information is used to make improvements to what they do. As trainers, we can do the same.

Authors on the subject of EoT regard improving training as an easier option than attempting to prove it. The problem is that without first proving that a training course, for example, has already a proven record of effectiveness, how can we attempt to improve it? Consider some ways in which a proven training course could be improved:



1. Ensuring that it is based on a thorough TNA, which may itself require improving if the course is run frequently. Changes to technologies, systems and regulations may lead to frequent revisions to course content.
2. Carry out rigorous internal evaluation. Establish procedures to link feedback from trainees, during their training to ensure that it satisfies their needs and helps them to achieve the stated objectives.
3. Innovate, or introduce new activities to improve the training process and the results obtained. For example, the government's recent project to develop distance learning may lead to changes to course provision.
4. Comparing output from a course - the number of people trained - to the demand for it. If there's a significant mismatch, then course provision can be reviewed - should there be more or less?
5. Efficiency is another area for potential improvement. This can be done, for example, by reducing the length of a course, or by using different methods for its delivery.
6. One of the weakest features of course provision is in transferring learning from a course to its application at the work place. Improvement initiatives can be based on analysing the reasons for problems of transfer - but who should be responsible for this?
7. There is a risk of concentrating on improving a course, rather than also including the systems being used. For example, no matter how well you improve a course, unless suitable people are nominated to attend it no real improvement is likely to be realised.
8. Although most trainers in the Indian public service have attended the Direct Trainer Skills course and the Design of Training course, perhaps greater efforts can be made to help them develop. For example, by encouraging newly appointed trainers to develop instructional skills, and for more experienced trainers to devise better courses, both they and their trainees will be helped to improve. Perhaps one initiative would be to introduce the concept of Continuing Professional Development (CPD), where learning is linked formally to assessment - both for the individual and for their employing organisation.
9. The counterpoint to 8. is, however, that unless initiatives are made to encourage improvements nothing is likely to improve.
10. Leading on from 8. and 9. is the need to establish communication, commitment and joint responsibility with all concerned with an improvement initiative.

The underlying philosophy could be: 'Start with a good course and constantly seek ways to improve it'. Although Easterby-Smith comments on the difficulties associated with 'improving', he notes that in a more positive sense there has been a considerable amount of work done recently which views evaluation as an aid to decision-making. Perhaps this could be a major feature of the EoT systems and procedures used for improving.

## ANALOGY

If you've no evidence, or means of measuring existing performance then how can you claim improvement? From the points made above, it's evident that the basis for this '**improving**' purpose of EoT can only be accomplished when it follows TNA. Without information about the present use of IT, details of what is done and the people involved, then there's no reference base from which to measure any improvement.

Running an IT Appreciation course can be seen as a superficial, cosmetic approach to meeting a real performance problem. Also, even if the course is a proven success, it may not lead to improved performance - and, if it did, can this be attributed to attending the course?

For the IT Appreciation course to be regarded as successful, it must be associated with improving the knowledge, skills, attitudes and performance of trainees. The stronger we can make the link between the course and identifiable improvements, then the easier it will be to justify the existence of the training institute and this course. Failure to include this purpose within EoT is likely to lead to indifference from potential client organisations and a marginalisation of training services.

Essentially, improving is concerned with 'input' and 'output'. EoT directed at improving input examines the quality of what we do - design, development, delivery and assessment of training. When evaluation is directed at improving output, the focus of attention is our efficient use of available resources - our productivity.

## MONITORING

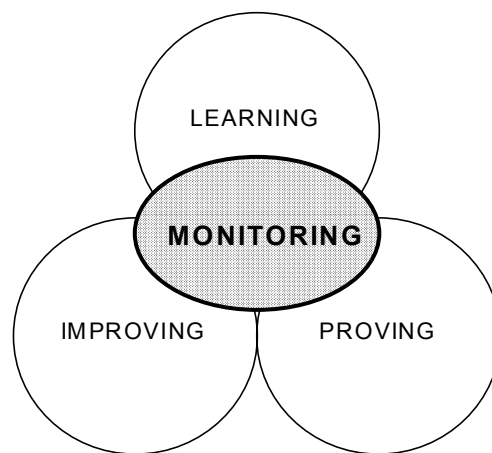


Figure 5

Research studies indicate that effectiveness of training and development is significantly increased if the monitoring of people involved in delivery and facilitation is undertaken. The development of a Training Management Information System (TMIS) will provide a framework for procedures to be developed, suited to the import and export of information. The central role played by the DoPT, as a funding agency, places it as a major feature of this area of EoT.

Perhaps an anecdote can be used to illustrate the importance of monitoring. Several years ago, during a training of trainer's consultancy for Indian Railways, a chance, an unscheduled visit to a small training centre in Hyderabad produced some interesting findings. The centre ran courses on bridge inspections for Southern Railway and the trainer responsible for the course had produced a training package, developed specifically for the course. There was evidence of research, planning and the development of good quality

training material. During a discussion with an experienced railway official, also a visitor, the trainer - on his own initiative, had evidently spent a considerable amount of time and effort developing the package, which provided detailed guidelines for the range of bridges likely to be inspected. It was a pleasure meeting this trainer and looking round a small, somewhat impoverished training centre - but one demonstrating good training practice. The only surprise was to find that nobody at central office was aware of the trainer's existence, nor of the package he'd developed. Yet there are bridges to be inspected all over the country - perhaps this package could have been used nationally. Unfortunately, nobody - except the trainer and his trainees were aware of this. Possibly, if there had been a system for monitoring courses this trainer could have been spotted and encouraged to continue his development.

Another strand to this anecdote was during a scheduled visit, also in Hyderabad, to a technical training centre. During a discussion with an instructor, he had evidently been running the same course for over ten years - without, it seemed, any attempt to validate it. Here's an example of a 'passive provider' - although it would be unfair to blame the particular instructor we met. Possibly, if there had been a monitoring system, changes would have been made in the course to reflect technological or systems developments. A final example about this anecdote is a visit to Golden Rock and then to Bangalore - where the same course was being run at respective training centres, although for different railways. At one, there was evidence of thorough preparation, with excellent visual aids and handouts - all in what appeared to be a well organised training centre. Then we went to the other centre, where none of these indicators were in evidence. Why not? Surely one centre could have collaborated with the other - apparently not. Again, it's unfair to blame the people concerned, but if the concept of 'networking' was built in to an effective monitoring system, good practice and access to resources could be shared - creating a 'win/win' situation.

Monitoring has the potential to make a vital contribution to training in the Indian public service, and one that is not simply concerned with evaluating training. An effective monitoring system, using an IT-based Training Management Information System (TMIS) would enable:

1. Costs monitored and compared.
2. Common interest networks to be established.
3. Resource support services evolved to facilitate access to resources.
4. Centres of excellence to be identified and encouraged to share their expertise
5. Training packages to be developed and shared.
6. Projects for continuing professional development.
7. Better communication with funding agencies.

## ANALOGY

The quality and effectiveness of the IT Appreciation course will be greatly enhanced if trainers and the training institute are aware of the criteria being used to **monitor** course provision. Procedures devised to meet other purposes of EoT should be taken into account

The EoT function should include tasks that will be carried out by funding agencies, departmental personnel and institutional directors. Some of these tasks will be administrative, dealing with EoT systems; other tasks require the involvement of senior officers - usually leading to decision-making. Using the IT Appreciation course as an example, this may require decisions on:

- The views of trainees about the quality of their learning during the course.
- Is there sufficient evidence proving that the course worth running?
- Is there evidence to show that performance is improving?

- If not, why?
- If so, how many courses should be run with the existing facilities?
- Should additional facilities be set up at other institutions?
- Are there alternative strategies to consider?

Decisions based on answers to these questions can only be made when there is sufficient information available - obtained from within the EoT function.

### **HAMBLIN -KIRKPATRICK MODEL**

Using Mark Easterby-Smith's model, modified to suit training in the Indian public sector - we can clarify the intended *purpose* for EoT. So, although the first issue to resolve might be to ask 'What is the **purpose** of your proposed EoT?' Having clarified this, it may lead to further questions - for example:

- Who will be involved in the EoT?
- How many people will be involved?
- What is their likely reaction to the evaluation?
- Whose authorisation will be required?
- What is the timescale?
- What resource support will be needed - i.e. time and funding?
- How will the information you obtain be used?
- What are the anticipated decisions likely to result from the proposed EoT?
- What are the likely political implications to consider?

There are several models, other than Easterby-Smith, that can help to address the questions listed above. Two are of particular relevance to EoT:

Hamblin, A.C., (1974), *Evaluation and Control of Training*, McGraw-Hill.

Kirkpatrick, D.L., (1994), *Evaluating Training Programmes*, Berett-Koehler.

Using the concepts suggested by these authors we can develop an extra dimension to our overall concept of EoT by defining various **levels** of evaluation. We will describe each level by using our IT Appreciation course to illustrate typical applications.

### **DESCRIPTION OF MODEL**

The basis of the model, shown in Figure 6, is the reason for evaluation - training. Perhaps all too frequently, training has been done without any serious, structured, framework with which it can be evaluated. Hamblin makes an important point when stating '... we can learn to modify our behaviour as a result of all kinds of experience; but if we are being *trained*, this implies that we are being put through an experience designed to make us learn'.

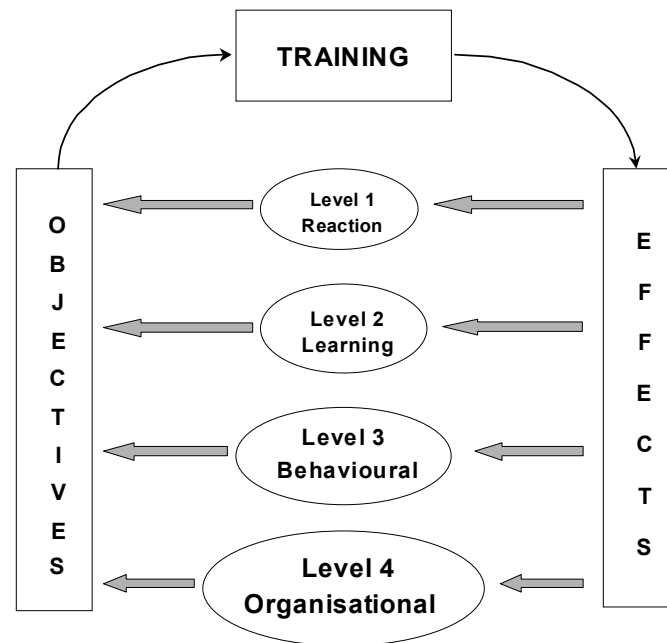


Figure 6

If we are to evaluate training, other than by subjective opinions, we must collect appropriate information about the *changes* caused by training. To do this systematically we must think about the *effects* that a certain training activity will have and the sequence with which these effects will occur. Consider this as a ‘cause and effect’ process. A chain linking four levels of training.

As Figure 6 shows, a training activity elicits reactions from people being trained. The concern for EoT is to have procedures available to enable these reactions to be recorded and information fed back to whoever is providing the training. At this point, in relation to the model we have a situation where:

- Training has been provided and resources used.
- Trainees are likely to have reacted to the learning opportunities designed for them.
- Procedures have been used to record their reactions.
- Level 1 feedback can modify objectives and further develop training provision.
- Training repeated, as required.
- Evaluation procedures continue to be used at levels 2, 3 and 4.

This chain may break at any of its links. A trainee may react correctly during a course but fail to learn; he or she may learn but fails to apply this on-the-job. Even if trainees change their job behaviour, it may not result in improved organisational performance. Without EoT, there is unlikely to be a process, and these links never identified or investigated for breaks. The task you face, when carrying out EoT is to:

- Develop an effective process for evaluating training that clearly links the four levels.
- Develop procedures suited to the collection of appropriate information.
- Ensure that procedures are used to monitor training activities.
- Identify breaks in the links.
- Give feedback to those responsible for remedial action.
- Take action to improve quality of training, or its effectiveness, or efficiency.

## **LEVELS OF EVALUATION**

### **Level 1 Reactions**

Obtaining feedback from trainees about the quality of training they have received initiates EoT. Their opinions about the content, pace, methodology, tutorial support, learning materials and the facilities available are essential components in monitoring and improving the quality of training. The basis for obtaining this information is usually done by using 'Immediate Reaction Questionnaires' (IRQ).

Remember the possibility of the 'halo-horns' effect, where trainees react to the messenger (trainer) rather than the message (what they are required to learn). Reactions that are 'good' or 'bad' may only be relevant at level 1, when trainees face interesting learning opportunities, or difficult challenges. It's possible for trainee reactions to be anticipated if TNA has been done, and learning needs or performance problems identified.

It's also worth noting that if only level 1 EoT is done, then the quality and value of information being monitored or fed back for decision-making is poor and misleading. For example, due to critical information obtained from IRQ's could result in a course being cancelled, when EoT at a higher level shows evidence of ultimate benefit to both trainee and employing organisation.

### **Level 2 Learning**

The purpose of training is to organise learning on the behalf of trainees so that they achieve specified objectives. The outcome of this process is to assess a trainee's acquisition of knowledge, skills and attitudes relevant to their needs. This can be done using formal tests or with a less intrusive form of assessment. Examples of assessment techniques include:

- Objective tests
- Simulations
- Performance tests
- Assignments and projects
- Checklists
- Interviews
- Observation
- Peer/self-assessment

### **Level 3 Job Behaviour**

The crucial factor here is the extent to which training needs have been analysed. This will identify the behaviours people need to develop in order for them to do their job to a satisfactory standard. The information is vital to determining the 'input' needed for effective training - specified in terms of knowledge, skills and attitudes. This information is also as the basis for assessing the 'outcomes' of the learning process. The following is a list of information needed to effectively evaluate job behaviour:

- Current job profile/description
- Specific tasks or competences
- Standards of performance
- Performance targets
- Categories of knowledge - principles, concepts, facts, procedures, etc.

Categories of skills - manual, interpersonal, keyboard, problem solving

Indicators of attitudes

#### **Level 4 Departmental/Organisational**

Ultimately, the final evaluation of training will be done by the organisation paying for it. Irrespective of the opinion of trainees to the quality of the training, and benefits they obtain from it, senior management will evaluate the investment by seeking answers to the following questions:

Cost benefit - is the cost of training justified in relation to the benefits it provides?

Does the organisation still require this training?

Can the organisation risk or accept the consequences of poor training?

Is certain training required by legislation - and is it effective?

Has training reduced wastage, administrative delays, customer complaints, etc...?

Has training improved productivity, sales, morale, quality, etc...?

If the answer to these questions is 'No', the consequences could be for senior management to ask 'Why waste time, money and resources doing something that appears to have no value to the organisation'? However, if the initial levels of evaluation have been done, you will have substantial evidence to prove that training has helped employees and the organisation to improve performance.

A point referred to by Hamblin is that all organisations have four primary objectives, which are in order of primacy:

Survival of the organisation.

Creation of surplus - services, products, profit.

Welfare of interested parties.

Social/political welfare.

Considering these factors at level 4 may involve senior management and funding agencies scrutinising with great care the information available, especially from level 3.

#### **ANALOGY**

You may recall our use of an imaginary 'IT Appreciation' course to illustrate various aspects of EoT. We'll continue to use this to describe how the model, based on Hamblin - Kirkpatrick, can be applied. Be assured that the course, as described, is a figment of our imagination and doesn't refer to any particular course or institution.

#### **Level 1 - Reaction**

People react differently to situations, based on experiences, both good and bad. Also, reactions may reflect their status, motivation, culture, beliefs, etc. Often, as trainers, we don't know how people will react to an opportunity to learn. Perhaps, when you were reading the above paragraph introducing the analogy, you reacted to the statement. You may regard the notion of an 'IT Appreciation' course as nonsense - what do you mean by 'appreciation'? Alternatively, you may have designed or run such a course and feel offended by the prospect of criticism. Mention of 'course or institution' could lead you to relate the analogy to your own work situation. This may encourage you to pursue the opportunity to learn - or it might create a barrier to your learning and, consequently, switch off your motivation to learn.

Consider the people taking the IT Appreciation course and their potential reaction to it:

- Some people were on the course because they were told to attend and saw no relationship between the course and their work.
- Other people were having computer-based systems installed in their office and were keen to learn how to use MS Word and e-mails.
- Other people already had IT systems, but had never been trained to use them
- In most of the courses some people had keyboard skills, whereas others had no idea how to type or input data.

Note that we have used the term *people*, rather than our usual practice of referring to them as *trainees*. Does it matter? Well, many of the imaginary people we refer to above may regard themselves as government officials, doing important jobs, with many years experience and respected members of staff. As far as they are concerned, trainees are young probationers, who need to learn the basics. In the Design of Training course we deal with this concept, which is called 'andragogy' - adult learning. It's important here, when we are considering reactions to training. Because the concept recommends creating shared learning experiences - where trainers work with trainees (or learners, or participants) to satisfy their needs, in relation to the course's stated objectives.

However, this situation can only be accomplished if there are effective procedures for obtaining trainees' reactions and being able to make an effective response. The model in Fig.1 refers to this as *reactions to objectives* - which can be interpreted in several ways:

- Course trainers, having obtained initial reactions from trainees, negotiate modifications to stated course objectives. This might be done for individual, small groups or for all trainees. By seeking reactions, trainers are demonstrating a willingness to adopt a learner-centred approach - much favoured by trainees.
- Another approach to reaction-level feedback is to use the information to revise course provision. Circumstances, such as lack of equipment, trainers or time may limit what can be done during a particular course but information obtained could be used to make changes to subsequent courses.
- When a course is being monitored there should be evidence of reaction-level EoT - then further evidence to show how this information has been used to improve the quality of course provision.

## Level 2 - Learning

We once had a participant on a DTS-type course who introduced himself by stating the reason he was there was because his boss had told him to attend. Later, it emerged that the new boss had seen 'our' participant running a course and told him that he should not run any further courses until he had attended a course to learn how to do it properly. Understandably, the participant's reaction to attending the course, and activities during it, were not favourable. So, why mention it? Well, some months later, our former participant contacted us about sending other trainers on the course. Evidently, learning had taken place, although this was an extended process done after the course - presumably with the support of his boss.

At level 2, in respect to the IT Appreciation course, we are looking for confirmation that people have acquired knowledge and skills, also evidence that they are adopting an appropriate attitude. A strong case in favour of such courses is that they can start a process of learning and development, without necessarily offering long-term support. This is where we can stress the distinction between a training *course* and a training *programme*. A course, usually done off-the-



job at a training institute, offers people opportunities to achieve specific *learning* objectives. A training programme extends this to help people use their learning to improve job performance - often requiring not only a course but also continued practice on-the-job. Therefore, for level 2 EoT, for the IT Appreciation course, we need to consider:

- How to assess whether trainees have acquired the knowledge and skills stated in course objectives. Assessment can be done by means of a formal test or by means of personal formative feedback. As we are considering an appreciation course, any attempt to impose a formal test would be inappropriate, but in another situation essential. People working as air traffic controllers are using IT - no doubt, we'll feel safer knowing that such people have been rigorously tested.
- Often assessment can be 'embedded' in the learning process. For the IT Appreciation course, this can be provided within tutorial software and is usually a feature of open learning systems.
- Perhaps, for the IT Appreciation course, learning about IT has only just started. Trainees need to be involved in a training programme, where their learning can continue and be focussed on job performance. This is where the concept of modular training can be used to sustain and assess learning and development. EoT at level 2 should be seeking to establish, use and monitor systems that reassure client organisations and funding agencies of the benefits of their investment. At least trainees will have requisite knowledge and skills - whether this leads to improved job performance is for level 3.
- The model, at level 2, shows feedback to learning objectives. Therefore, when monitoring EoT at this level we should include evidence of how we assess the effects of learning, and how this information is being fed back to course objectives, its content and learning process.

### **Level 3 - Job Behaviour**

During the forthcoming workshop we'll consider some general issues you are likely encounter. One issue is the *transfer of learning* - included as a concept paper in the Design of Training course. For level 3 EoT, it's a major concern. Using our IT Appreciation course as an illustration, we can show evidence of successful learning outcomes, based on level 2 assessment. We can also provide evidence that despite occasionally negative reactions at level 1, most course participants acquire an appreciation of IT and started to develop skills they'll require for their job. In other words, although the course is a success, the problem is evaluating its effects on the job. Taking our IT course to illustrate what is probably a frequent situation:

- Trainees do not practise their skills under working conditions, which results in a steady deterioration in performance.
- Management is not supportive, failing to recognise the needs to create conditions where learning can be channelled into appropriate behaviour.
- Although trainees have learned the correct way to perform IT tasks, when they return to their job they see other people doing them differently. Here, at EoT level 2, there's evidence of successful learning - which due to other factors does not lead to effective behaviour.
- Trainees are moved on to other duties or responsibilities where appreciation of IT is no longer required.

When investment circumstances are tight - where funding agencies are looking for ways to reduce resources, the lack of level 3 evidence could lead to a decision to withdraw support. What is the justification for continuing to support a course that doesn't improve the performance of people who have attended it? Although evidence is available to prove that learning has taken place - level 2, there's no information about actual improvement - at level 3.

A factor that could significantly change the situation is the introduction of the TNA Consultancy skills course. Increasingly, there will be trainers and other government officers competent to carry out TNA consultancies with client organisations. If IT is a performance problem in a particular client organisation, then it can be analysed and recommendations made to management. This should produce performance-related criteria, which can be used for EoT, and to provide specific design briefs. This should enable feedback to be obtained from level 3 assessment and the information fed to course and learning objectives.

#### **Level 4 Departmental/Organisational**

Perhaps for our imaginary course there's unlikely to be level 4 evaluation. Any attempt to do so, based on subjective opinion, has no validity in respect to departmental/organisational performance. In addition, any attempt to do so without having done Level 3 could lead to flawed conclusions.

Following the introduction of TNA consultancies, greater emphasis can be given to level 3 EoT. Once this is established, EoT at level 4 can be used to enable strategic decisions to be made. For our analogy, this could be to decide whether the IT Appreciation course should continue. Perhaps alternative approaches might prove more effective, or lead to more efficient means of satisfying government policy of providing 'training for all'. This is a subject we'll return to during the workshop.