

Evaluation of Training

COURSE GUIDE

INTRODUCTION

Investment in training can only be justified if it leads to improved performance. This applies to public and private organisations, departments of government, NGO's and, especially to individual employees and beneficiaries. For training to make an effective contribution to improved performance, and to help people to develop their potential, it should be based on all four stages of the Systematic Approach to Training (SAT). The fourth and final stage of this requires that training is evaluated. This enables the management of the time, money and resources invested in helping people and organisations to improve performance and develop their workforce.

Evaluation should concern all those involved in training and development - funding agencies, client organisations, heads of departments; also, employees at all levels and beneficiaries. All will have views about the quality, effectiveness and utility of training carried out on their behalf. Are their views known? How are such views, with substantive data, collected and used to check quality, effectiveness and efficiency of training services? Only when this is done can decisions be made about initiating improvements.

The Evaluation of Training (EoT) course establishes a framework within which decisions can be made. Should a particular course continue to be run? How can it be improved? What response has been made to TNA consultancy reports? How effective is distance learning in meeting government's intention to provide 'training for all'? These are typical questions that should be asked when carrying out EoT, with different people expressing and exchanging a variety of views.

DESIGNED FOR

The Evaluation of Training course is intended for institutional and departmental trainers; stakeholders in client organisations; and officials representing funding agencies. The course is especially suited to those who have a direct responsibility for the development, administration or management of an organisation's EoT function.

COURSE STRUCTURE

The development of roles, responsibilities, systems, procedures and the use of appropriate techniques are essential features of EoT activities. This requires a general understanding of the systematic approach to training, and how EoT is linked to Training Needs Analysis, the Design of Training and its Implementation. The course has three distinct features, each helping participants to develop their skills and understanding of EoT:

1. **Distance Learning.** This provides a general background to issues which will be faced when carrying out EoT activities.
2. **Workshop.** Run over a period of five days, where participants can develop an understanding of their role and responsibilities, also EoT systems and procedures requiring development. During the workshop EoT techniques, exercises and a case study will be used to provide learning opportunities, and a basis for self-assessment.
3. **EoT Project.** On completion of the workshop, each participant will undertake a personal EoT project with a suitable client organisation. This will be carried out over a period of three weeks and a report submitted for assessment.

COURSE STYLE

The EoT Course is intended to help participants develop their competency to carry out EoT tasks, commensurate to their role, responsibilities and status in their respective organisations. This is not a 'taught' course. Rather, it is a series of practical learning activities - usually simulated by using exercises and case studies. Participants are therefore expected to take active responsibility both for their own learning and contributing to group activities.

Distance Learning The purpose of the Distance Learning is to introduce the concept of EoT, in relation to the Systematic Approach to Training. The material also outlines issues they will face when carrying out EoT assignments. The expectation is for participants to have studied the material, completed assigned tasks and being prepared to contribute to workshop activities.

Workshop As the workshop is based on an intensive series of team activities, it requires full-time commitment, including some evening study. We therefore assume course participants will be either residential or within easy commuting distance.

Project On completion of the workshop participants will be required to complete an agreed EoT project for submission and assessment by course tutors. Participants who satisfactorily complete their project will be awarded a certificate of competence, recognised by the Department of Personnel and Training.

OBJECTIVES

At the end of distance learning participants are expected to:

1. Define the Evaluation of Training (EoT).
2. Describe potential benefits to be obtained from EoT.
3. Define internal external validation and their contribution to EoT.
4. Describe performance and resource parameters influencing EoT.
5. List factors influencing the achievement of a desired standard of performance.
6. Contrast 'effective' and 'efficient' training, in relation to EoT.

At the end of the workshop participants will be able to:

7. Describe current approaches to EoT.
8. Describe concepts of EoT suggested by Easterby-Smith, Hamblin and Kirkpatrick.
9. Apply EoT models to a typical training function.
10. Resolve issues influencing EoT for a particular training programme.
11. Apply the EoT matrix to a particular training programme.
12. Select EoT to achieve specific purposes.
13. Carry out a role analysis for an organisation's EoT function.
14. Review their own training and development function.
15. Analyse their own role in EoT.
16. Agree an EoT project proposal for completion following the workshop.

At the end of their EoT project participants are expected to:

17. Complete an EoT project in a selected area of training activity.
18. Prepare a report to management on their findings and recommendations.
19. Submit a written report of their project for assessment.
20. Be certificated by DoPT to carry out EoT projects.

TIMETABLE FOR THE WORKSHOP

The Workshop is run over a period of five working days, starting at 10.00 on Monday and concluding at noon on Friday.

Participants, working as members of teams, should expect evening activities. The following is an indication of how we allocate the time, although may be adjusted to suit a particular course.

WEEK 1	CONTENT
Monday	Personal / Course introductions Objective test Review distance learning Learning log EoT Matrix Immediate Reactions - evening team task
Tuesday	Progress review - oral test Review evening task Case Study - introduction - proposal (ECDL/ICDL) - apply matrix - issues EoT matrix and tools - evening team task
Wednesday	EoT matrix and tools - task review Learning logs review Case Study - intray introduction - intray tasks in teams - intray answer assessment - evening team task assessment criteria
Thursday	Case Study - individual intray exercise - role analysis - review Personal role analysis Project proposal briefing
Friday	Project proposal tutorials Course review Valediction

PROJECT

Distance learning, followed by the workshop gives participants an opportunity to develop skills and understanding of the process and techniques used for carrying out EoT. The project is intended to continue this development and to confirm their competence. They are required to carry out a practical EoT project of benefit to their institution or organisation. The choice of a suitable project is left to participants and their management to decide, although it should be concerned with a genuine area of training where an evaluation is desirable.

The course tutor will require the following details of the proposed project:

- Name of participant.
- Client organisation where the EoT will be carried out.
- Issues likely to be encountered
- A brief description of how the completion of the project will be of benefit to both the client organisation and the associated training institution.

Please note that the final date for accepting the project will be agreed with the tutor. Participants who complete their project successfully will be 'EoT Certificated' by the Department of Personnel and Training.

Assessment of the project will be based on the Project Assessment Form. This gives the criteria to be used for assessment, although we will give emphasis to the imaginative application of these features, as we do not intend them to impose a rigid set of rules. The criterion score for an acceptable project is 70%.

If a project is not up to the required standard, we will refer it. Tutors will give participants advice about how they can improve their project with an invitation to resubmit it. Please note that the course provision allows for one referral, only.

Welcome to the Evaluation of Training (EoT) Course

We believe that the **EoT Course**, for which you are to be a participant, offers an interesting and challenging experience. EoT deals with a vital, but often ignored aspect of training - for example:

- How can we show that training is a worthwhile investment?
- Why is the evaluation of training important?
- How can the quality of training be improved?
- Who should contribute to EoT?

The EoT course will give you interesting opportunities to seek answers to these questions, and many other issues that should concern both trainers and non-trainers. Our main concern is the use of training to help organisations in the Indian public services improve performance. During the course you'll experience 'learning by doing' - getting involved with a variety of practical, challenging activities. These are likely to occur during the forthcoming workshop and during your project, which forms the final part of the EoT Course.

Briefing for Studying the Distance Learning

It is important to note that only a limited amount of time is available during the workshop - time that we believe is best spent on active learning experiences, rather than using passive, lecture-based, methods. Therefore, as part of your preparation for the EoT workshop, we would like you to complete the Distance Learning materials provided - documents eot-dlm-1 and eot-dlm-2. This material provides underpinning knowledge for use during the workshop. It is therefore expected that before attending the workshop you will have studied the material, and completed the following learning tasks.

Distance Learning Tasks

To use the underpinning knowledge in your local context we would like you to address the following questions. You may need to ask others in your place of work what their views are to get rounded answers.

1. What evaluation is currently carried out for training programmes/courses?
2. What are the purposes for carrying out evaluation activities?
3. Who is responsible for deciding what measures to use, using them and analysing results?
4. What is done with the information collected?
5. What values influence the approach to evaluation adopted in your organisation?
6. Who can benefit from investing more in EoT?

You will be invited to share your views about these questions on the first day of the workshop. In addition, on the first day of the workshop there will be a test of your recall of the distance learning materials for formative assessment purposes. There will be no pass or fail but the information will be used to provide feedback.

Evaluation of Training

Distance Learning Part 1: Introduction to EoT

Organisations in the public sector and funding agencies, such as the DoPT, use considerable resources to enable people to learn. There are a variety of reasons and motives for this, and it is likely to increase as new employees, technologies or working practices are introduced.

For progressive organisations, learning is considered an investment where, typically, 2-4% of a payroll is invested in training and development. Success for this investment is usually achieved by having a clearly defined policy, with an effective training function for its implementation. As with most forms of investment, the intention is to obtain benefit, both for the organisation and for its employees. Unfortunately, the management of some organisations see training simply as a cost. They fail to recognise the time and money being wasted by people engaged in ineffective learning. Management are usually well aware of the consequence's poor performance, but do not always accept the link between this and having a well-managed, effective training function.

You might be fortunate to work for an organisation that sees benefit in investing in training and development. Alternatively, and less fortunately, you could be working for an organisation that needs convincing that training is a worthwhile investment. In either case, evaluation of training (EoT) will be an essential part of your work: it may also to be your responsibility.

There are different incentives to evaluating training, according to who is doing it and for what purpose. Trainers may face a conflict of interest in that evaluation of training may be a good way of demonstrating success. However, when the results of evaluation are less than satisfactory, it can provoke defensive criticism of the accuracy of the information being used, its relevance or to the adequacy of resources. Generally, trainers may have little incentive to evaluate training unless they also benefit from the process. EoT should therefore take into account incentives for:

- **Funding agencies**, who provide financial support and access to an increasing variety of resources. Here, the incentives for evaluation are to **monitor** implementation of government policy and to obtain information confirming effective use of available resources.
- **Training Institutions** use a major proportion of available funding to provide professional services to client organisations within the public sector. The existence and continuing development of a training institute, and therefore the incentive for evaluation, depends on being able to **prove** that resources are being used to the satisfaction of their clients.
- **Client Organisations**, whose performance is a primary concern of government, and the focal point for evaluation. However, unless there is a valid reason for Heads of Department's and stakeholders to **improve** efficiency, quality or services to customers and beneficiaries, then there's no reason to expect them to do so.
- **People**. An organisation is '*an organised body of people with a particular purpose, such as a business or government department*'. Therefore, training within a client organisation depends on people **learning** - and being able to evaluate both its process and outcomes.

The Government of India, along with other funding agencies, spend a great deal of money on training. It is mostly done through an extensive network of institutional training institutes, which serve national, state and departmental training needs. With the current emphasis on 'value for money', questions to be answered are therefore about whether such spending can be regarded as a good investment. If such questions are important - requiring an answer, then the issue is being able to show how investment in training benefits Indian public services, and the people for whom these services are provided.

When referring to 'training' we are not concerning ourselves solely with courses being run at training institutes: that is a simplistic and wholly inadequate view of the concept to which investment can be directed. With the introduction of distance learning and the policy of 'training for all', there is an immense potential to widen the concept and scope of training to realise far greater benefits from this investment. However, good investment practice requires trainers to be able to account for money spent and other resources used. By using EoT, you can justify investment and promote the use of training to

improve performance. If you can't show evidence of the benefits of training, why should the government continue to support it?

Definition of Training

A planned process to modify attitude, knowledge or skill behaviour through learning experience to achieve effective performance in an activity or range of activities. Its purpose, in the work situation, is to develop the abilities of the individual and to satisfy the current and future manpower needs of the organisation.

A great deal of money can be spent on training, but this doesn't necessarily mean that it has been invested in the 'planned process', referred to in the above definition. For example, spending money building a training centre results in having a building, called a training centre: more money can be spent developing hostel facilities, or providing transport. Is this truly an investment in a planned process to improve performance?

Definition of Investment

The thing worth buying because it may be profitable or useful in the future.

Although this is how the Oxford English Dictionary defines investment, perhaps we should link the two definitions given so that we have a clear concept of an investment in training. It's also worth remembering that our investors are not trainers, and they may have other equally appealing opportunities to spend their money. Another factor, especially at times of economic recession, is that investors are likely to seek evidence to justify their investment. Instead of being impressed by a tour of a training centre and seeing courses being run, they may adapt our definition of training to ask what might be difficult questions to answer. For example, based on the definition of training, above:

- What *planned process* has been used to ensure that the right people are attending **your** courses?
- How do **your** courses *modify behaviour, attitude, knowledge, or skill* - and how is this measured?
- How do **you** assess a *learning experience*, is it during the process of learning or as an outcome after attending a course?
- What evidence is available to show that people who attended **your** course can *achieve effective performance, or at least show a significant improvement*?
- How do **your** courses help *to satisfy the current and future manpower needs* - of a public service organisation?

Notice the reference to '**you**' and '**your**' - because it's you who spent the investor's money. You planned the process, helped people to learn and achieve effective performance. If you, or your director, or colleagues can't answer these questions, can you claim the courses are a good investment? Might they be a waste of money? When trainers are competent and highly motivated professionally, it is in their interests to be able to answer such questions. These are trainers who investors are keen to support, because they are confident that money they invest will result in worthwhile benefits. However, investors are not just from funding agencies, and money is not the only form of investment. For example:

- People, who are willing to be trained, are prepared to invest their time and effort in relevant learning experiences. That is, they will do so - if they regard their investment to be of benefit to them, personally. If not, why should they bother wasting their time and personal inconvenience to attend a course that is of no value to them?

- Heads of departments, who are willing to contribute time, resources and support for a planned process of training to help improve performance. They will do so, if they believe their investment in training results in measurable organisational benefits. If not, what is the justification for sending key members of staff to attend courses that are of no benefit to the department, nor to the people being sent.

Rather than using the term ‘investment’ - implying a thing worth buying - let’s use ‘evaluation’, to give more emphasis to valuing what is being bought.

Definition of Evaluation of Training

The Oxford English Dictionary defines to ‘evaluate’ as: *form an idea of the amount, number, or value of; assess*. A more detailed definition used for the Evaluation of Training (EoT) is:

The assessment of the total value of a training system, training course, or programme, in social as well as financial terms. Evaluation differs from validation in that it attempts to assess the overall value of the course or programme, and not just the achievement of its laid-down objectives. The term is also used in the general judgmental sense of the continuous monitoring of a programme or of the training function as a whole.

Therefore, to evaluate training we have to form ideas to quantify and value a training process intended to achieve effective performance. However, who is ‘we’? Forming ideas can be done by anybody associated with training - for example: trainees, trainers, directors, managers, HoD’s, funding agencies and beneficiaries. In addition, considering the number of people to whom we have referred, there are likely to be many different ideas about the value of training. There will be some that are favourable and others that are critical - without necessarily being based on factual evidence. As a trainer, you are likely to encounter clients, stakeholders and funding agencies with a variety of ideas and opinions about the value of training - ranging from:

Enthusiasm - believes that training is the key to a successful career.

Supportive - keen to use training as a means to improve performance.

Critical - has had some poor training experiences.

Negative - sees training as a holiday, or a waste of time.

Indifference - does not attempt to value training and takes no positive initiatives.

By evaluating training ourselves, and encouraging others to do so, we can help people to value it as a worthwhile activity and one worth supporting. Rational opinions about training should be based on factual evidence about the process and outcomes of helping people and organisations to improve performance. If we, as training professionals, do not provide this evidence then we should not be surprised that people hold a variety of opinions. Also, bear in mind that some of these people will be senior officials, or funding agencies, with significant influence over investment policy.

BENEFITS OF EVALUATION

A survey reported that 80% of 450 organisations studied carry out only superficial evaluation of training. Often it is limited to ‘*post-course questionnaires inviting trainees to comment on the course tutor, overhead slides and lunch*’. As a result, most of these organisations do not know whether their investment in training is justified. However, according to the survey, the situation is changing due to a drive for improved business efficiency by senior management. This is resulting in moving towards more systematic evaluation of training.

The report lists the following benefits to be gained from evaluation:

- A better link between training and business strategy
- Improvement in training methods
- Better guidance on future training needs
- More credibility for training function
- Better able to prioritise training activities
- Improvement in trainers
- Better service to customers
- More senior management commitment to training
- Better control of training costs
- Improved staff morale
- Improved external credibility for organisation

As a trainer, you might become involved in the evaluation of your organisation's investment in training. This will require you to have the systems to answer three basic questions:

1. Is the quality of training available your client organisation(s) satisfactory?
2. Does the provision of training result in improved performance?
3. Can your client organisation's investment in training be justified?

The sequence of these questions is important, because your answer to the first question inevitably influences the answer to the next one. The questions are also closed requiring you, at least initially, to answer 'Yes' or 'No'. If you were to answer yes, then the next question could be 'How can you prove it'; if your answer is no, then the next question would be 'Where are the problems - and what are you doing about them?'

KEY TERMS

To answer the three questions posed above, you will need to have a system developed around the following definitions:

Internal Validation

'A series of tests and assessments designed to ascertain whether a training programme has achieved the behavioural objectives specified'.

External Validation

'A series of tests and assessments designed to ascertain whether the behavioural objectives of an internally valid training programme were realistically based on an accurate initial identification of training needs in relation to the criteria of effectiveness adopted by the organisation'.

Evaluation of Training

'The assessment of the total value of a training system, training course or programme in social as well as financial terms. Evaluation differs from validation in that it attempts to assess the overall cost benefit of the course or programme, and not just the achievement of its laid-down objectives. The term is also used in the general judgmental sense of the continuous monitoring of a programme or of the training function as a whole'.

We illustrate the relationship between these three terms in Figure 1, below. It is essential to note that systems you develop for evaluating training need to incorporate procedures about the validity of training. This establishes the basis evaluating both training activities, and the training function as a whole.

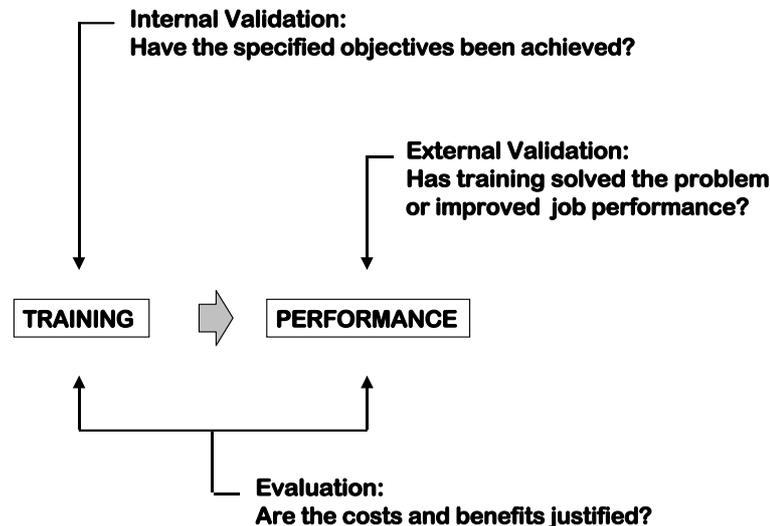


Fig.1

As an experienced trainer, you can assess whether people achieved the objectives specified - in other words, you will arrange to carry out *internal validation*. The results of this process will be to give you information about the quality of training being provided. This will enable you to plan further training, or make improvements to the training being provided.

Reasons for doing *internal validation* include it:

- Provides trainers with feedback about the training they provide
- Checks whether trainees have achieved the specified objectives
- Enables the quality of training to be monitored
- Indicates where the effectiveness of training can be improved
- Indicates where training can be more efficiently delivered
- Provides the basis for certification

Now consider the people you have trained, where they have achieved the objectives specified - based on the identification of their training needs. They will now return to their jobs and a process of *external validation* will now be used to ascertain whether they are now able to perform to a satisfactory standard. This process is likely to be done by the people concerned and their management.

Reasons for doing *external validation* include:

- Involving departmental management and stakeholders
- Focussing on actual performance
- Relating to identified training needs
- Establishing the basis for the transfer of learning from a course to job performance
- Indicating validity of specified training objectives

- Giving
- Essential data for cost benefit analysis
- Proving the benefits being obtained from training

Having completed the training and established its validity, both internally and externally, the organisation may now decide to evaluate their investment. This might be done by senior management, funding agencies, clients and stakeholders, or by customers or beneficiaries. Each will use what they consider appropriate criteria and it could be done with or without your involvement or knowledge. While doing this evaluation, it is likely that the results will also be used to evaluate the training function, as a whole.

Reasons for doing an *evaluation of training* include it:

- Recognises the importance of satisfying the needs of clients
- Provides justification for the investment in training
- Establishes the benefits of having a training function
- Encourages management to make further investment in training
- Enables training to be valued from different perspectives
- Includes cost benefit analysis
- Provides professional discipline for training management
- Encourages careful scrutiny of training proposals

CONTEXT FOR EVALUATION

One extreme for evaluation of training is that it's a random affair, using personal value judgements and without factual information. The other extreme is for every facet of training is measured, and the facts used to evaluate investment. Neither of these extremes offers a tenable basis for EoT.

1. Doing no evaluation may suggest that training is an act of faith that shouldn't be judged in materialistic terms. Politicians and senior officials would not wish to say 'no' when asked if they believed in training the workforce.
2. Why waste time doing something nobody has asked to be done? Most trainers are happier helping people to learn and develop, rather than attempting to validate what they and their trainees accomplish.
3. Training institutions may be asked to justify themselves by their 'output' - the number of people trained, instead of the 'outcome' - what has been accomplished about improved performance.
4. EoT may discover things we don't really want to know - lift the wrong stone and a scorpion might bite you. Some trainers, and training institutions are classified as 'passive providers', because they are content to offer a recurring menu of courses. They may seek feedback on their performance, but not on its performance-related outcome.
5. People may feel offended when accused of knowing the cost of everything and the value of nothing. Therefore, attempting to strike a sensible balance between seeking the costs of training and establishing value or benefit is likely to prove difficult.
6. Obtaining information about the costs and benefits of training is the start of a process of improving both the effectiveness of training and the efficiency with which it can be delivered. Therefore, EoT leads to decision-making about investment, strategy, quality, utility and professional development.

7. Perhaps a justifiable reason for not doing EoT is the absence of TNA. Without details of performance problems and training needs, it is unlikely that you'll be able to link training to organisational performance.

Although EoT can be an uncomfortable experience, it is an essential feature of the systematic approach to training. It enables trainers to justify their existence and the professional services they offer. It is also psychologically rewarding to know that you are helping people to learn, organisations to prosper, and beneficiaries to benefit. Questions for you to deal with concern:

- What system and procedures should be used?
- Which techniques and tools are suitable?
- Who are the stakeholders?
- What should be done with the information obtained?

Inevitably, you will experience difficulties when evaluating training. Some difficulties can be attributed to common factors, which can be dealt with by management action and further development of institutionalised systems. Other factors are perhaps unique to your role and your organisation. Some of these factors can be regarded a 'self-imposed' - difficulties you can tackle personally - or they are 'externally-imposed', requiring action by others. Here, we will consider a selection of common factors that create difficulties for trainers when evaluating training.

Timescale

If evaluation of the benefits of training is to take place at the level of job performance or above, it cannot be done immediately after the training has taken place. Sufficient time needs to be allowed for the changes to take effect. There is a conflict between, on the one hand, the need to allow time for the effects of training to become apparent, and on the other, for evaluation to take place as soon as possible after training to minimize the effects of contaminating factors on the results.

Contamination

Contamination refers to the effect of factors other than training on the outcomes achieved. From the training evaluator's point of view, these other factors contaminate the results of evaluation. We must be careful not to assume that any improvement occurring after training is the result of training or, alternatively, that a failure to improve after training is conclusive evidence that the training was wrongly designed or delivered. We need to be aware of other factors, which may have a positive or negative effect on the results of training. The results of this evaluation could be contaminated by:

- Changes in business objectives.
- Changes in technologies and systems.
- Leadership style of managers.
- Changes in work methods or culture.
- Conflict between implementation of training and non-training initiatives.

Other potential contaminating factors can be: work group pressures, the demands of clients and the self-motivation of the individual trainees. Although contaminating factors create problems and difficulties in evaluation, they may be important in producing desirable results for the organisation. It is often essential that management, when faced with a problem, does not select one solution - such as training. Instead, several solutions, or interventions may be implemented simultaneously. For example, to improve the effectiveness of supervision, the following approaches might be chosen:

- Provide training for supervisors
- Review selection criteria and procedures
- Increase the number of meetings between supervisors and their managers
- Review the content and priority areas of supervisory jobs
- Increase delegation to the supervisors.

In this example, we see training in its proper context as an integral part of management in the organisation, not as a separate activity on its own. Nevertheless, we should take account of contamination, although in many situations we need to learn to live with it rather than try to eliminate it.

Management Support

If you are to persuade senior officers and stakeholders to give you their full support, you will need to work closely with them. This is because setting up procedures for validation and evaluation requires more than their consent for you to take action. You will rely on them to dedicate time and effort to:

- Provide you with the resources needed to undertake an EoT strategy.
- Provide you with criteria to judge the corporate effectiveness of training.
- Agree with you the levels at which evaluation will take place.
- Arrange for the performance data, which you will need as the basis for the evaluation.
- Discuss and agree action to be taken in response to the findings of evaluation.
- Arrange the provision of regular information and constructive views when their trainees' post-training results are being followed up.
- Integrate evaluation measures with other personnel systems within the organisation, such as appraisals, performance-based awards, management by objectives and so on.

An important part of working with management is the ability to explain your proposed course of action in a positive manner, responding creatively to any objections. In explaining how you would like to proceed in evaluating training, you will need to think of possible objections and of ways in which these can be countered.

1. Here you should point out the importance of a timescale. The effects of training do not become apparent immediately after it is completed. If we are to evaluate changes resulting from training at the levels of job performance or the operation of a department, we cannot do so immediately after training. We need to allow sufficient time for the changes to take effect.
2. You should explain to management about the nature of competence and skills. It is vitally important to evaluate competence in using skills required in the job, as distinct from simply having knowledge. When these skills are productive rather than reproductive, a large element of subjective judgement of the trainee's competence is involved.
3. The issue here is contamination. In measuring the effects of training, we must be careful to measure things, which can properly be attributed to training and not to other factors. Many other possible influences could affect job performance, positively or negatively.

PERFORMANCE v RESOURCES

Figure 2 shows two axes illustrating two factors critical to the evaluation of training. As mentioned in the definition, effective performance - shown on the vertical axis - is the expected outcome of the training process: we are using the horizontal axis to show investment of appropriate resources. Let's consider these factors separately, also in the context of training in the public sector.



Fig. 2

PERFORMANCE PARAMETERS

Training Needs Analysis

The government is seeking to improve performance across organisations in the public sector - from higher agricultural yields, to increased traffic on the railways, to improved primary health services, better tea quality. These are just a few general examples; no doubt, you could provide more that are specific to your organisation. Training Needs Analysis provides the link between organisational performance and training - TNA consultancies are based on three key factors that affects performance - 'environmental factors'; 'motivational factors'; and 'behavioural factors'.

As trainers, we can only help organisations in the third of these factors - helping people to develop knowledge and skills relevant to their needs. However, there's no doubt that the other two factors are important when seeking to improve performance. You may therefore have a situation where, having provided effective training, no improvement in performance is achieved - due to flaws in the working environment, or poor motivation by the people concerned. The risk is that such failures are attributed to poor training. This is especially so if you have no evidence to show that the people trained acquired relevant knowledge and skills, but were unable to use them because of other factors. Although we are concerned here with EoT, it will be more effective if done in collaboration with TNA.

Standards

Although we have used the term 'performance', it has little meaning unless it is closely associated with standards. These provide criteria to judge either the process or the product of a person's performance, or that of an organisation as a whole - without them it is difficult to achieve, or to measure effective performance. A typical performance standard that can be used for training purposes provides the following information:

Performance Objective What a person is doing in clear, unambiguous terms that feature one activity-related verb.

Performance Criteria Significant features of a person's performance that determines their competence.

It is important that the performance standards agreed are realistic and achievable and, having agreed them, **assessment measures** can be agreed with a client and stakeholders. These specify the tools or techniques used to measure a person's performance. TNA will often highlight the lack of clear standards where failure to have them may be a major cause of poor performance. For effective evaluation it is also essential to establish performance criteria to provide the basis for suitable measures of assessment

RESOURCE PARAMETERS

Referring to Figure 2, the other axis is labelled 'resources' to indicate financial and other resource investment implications needed to implement training. As the government moves towards a policy of 'value for money', far greater emphasis will be given to justifying this. An emerging feature of evaluation is likely to be for departments and funding agencies to closely examine resource implications required to support training proposals, and the outcomes expected from institutional course provision. In addition, as distance and open learning is introduced, funding allocation could be diverted from training institutes towards departmental training functions. Consider some resource implications that are likely to be taken into account:

Costs

These could be institutional costs required to run a course, or a breakdown of the costs of running a training institute. Evaluation is likely to examine costs per course participant - with the implications that such costs should be justified and perhaps reduced. With the increasing use of generic training packages, it will be possible to introduce standardised costs for national calendar courses - with these costs linked to EoT.

Time

Absence from the workplace to attend training courses costs money and possibly reduces operational effectiveness while staff are away. Can this be justified? Time for training and development has the potential to provide real benefits, but only if it is invested wisely - taking into account both the needs of the individual and those of the employing organisation.

Facilities

The main commitments are the provision of training institutions. At present these absorb most funding support, although this may change following the introduction of distance and open learning, also with the government's policy of providing 'training for all'. An evaluation of institutional facilities is likely to focus on indirect costs of running them, and the utilisation made of them. Most public sector training institutions feature large modern buildings on valuable sites. Considerable infrastructure resources are needed to provide training facilities - administration, amortization, hostels, transport, maintenance, staff quarters, etc. These are mostly fixed costs that have to be balanced against their professional use.

As with hotel bedrooms, unless training rooms have a high level of occupancy it becomes difficult to justify their continuing availability - or indeed the existence of an institution. The comparison with hotels is of relevance because if bedroom occupancy levels fall much below 60%, management is likely to be changed, leading to closure if utilisation cannot be improved. We have chosen hotels as an illustration because many hotels now offer training facilities on a commercial basis. So, as part of evaluation of facilities, consideration might be given to using commercial facilities, as an alternative venue for certain courses.

Faculty

If a training institution has only one member of faculty, then its capability is limited, irrespective of other resources that are available. However, if a training institution has several tutors, then it has greater potential to run courses and offer other professional services. A legitimate and important area for evaluation therefore concerns the utilisation of available training personnel. This could focus on the hours a tutor spends running courses - 'contact time', or their deployment to provide professional services for client organisations. These services may include carrying out TNA consultancies, developing training materials - or evaluating training.

Figure 3, below, builds on our consideration of the basic axis, showing a **desired standard of performance** and a lower level of performance as a consequence of **no training**. EoT should examine both issues.

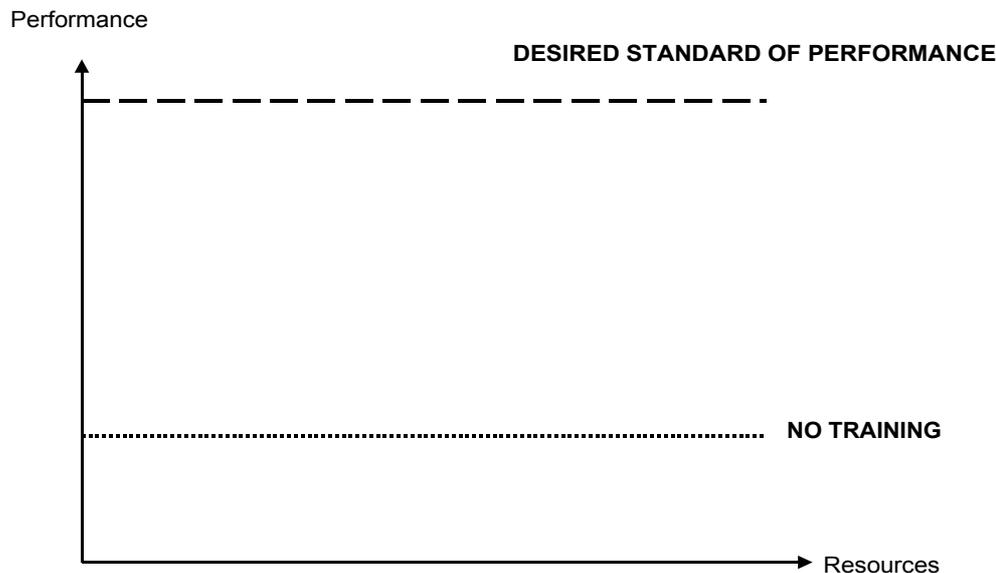


Fig.3

DESIRED STANDARD OF PERFORMANCE

An apposite point to make is that if you don't know where you are going how do you know you've got there. Consider an example faced by trainers involved in Information Technology. A training institution has 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. Although such courses may meet a genuine need, a wider concern, for EoT, would be evidence of specific training needs, and a design brief that includes agreed standards of performance.

Another factor could be disparity between what is 'desired' by departmental management and what training institutions can achieve. A 5-day course gives only a limited opportunity to learn about IT so, although management and prospective trainees may desire many things, an institute should offer only what can be delivered. The design of training requires careful consideration of constraints that limit what can be achieved - in this instance, a lack of time and the likelihood of differing training needs. A legitimate aim for EoT would be to establish where course participants are 'going', and what evidence is available to show they've got there.

Failure to limit expectations to what can be realistically achieved may lead to a large number of dissatisfied people. Former trainees might complain that the course didn't give them sufficient time or opportunity to learn things of interest to them; client organisations complain of continuing work-related

difficulties. These people's views about the course and training generally will not have been enhanced by their experience, nor are they likely to support further training interventions.

Standards of performance, both related to the outcomes of training and to actual work, are likely to become a major concern in the development of EoT. By implication, the IT illustration exposes potential flaws in a range of training activities, such as: TNA, design, course provision, on-job-training management of training and the responsibilities of funding agencies.

NO TRAINING

Doing nothing could be a decision of management - perhaps reflecting negative opinions about training identified in the introduction. However, although no formal training may have been done, it doesn't necessarily mean that people are not learning. Occasionally, well-run departments of government have adopted the principles of the '*learning organisation*'. This will especially occur when using or developing advanced technologies and associated systems. People can only learn from internal expert resources - which are not likely to be found at a training institution. These are issues worth including in EoT, because informal, effective, training is being done.

Another reason for doing nothing is that resources do not permit training. Despite government policy of 'training for all', some organisations are unable to provide training for subordinate staff. Depending on the opinions of management, this may lead to:

- Low **standards** of performance of individuals, working groups, or an organisation as a whole. This could be caused by management accepting the situation and reducing standards, or because non-training factors block attempts to introduce change.
- Low **levels** of performance, where individuals lack knowledge or skills to improve their performance. Although management may wish to improve standards of performance, they lack the support of a formal training function and access to resources.

A variation on 'no training' could be 'training for some' - implying that, for example, training is mostly limited to gazetted officers. Other factors, such as location, may limit what can be achieved - although with the introduction of distance learning this is no longer necessarily an obstacle.

What may become apparent is that a response of 'no training', when asked about training provision, is likely to lead to more searching questions. Doing no training may at times be a justifiable option, but this justification will need to be explained - perhaps with some difficulty, if levels of performance are low. A crucial aspect of EoT is likely to emerge when consideration is given to:

- Doing **no training** - where no attempt is made to provide formal on-job-training - nor seeking help from training institutions.
- Doing **ineffective training** - whether by failing to organise training on-the-job, or using incompetent people as trainers, or by poor nominations for institutional training.

Perhaps because of resource limitations, or a large number of subordinate staff, or wide geographical spread, doing no training is justified. Also, if organisations do not have a formal training function, they may find it difficult to provide evidence of any training they are doing. Doing ineffective training costs money and uses other resources - but does so without benefit to anybody.

EFFECTIVE TRAINING

Figure 4, below, illustrates two triangles, where one represents **effective training** and the other training that is ineffective - with both using the same resources. The two triangles could represent two courses intended to meet a similar training need.

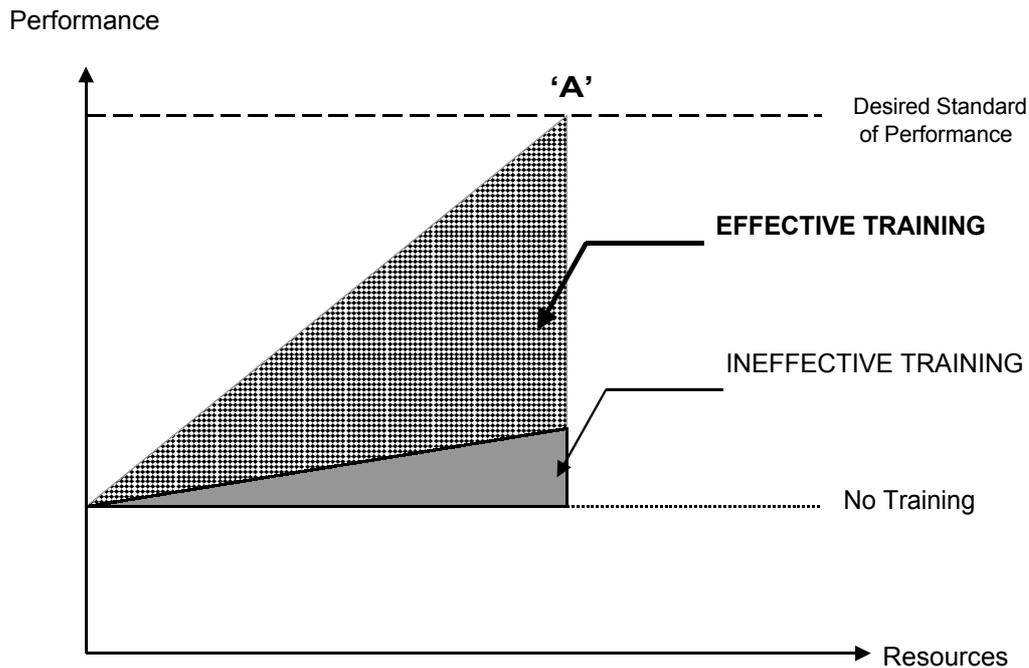


Fig. 4

It's evident that the triangle reaching point 'A' is the one offering greater benefits - bearing in mind that both courses require similar resources. However, in respect to effective training, we can make some general observations about the illustration:

- Unless TNA has been done, we are unlikely to have a clearly defined desired standard of performance. Without this information, and not knowing where a course is going, how can we claim it's effective?
- How were the courses assessed? Should we assume that the same measures were used for both of them? Perhaps, if EoT is used, we can have specified criteria and measuring instruments that will be common to both courses.
- The line drawn to represent 'no training' is too simplistic, as it assumes all course participants are starting with the same entry behaviour. Another approach to assessing the course could be around 'learning gain', where the emphasis is on helping individual participants to improve - without attempting to impose an arbitrary standard.

Nevertheless, if we look at the illustration for a funding agency's point of view, both courses cost the same to run - one was successful in achieving agreed standards and the other wasn't. If EoT has been done, hopefully based on TNA, then the funding agency and training management have factual evidence to decide about further courses. However, if neither TNA nor EoT has been done how can such decisions be made? Let's consider other issues, using our IT training course as an illustration:

- As we've discussed earlier, unless a clearly defined standard of performance has been established it is difficult to establish an outcome. Our IT trainers are unlikely to know the performance problems of each trainee and their needs, in respect to IT. Having been asked to run a 5-day course, they will do their best to do so - but they will be guessing at the desired outcomes.

- Perhaps criteria for nominations for the course were vague, thus attracting people with a wide range of abilities. If so, it's unrealistic to expect trainers to create effective training for all of them.
- Off-the-job training is rarely a complete solution to a training need. Most off-job training has to be supplemented by continuing training on the job. Evaluating the course without including transfer to the work situation will result in a distorted picture that is unfair to all concerned.
- IT training at or near the work place, using computer-based training systems is now readily available. This provides people with an opportunity to learn at a suitable time and pace. So, who decided to locate all of the IT training resources at a training institution? Also, who decided that the course should be of 5 days duration?

It would be easy to continue throwing bricks at an imaginary IT course, especially in the absence of TNA. Nevertheless, it's true that most of the problems mentioned above could be avoided by having analysed both training and non-training needs. Perhaps an essential feature of EoT is that it is based on thorough TNA, as well as learning processes that develop skills and knowledge.

The definition for training refers to a *'planned process... to achieve effective performance'*, which implies that if you want to achieve effectiveness you have to plan for it - something lacking with our IT course. EoT is a feature of this process and we can use it to report on both the process of training and its outcomes. Using a famous golfer's comment that the more he practised the luckier he got; perhaps it's worth pointing out that the more we focus attention on all aspects of the Systematic Approach to Training, the more effective we are likely to get. However, let's consider different perspectives of 'effective training':

Training Institutes

An effective institute might be one that runs a wide range of training courses, using available resources and marketing its services to a wide range of client organisations. Perhaps also it attracts funding from a variety of sources, attracting applications for tutorial appointments from keen, able officers who see institutional tenure as good for their career prospects. Trainees also like to attend courses at such institutes, which are usually fully booked. However, when carrying out EoT - when the focus of attention is on 'process' and *'effective performance ... to satisfy ... the needs of the organisation'* - we may view the situation somewhat differently. For example:

- EoT could be less concerned with the output of the institute - in respect to the number of courses being run, or people trained - and more interested in the **outcome** achieved. If there's no evidence to suggest improved performance, can the claim for institutional effectiveness be justified? In our IT course illustration, although people attend the 5-day course, it may not help them achieve a significant improvement in their performance. When there is compatibility between a high output and proven performance-related outcome, then an institute can truly claim to be effective.
- Stakeholder opinions within a client organisation will influence training effectiveness. For many public sector organisations training is seen as nominating people to attend courses being run at training institutions. The availability of TNA consultancy services should help to change this perspective - yet, in relation to effectiveness, there remains the problem of responsibility for improving job **performance**. Although institutes may run good courses for helping people to learn, ultimately effectiveness lies with client organisations. They have the responsibility to help trainees use their newly acquired knowledge and skills to achieve desired standards of performance. EoT can explore the effectiveness of links between the output of a training institution and the outcome of a training process.

Client Organisations

We are using this term to cover departments of government, public sector undertakings, or working groups employing people from the public services. Each of these organisations is expected to achieve a desired standard of performance, although for many this will be a challenging aspiration rather than reality. For EoT, our concern is to assess and value the effectiveness of training done either within the organisation, or on its behalf by training institutions. Consider some issues this will involve:

- The SAT process places emphasis on work place activities - TNA, coaching, mentoring, assessment, for example. Many organisations do not have a recognised training function, nor the services of a training manager, which results in two options. The first is a decision to ignore training for improving performance, and the second is to rely on a training institution to provide professional services. Of course, a third option would be to establish a training function, but that is outside the remit of EoT.
- As mentioned earlier, off-job training courses should be linked to a process of transfer of learning, so that trainees can apply and further develop their skills under normal working conditions. Unless client organisations prepare for this, and have necessary resources, then achieving a desired level of performance will be difficult. In these situations it would be unfair to lay responsibility on either the training institution or the client organisation.
- TNA consultancies identify both training and non-training needs. This presents three scenarios: in the first an organisation acts on TNA recommendations, tackling both training and non-training needs; in the second they only act on training recommendations; the third is that TNA isn't done and neither is any attempt made to link training to performance. EoT has the potential to ask stakeholders in such organisations to make decisions about training - not attributing blame, but raising issues that need to be addressed.

Funding Agencies

Both government and non-government agencies provide financial support for training. EoT can be used to review their effectiveness in respect to achieving a desired standard of performance, or for them to assess how their funds have been used. In both situations EoT can review the process, outputs and outcomes resulting from funding support. Criteria for assessing institutional or organisational performance have to be agreed, as an initial stage of EoT and then used when appropriate. Taking our IT course as an example, can a training institute be 'blamed' for running the course when they were offered funds to purchase computers and to run 5-day courses? Equally, haven't funding agencies the right, and obligation, to assess the effectiveness of training that results from their funding support?

EFFICIENT TRAINING

You note that Figure 5, below, shows two triangles. These illustrate the relationship between achieving a desired standard of performance against resources used. Both triangles show that the desired standard of performance has been achieved.

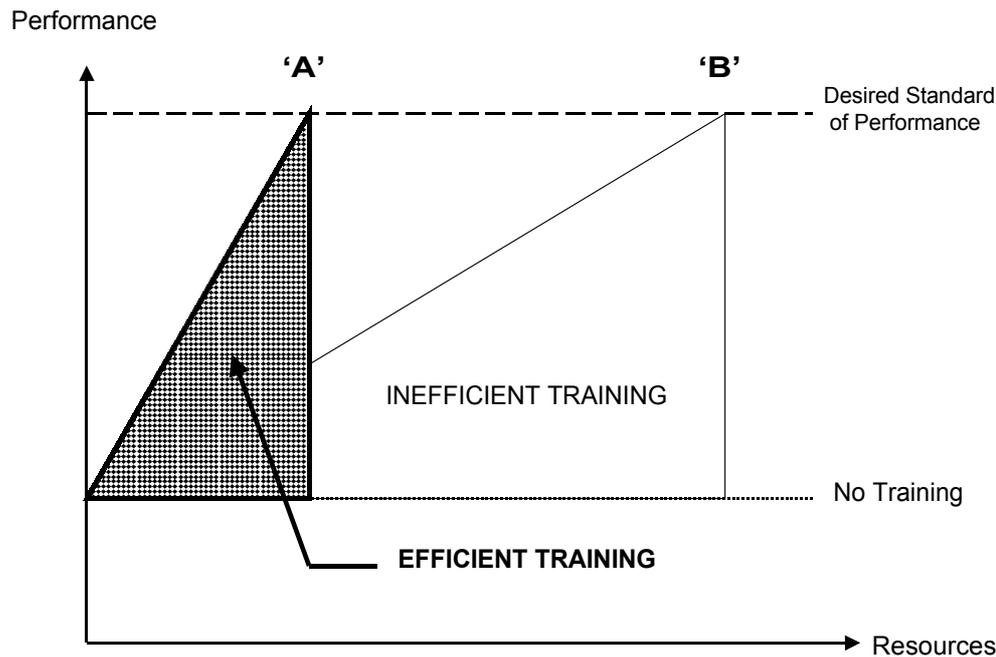


Fig. 5

The difference between them is that 'A' shows performance being achieved using fewer resources than 'B'. Consider some issues this raises - bearing in mind that both 'A' and 'B' are effective:

- To what extent are training resources 'price sensitive'? Is a rigorous examination proposed to ensure 'value for money'? In the IT course, to which we've referred earlier, what process was used to establish valid justification for resource expenditure? Did the training institute concerned already have computer-training resources and, if they had, what was the utilisation rate? These questions could be included in an EoT aimed at improving efficiency - because if resources are spent with 'B', rather than 'A' less funding support is available elsewhere.
- With the government's policy commitment of providing 'training for all' greater attention is likely to be needed to provide effective training for lower cadre workers. This can only be achieved if the training is provided efficiently. It's pointless training twenty people effectively, if there are a thousand with similar training needs. Equally, there's no benefit in training a thousand, if it's ineffective.
- The introduction of distance learning has the potential to improve efficiency. However, it is not enough to have a package that can provide effective training. An efficient system is also needed for its implementation. EoT should therefore be concerned with both effectiveness of the training and efficiency.

At present, it's perhaps unrealistic to expect training to be both **effective** and **efficient** - although it's a desirable aspiration. However, with the introduction of TNA consultancies and the development of EoT, we can develop our functional capabilities to realise the aspiration.

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.

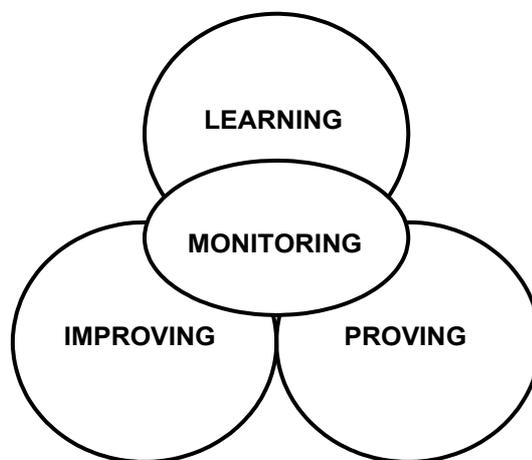
EASTERBY-SMITH MODEL

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

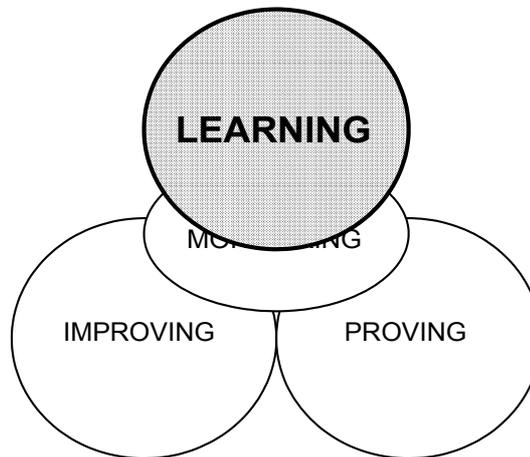


Figure 2

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.

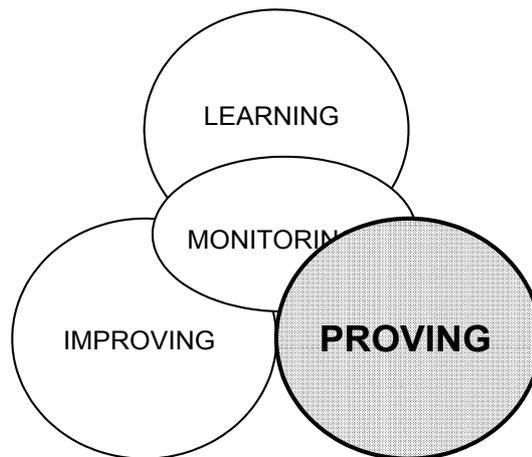


Figure 2

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

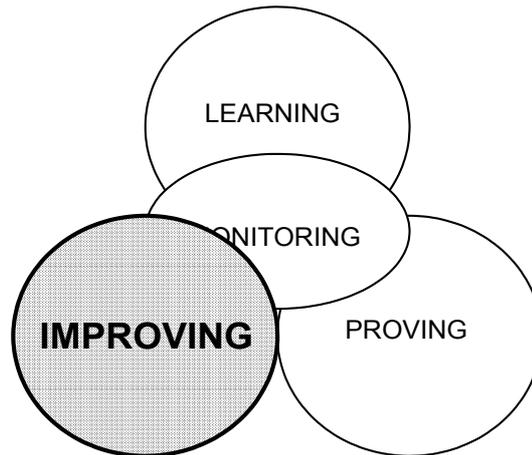


Figure 4

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

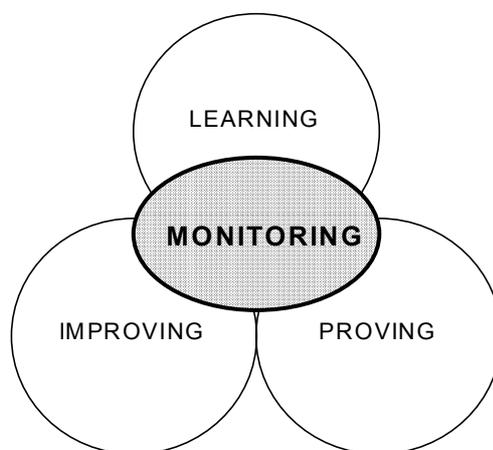


Figure 5

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'.

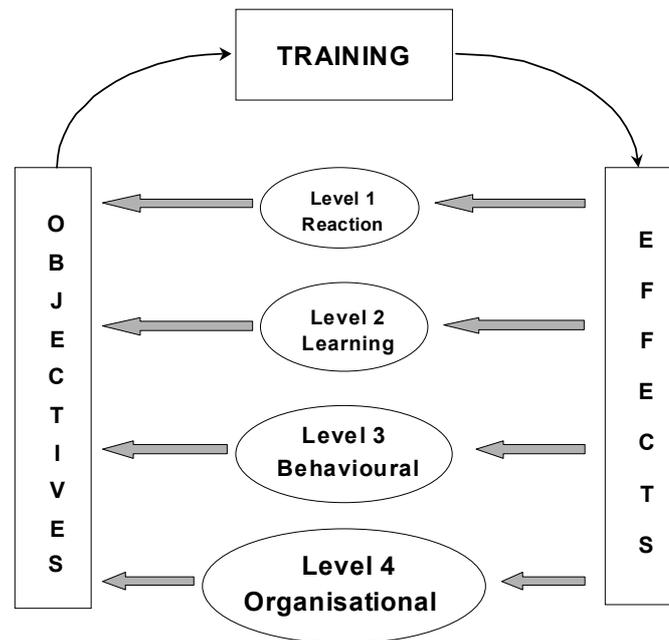


Figure 6

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 as 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.