

INTRODUCTION

In the short to medium term, training in Indian public services is likely to continue using training courses as the principal means of delivering training. At present most of these courses are delivered at training institutions, although with the introduction of 'distance learning' packages a wider provision is both possible and desirable.

The purpose of this paper is to suggest where and how Evaluation of Training can be done. We'll use the EoT Matrix, taking into account the concepts of evaluation proposed by Mark Easterby-Smith, D L Kirkpatrick and A C Hamblin. We will also use a model 'learning curve' to introduce and illustrate aspects of training, with particular reference to evaluating institutionally delivered training courses. The comments we make are unlikely to be definitive - no doubt, from your own experiences, you can suggest additional issues to consider.

We will first describe the use of the EoT Matrix for evaluating courses, and then develop ideas about evaluating a typical course based on a representative learning curve.

EOT MATRIX

The EoT Matrix provides an overall framework within which a variety of evaluation activities can be planned. Each of these is likely to be based on a selection of cells from within the matrix - reflecting the purpose of the evaluation and the level at which information is required. It's worth noting that EoT provides the basis for decision-making, which may involve:

- Trainers, responsible for delivering the course.
- Other, perhaps senior trainers involved in its design, development and validation.
- Trainees, who have attended the course.
- Heads of department and senior officials who approve nominations.
- Stakeholders, such as colleagues, subordinate staff and beneficiaries.
- Funding agencies, who are allocating funds to support course provision.

All of these people are potential stakeholders in EoT, whose views cannot be discounted: all could take decisions that influence the success of training initiatives.

The basic matrix is shown in Fig. 1, below. It shows the four purposes of evaluation, which are based on the Easterby-Smith model; also, the four levels based on Hamblin and Kirkpatrick's models. You will also note that each cell has its unique reference.

When people, such as the ones mentioned above are either planning EoT themselves, or it's being done on their behalf, consideration should be given to selecting appropriate cells in the matrix. Each cell focuses attention on a particular aspect of EoT - linking both the purposes of evaluation with the levels at which it should be done. For example, taking task 3-M, we are concerned with Level 3 Job Performance - what trainees know and can do in relation to their job; we are also taking into account that another purpose is to monitor such training activities. If we were to shift to cell 3-I then our attention focuses on evaluating how the course can be improved, also how the trainee's job performance continues to be developed.

EoT MATRIX	Learning Processes	Proving Learning & Development	Improving L&D Interventions	Monitoring Learning & Development
Level 1 Reaction	1-L	1-P	1-I	1-M
Level 2 Learning Outcomes	2-L	2-P	2-I	2-M
Level 3 Job Performance	3-L	3-P	3-I	3-M
Level 4 Results Achieved	4-L	4-P	4-I	4-M

Fig.1

A variety of 'tools' can be used with cells in the EoT matrix. Some tools will be more useful for certain purposes and for some but not necessarily all levels. Therefore, when planning or accepting an EoT project, you can negotiate which cells will be appropriate and select suitable tools. This is important and should take into account the following factors:

- Who has authorised and is sponsoring EoT.
- Who you are, in relation to the proposed assignment.
- Information required.
- Information available from TNA or a previous EoT.
- Timescale.
- Location of both the course and trainees.
- Resources available to support your EoT activities
- Type of course, or its subject matter being evaluated.
- Values and perceptions of client and stakeholders.
- Extent to which information obtained will be used for decision-making.

EFFECTIVENESS AND EFFICIENCY

In part 1 of the distance learning material, we discussed the importance of evaluating both the effectiveness and efficiency of training. Now, when planning to evaluate training courses, these two factors, illustrated in Fig. 2, have to be taken into account when selecting cells.

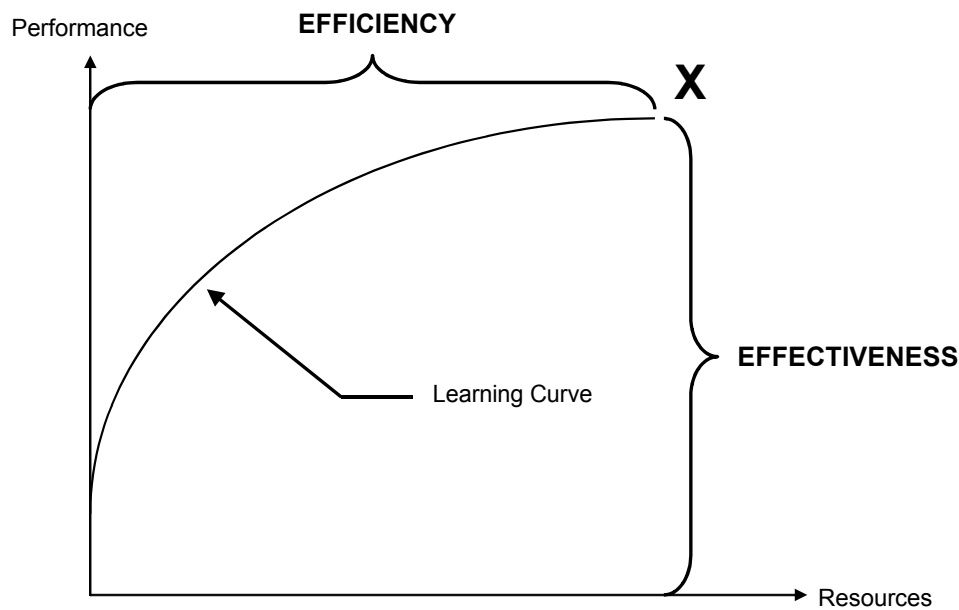


Fig. 2

The ideal course - one that is effective and efficiently delivered, can have an imaginary target denoted by X in Fig.2. Unfortunately, this is a situation to which we can aspire but seldom achieve. Usually, for a variety of reasons, most courses are only partially effective: and efficiency can always be improved. The problem is that we often don't have the information about where improvements are needed. For example:

- If we assume a course is effective, we may decide to increase the number of participants; or shorten the course or run more of them. This decision might be justified if we have information that current courses run with the designed maximum number of participants; or feedback from participants indicates that the course is too long. Such decisions may increase efficiency. We'll can train more people using fewer resources, but what about effectiveness?
- If we seek to improve course effectiveness, then we may need to carry out external validation - to find out whether the course helps people to improve their performance. Alternatively, we may feel that further TNA is required to re-examine the original design brief for the course. In doing so, we could discover non-training factors that limit effective transfer.

Therefore, attempting to introduce change without relevant information is simply making experienced guesses - we need feedback on our performance and relevant data to enable us to make rational decisions, which are acceptable to all concerned. And a well-planned EoT will provide it.

A variety of people, with decision-making responsibilities, may have an interest in either course effectiveness or its efficient delivery. It's not an exaggeration to point out that these people are likely to have a major influence on the success of training in the Indian public service. If investment in training can neither be shown to be effective, nor making efficient use of resources, why continue doing it? For example, consider the decisions being made by three key stakeholders:

1. Heads of department, or senior officers nominating people for courses have a particular interest in the **effectiveness** of a course. If they are keen to support training then they are likely to nominate key members of their staff who can benefit from the proposed training. By doing so they expect the course to be effective, in that it will help to improve the performance of the nominee. If this cannot be proven, why should they continue to lose the services of valued members of staff? Unfortunately, not all HoD's are keen to support training - perhaps with good reasons. Such people may need convincing evidence to change their views. The challenge you face, when planning EoT, is to select cells in the EoT matrix - and appropriate tools - to obtain evidence of effective performance.
2. Directors of training institutions have the responsibility and authority to decide the use of resources under their charge. However, it's not an uncommon situation is to find senior officers appointed to the post of director with little practical experience of institutional training. Nevertheless, with or without such experience, directors are expected to make decisions about course provision. If we assume that all courses are effective, directors have still to ensure that the courses being run make **efficient** use of resources. When planning EoT on behalf of a training institution consideration should be given to including data about trainee numbers, cancellations, facility utilisation and costs, etc. Given this type of information, directors can make rational decisions about courses and the quality of provision: without such information, they still have to make decisions, but not necessarily good ones.
3. Officials with funding agencies have to make decisions about both the **effectiveness** training and the **efficiency** by which resources are used. However, bear in mind that funding agencies, such as the DoPT or UNDP, provide resource support for a wide variety and number of courses. Therefore, the information they require should enable them to monitor course provision, without getting involved with detail. If you are planning EoT on behalf of a funding agency then you should select cells and tools that satisfy the needs of the funding agency and are acceptable to institutions and operational units who will use them. For example, funding officials cannot use hundreds of IRQ's, but they may find a consolidate summary useful. Senior officials, when deciding funding allocation may find the 'benchmarking' tool useful to compare institutional performance.

EVALUATING EXISTING KNOWLEDGE AND SKILLS

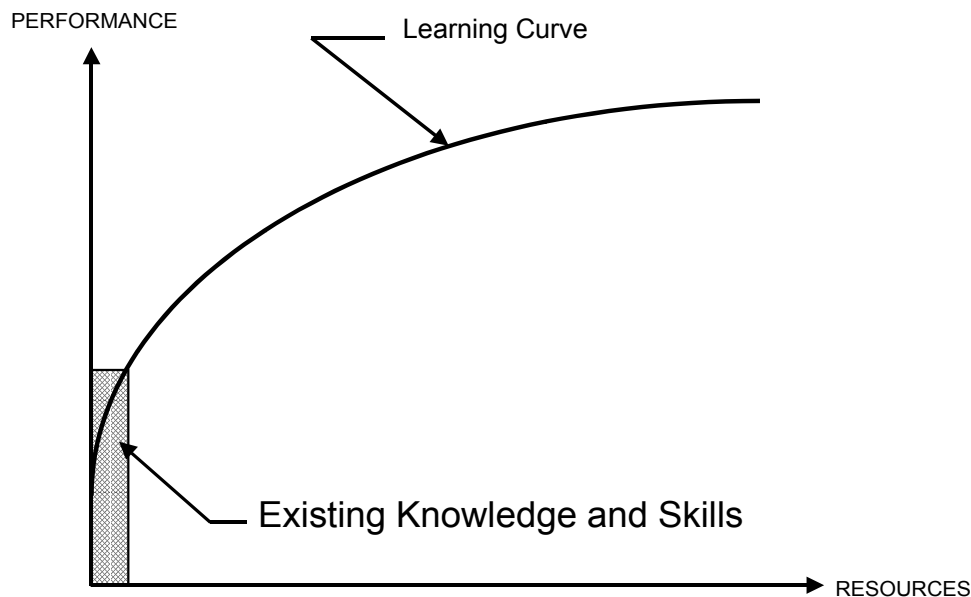


Fig.3

Figure 3 illustrates a model learning curve for a typical, imaginary course - a curve that is unrealistically smooth and progressive. A more typical learning curve for a particular trainee would show an irregular curve, sometimes curving upwards but also downwards as the trainee copes with a variety of learning experiences - some of which would be easy and others frustratingly difficult. The trainee's views about this rate of progress will be a feature of our EoT.

You'll notice that Fig. 3 includes an area called 'Existing Knowledge and Skills'. This is to point out that people do not start their learning without having knowledge, skills and attitudes relevant to what they have to learn - we often call this 'entry behaviour'. Sometimes this can be helpful, as trainees can build on what they already know and can do. However, there are situations where this is unhelpful - where trainees have to 'unlearn' existing knowledge and skills, which are now redundant. This is likely to be a stressful period of learning, especially so if their attitude blocks their willingness to learn.

At this stage in the course perhaps only EoT in cell 1-L can be done. This will provide information about the trainee's reactions to:

- How the course matches their expectations.
- Their motivation to achieve course objectives.
- The extent to which assumed trainee entry behaviour matches what has been assumed.
- Their willingness to being assessed.
- The differences in entry behaviour and the effect this may have on course activities.
- How course providers react to information obtained.

Most courses are designed with assumed entry behaviour. When TNA has been done assumptions are likely to be accurate, but when a course is open to a wide variety of nominated trainees assumptions may prove alarmingly wrong. In such circumstances, EoT, especially cell 1-L should record differences and the information used to review course design and its administration.

EVALUATING COURSE PROVISION

The learning curve shown in Fig.4 now includes an area representing the course, for which you are carrying out EoT. We have already discussed the limited extent to which you can evaluate existing knowledge and skills; now the range of EoT activities can be much wider. The choice is whether you'll carry out a wide, but shallow EoT - or focus your attention, in-depth, on specific aspects of the course. It is unlikely that you'll be able to do both.

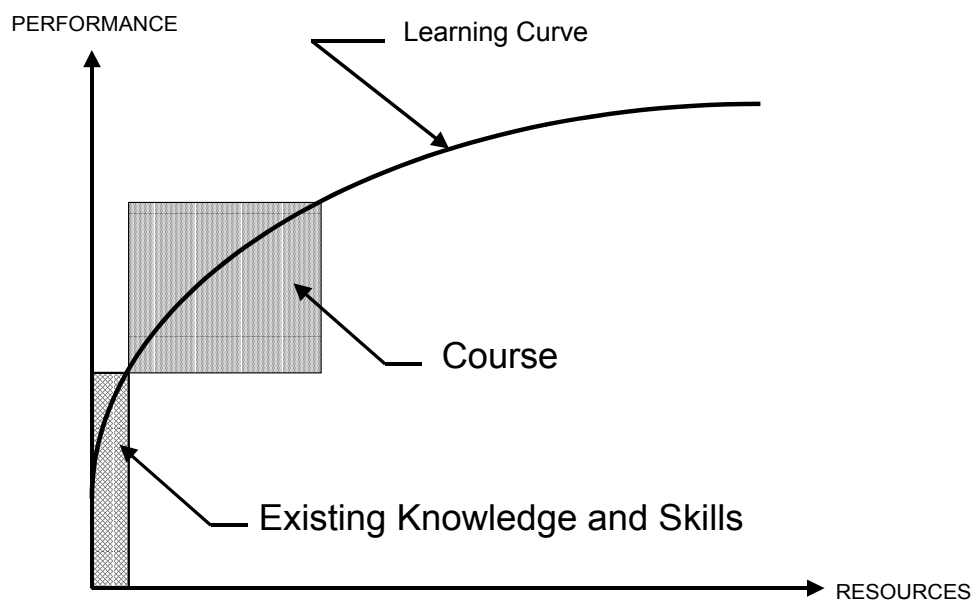


Fig.4

The course should provide opportunities for trainees to participate in structured learning activities and experiences. The learning curve illustrates progress towards the achievement of course objectives. Evaluation should obtain information about the *effectiveness* of the course - achievement of objectives, and *efficiency* - the means and costs by which the course is delivered to meet the number requiring training.

When negotiating an EoT assignment you'll have many factors to consider, and a wide range of options available. The following list of factors is far from exhaustive, but may indicate issues with which you'll have to contend. Perhaps caution during negotiations will help you to accomplish satisfactory evaluation.

- Requirements of those who are authorising EoT.
- Potential externally imposed limitations to what can be accomplished.
- Cultural or political issues that may hamper progress.
- Reactions of those whose collaboration you will need.
- Initial course activities matched assumed entry behaviours.
- Number of people who applied for the course, in relation to the number attending.
- Internal validation measures about the quality and relevance of the training.
- Results of assessment measures used.
- Financial report recording fixed costs, actual expenditure and income.
- Length of the course and the use of available time.
- Trainee views about learning activities - methodologies, skill's practice, relevance, etc....
- Quality and use of training materials - handouts, checklists, visual aids, video, IT, etc....
- Assistance to help trainees to transfer their learning to their job.

However, being realistic, it's impossible to cover all the cells within the EoT matrix. The factors listed above are viewed as potential constraints that limit what you can successfully achieve. Therefore, it's essential to focus attention on those cells that provide the greatest return on investment of your time and available resources. If no TNA has been done, you may feel it's prudent to concentrate on tasks 1-L, 1-P, 2-L and 2-P. These tasks deal with the evaluation of the course itself, moving farther into other purposes and levels risks confronting wider issues - such as lack of TNA.

A potential conflict can occur if, for example, a funding agency commissions an EoT assignment where attention is given to all levels of 'monitoring'. The information obtained could be damaging to course providers, leading to decisions being made on partial information. As part of negotiating terms of reference for an EoT assignment, it may prove helpful to identify all prospective stakeholders and think through possible consequences to your EoT. When TNA has been done, an early introduction of EoT can help to clarify measurable targets and provide a basis for formative feedback.

POST-COURSE EVALUATION

Here, we are concerned with EoT after trainees return to their workplace. The learning curve in Fig.5 illustrates a continued improvement in performance after completing the course, although this may not happen. The concept of 'Transfer of Learning' is dealt within the design course, also external validation - the basis for post-course EoT. But what happens to trainees after they have successfully completed the course?

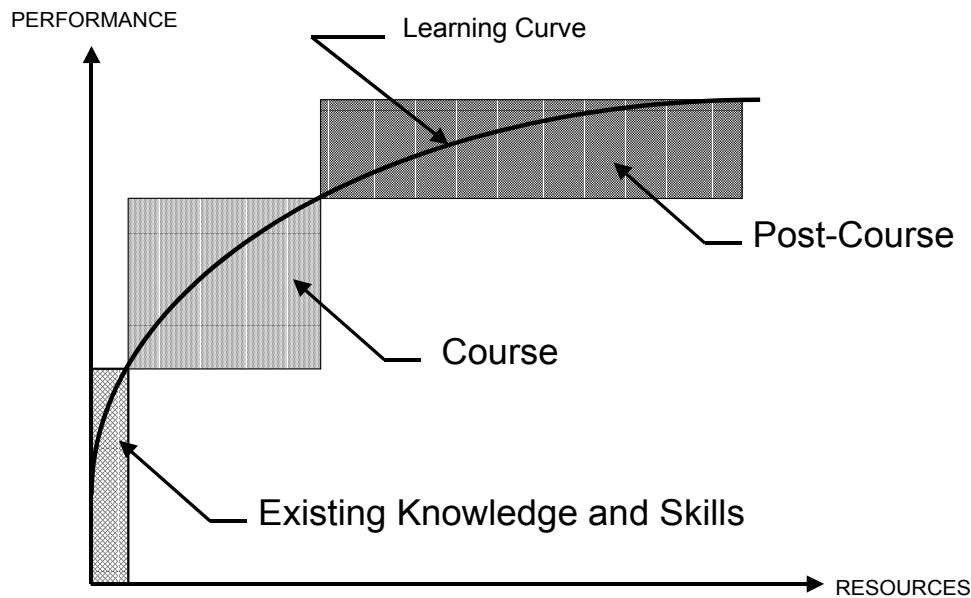


Fig.5

Given that trainees successfully complete the course - with EoT data to confirm this, the issue is whether the outcome of their learning satisfies job requirements. In tackling this, you are heading for a difficult situation, where attitudes and subjective opinions are likely to be encountered.

In the Design of Training course, we draw a distinction between designing a 'course' and planning a 'training programme'. It is here, in this area of EoT that the distinction becomes apparent and a major factor in evaluation. If the course we are considering has been designed simply as a course, there may be little provision for transfer - no structured activities to help trainees to continue their development under normal working conditions. If the course is being run by what are termed '*passive providers*', they may not wish to investigate EoT purposes associated with 'improving' - at levels 3 and 4. Attempting post-course EoT may therefore prove difficult and you may wish to consider answers to the following questions:

- Is the course part of a planned and designed training programme?
- Who were the key stakeholders in deciding to nominate people?
- Are they satisfied with the outcomes achieved?
- Will the course continue to be run, and therefore open to improvement?
- Will key stakeholders continue to nominate people for the course?
- Has TNA been done - and as action been taken on non-training issues?
- Are client organisations and stakeholders willing to cooperate with EoT?
- Who wants the information, and what will they do with it?
- Will you have access to former trainees at their workplace?

Although the above comments may signal a note of despair, we are dealing with perhaps the most important part of EoT - and indeed for training generally. If we cannot show that training results in significant benefits to organisations, employees and beneficiaries, why should funding agencies continue to 'waste' money? If evidence is required to confirm that training is *effective*, in terms of improved performance, and *efficient* in its means of delivery, then we are obliged to accept the necessity of EoT at levels 3 and 4, especially for purposes P, I and M.

Given opportunity, resources and the support of senior management this kind of evaluation can be done. There are potentially immense benefits to be obtained from what is undoubtedly a major professional challenge.