

## MEASURING WORKPLACE LEARNING RESULTS – USING THE KIRKPATRICK MODEL

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*Training at the workplace is commonly accepted as the ready-made solution to organizational problems. It is however, only a solution for problems that can be resolved by training. In this paper, we would consider the ROI of training by taking into account how to design and structure a method of identifying and evidencing the benefits via quality assessment measures which takes into account the drivers (internal and external), and the requirements (operations and customer).*

*The processes basically compare the levels of knowledge, skills, experience and attitude available at the beginning of the programme with those available at the end of such programmes. Types of evidence and the methods used to extract them would also be considered. A case study on a group of sales personnel from a multinational company shall be presented.*

### INTRODUCTION

The concept of Return on Investment (ROI) with its roots in accounting and finance field has slowly begun to be accepted as a concept associated with training and development. Many training and development activities are carried out with a particular aim of enhancing the capacity of the participant or the individual concerned. Such aim is usually substantiated by the need for specific needs, such as customer service, and general needs, such as productivity improvements. In this paper, the link between the activities carried out and the effect on its outcome is examined. The focus would be mainly on assessing the outcome by comparing what was 'delivered' against the 'deliverables'.

In planning and implementing an effective training or development programme, there exists what is known as the 'ten-step' process. We normally begin by determining the needs, followed by setting the objectives and determining the subject contents. Selection of participants, scheduling, selection of appropriate facilities and instructors including training aids are also included. One important aspect, apart from the programme coordination is the evaluation of the said programme.

The starting point of any effective training and development programme is, without argument, the determination of the participant's needs vis a vis the organisation's operating requirements. There are many ways to determine this. The process at this stage is also called 'training needs analysis'. The main objective of this exercise here is to identify the 'gaps' (or 'training gaps') that appears when you compare the current competencies (in terms of knowledge, skills, experience and attitude) with that of the competencies that a candidate or participant ought to have based on the position that he occupies. In simple terms, HR professionals call this job specification. Job specification is the outcome of job analysis, a process involving identifying the qualities of the right candidate for the position. In other simple methods, the participant's needs are determined either tests (for the purposes of placement, streaming or even banding) or analyzing the information or inputs contained in the performance appraisal forms. The latter method provides accurate information that one would seek as the contents are filled by the participant and his/her immediate superior who knows or is in a better position to know the requirements of the job in question.

Once the needs have been determined, it is necessary to set the objectives. Although there are programme objectives and training objectives, the former, also known as the terminal or final outcome, and, the latter is actually a smaller broken down portions, cumulative attainment of which leads one to achieve the former.

Objectives for the programme are based on three aspects of the programme. The first is, 'what are we trying to accomplish?' The answers may vary from 'improved customer service' to 'efficient internal processes'. There is however a tendency for organisations to state objectives in terms of profits and ROI! These may not reflect the true purpose of setting objectives as there are many factors that determine profits and ROIs. The second is, 'what behaviours do we want the participants to have in

order to accomplish the results?' Here, the desired results would usually involve the quality of work life, higher morale, and thereby improved productivity. The final aspect is, 'what knowledge, skills and attitudes do we want participants to learn in the programme?' This could easily be seen in programmes aimed at teaching specific knowledge or skills.

This process of objective setting is important because the ultimate measuring or evaluation of training uses this as one of the basis for comparison.

### **WHY MEASURE TRAINING?**

Generally there are three main reasons why we need to evaluate training. The first is to justify the existence of the training department by showing how it contributes to the organisation's objectives and goals. In many organizations, the importance of training justifies the existence of a training department or a unit. If such a department or unit fails to show how it contributes to the organisation's objectives and goals, during downsizing or realignment, the training function is highly likely to be relegated to the Human Resource manager, who would already have many other hats to wear. In addition to overseeing recruitment and selection, managing compensation, appraising performance, ensuring occupational safety and health at the work place and managing industrial relations, the Human Resource manager would also carry this load on his shoulders.

The second reason is to decide whether to continue to offer a programme. The content of some programmes may become obsolete. For example in Information Technology programmes, due to constant changes in technology, the demand for such courses determines its future delivery.

The final and the most common reason for measuring training is to determine the effectiveness of a programme and the ways in which it can be improved. In answering the question 'how can it be improved?' the organisation should consider these eight factors:

1. To what extent the subject content meet the needs of those attending?
2. Is the course leader the one best qualified to teach?
3. Does the course leader use the most effective methods for maintaining interest and teaching the desired attitudes, knowledge, and skills?
4. Are the facilities successful?
5. Is the schedule appropriate for the participants?
6. Are the teaching aids effective in improving communication and maintaining interest?
7. Was the coordination of the programme satisfactory?
8. What else can be done to improve the programme?

A careful analysis of the answers to these questions would enable the organization to identify the ways and means of improving the delivery of the programme in the future. However, many organisation fail to embark on a task to measure training. The common reasons for this failure includes placing little or no importance on the matter, lack of knowledge on what to do or how to do it, lack of pressure from senior management added by security in their job, does not see why they should do more. To many, it is claimed that they simply have many other things that are more important or that they prefer to do.

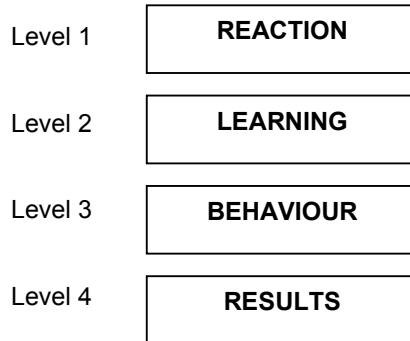
### **THE KIRKPATRICK MODEL – AN OVERVIEW**

Donald L. Kirkpatrick is a former national president of the American Society for Training and Development and regularly conducts evaluation workshops for ASTD and other organizations in both the private and public sectors. He has consulted on management training and development to a wide range of companies including Blockbuster, Caterpillar, Coca-Cola, Eastman Kodak, GE, Honeywell, IBM, Johnson Wax, Kemper Insurance, The Mayo Foundation and the U.S. Civil Service Commission. He was elected to the HRD Hall of Fame in 1997. The concept for his model originated from his work on his Ph.D. dissertation at the University of Wisconsin, Madison.

The four levels in the Kirkpatrick model represent a sequence of ways to evaluate programmes. Each level are as important and has an impact over the next. As the level progresses, it becomes more

difficult and time consuming, but the information obtained becomes more valuable. None of these levels can be bypassed on the reason that the information sought is available at that particular level.

The four levels are:



The first level of 'reaction' measures how the participant actually reacts to the training programme. This level also can be regarded as a measure of customer satisfaction. This can clearly be seen in instances where many organizations or training providers look into aspects pertaining to venue, food, infrastructure, etc. The second level which relates to 'learning' looks into the three aspects that training programmes usually accomplish. These are whether any change in attitude, improvements in knowledge and/or skills. The third level 'behaviour' examines the extent to which there is a change in behaviour of the participant who had attended the programme. The final level of 'results' is aimed at examining the impact that the training programme had over the organization or business. Here, aspects such as increased production, improved quality, reduced costs and accidents are normally included.

### **EVALUATING REACTION**

As mentioned earlier, evaluating reaction is similar to assessing the customer satisfaction. As an initial measurement, one can say that an effective training usually gets a participant to react positively. There are a few guidelines that would help organizations to evaluate reaction. First of all we have to determine what we want to find out. The common emphasis here could be one of the following such as food, programme schedule, venue, audio visual aids and so on. The second aspect is designing a form that would quantify these reactions. As a rule of thumb, it is said that an effective form should provide maximum amount of information within a minimum amount of time. This is understandable as most participants would be eager to leave at the end of a training session. Thirdly, apart from the ratings appearing in the form, the participants should also be encouraged to write their respective comments and suggestions. The fourth aspect is getting the responses immediately. Some participants are given an opportunity to submit or return the evaluation form at a later date. This practice may not be able to capture accurately the reaction that the participant had experienced, and further, his reaction could possibly be tainted by an intervening act or event or even circumstances. The fifth aspect would be to measure reactions against standards set by the organization followed by appropriate action taken to put right what was not. When we compare the standards achieved against the standard expected from the said programme, one could preliminarily conclude whether the standards are met. If the standards expected are not met, then the organization may make a change (the word substitution in such a situation would be more appropriate), modify the situation by taking steps to improve the situation, live with the unsatisfactory situation, or even change the standards if the circumstances are such that achieving the standards set earlier is not possible. Lastly, reactions must be communicated where appropriate. Communicating reactions to persons who have legitimate reasons may constructively improve things, especially to the trainers or facilitators, organizers (or coordinators as some are called) and the Training Manager (a stakeholder in this whole process).

### **EVALUATING LEARNING**

Learning is aimed at instilling knowledge, skills and attitudes, and this is exactly what a training programme can teach. We may measure behavioural changes by determining whether the

programme objectives are met. Compared to measuring reaction, measuring learning can be more difficult and time consuming. Some important things to adhere to are as follows. Firstly, the organization must use a 'control group'. A 'control group' refers to a group that does not receive the training. The comparison between the 'control group' against the 'experiment group' (the group that receives the training), would provide better evidence to changes (or improvements) that had taken place. Secondly, it is very important to evaluate knowledge, skills and behaviours at two stages; an assessment before the commencement of the programme, and, an assessment upon the completion of the programme (both of these are commonly referred to as pre-test and post-tests). These assessments can further be divided into two based on the perspective that we are looking for. For example to evaluate increase in knowledge or improvements in attitudes, we may rely on examinations or (paper and pencil) tests. To evaluate increase in skills, a performance test would be appropriate. The performance test is a method used to enable the participant to illustrate and perform the skills acquired having undergone a specific training programme. Examples of these may include technical skills such as operating computers, handling equipments and the like.

### **EVALUATING BEHAVIOUR**

At this level, we aim to look into what happens when a participant completes a training programme and goes back to his job. We are concerned the extent to which attending the training programme has changed that participant, especially in terms of knowledge, skills and attitudes. Whether there is what many would refer to as 'transfer of knowledge'? In evaluating behaviour, there are also a few important issues that need our attention. Firstly, on the understanding that behavioural changes does not happen within a short period of attending a training programme, we should allow time for behaviour change to take place. We should give the participants an opportunity to use the new behaviour. For some programmes it may take between two to six months before this 'transfer of knowledge' from classroom to workplace happens. Secondly, use of 'control group' as mentioned earlier would be helpful. Thirdly, the assessment before and after programme (pre-test and post-test) are also important. The most important issue in evaluating behaviour is perhaps identifying the sources of information pertaining to the same. Here, the information that we are seeking would best obtained from those who often observe the participant's behaviour. This category may include co-workers, immediate subordinates and immediate superiors. As a matter of caution, we may have to answer the following questions in order to ensure the information obtained accurately reflects the true situation. The four questions are: Who is best qualified? Who is most reliable? Who is most available? Are there any reason/s why one or more of the possible candidates should not be used? The method of obtaining information here could be by getting the participant to maintain a log book or observation form from the category of people mentioned earlier.

### **EVALUATING RESULTS**

This level seeks to determine the final result that attendance and participation in the training programme had produced. Organisations would normally consider questions like these:

- How much did quality improve because of delivering the training programme on Total Quality Improvements?
- How much did productivity improve because we conducted a programme on diversity in the workforce for all supervisors and managers?
- What reduction did we get in turnover rate because we taught our foremen and supervisors to orient and train new employees?
- What has been the result of all our programmes on interpersonal communication and human relations?
- What tangible benefits have we received for all the money we have spent on programmes on leadership, time management and decision making?

In this level, we may have to highlight the same issues such as 'control group', allowing time for results to be achieved, and, measuring the position before and after the programme (pre-test and post-test). The principle here is to be satisfied with evidence if proof is not possible. Many programmes may end up with intangible results. It makes it difficult for us if top management asks for tangible evidence that training programmes are paying off. Sometimes you may find positive results

have occurred. In other situations, one has to go back a level or two and evaluate changes in behaviour, learning, or both. In many cases, positive reaction sheets from supervisors and managers will convince top management. After all, if top management has any confidence in the management team, isn't it enough to know that the supervisors and managers feel the training is worthwhile?

## **OUR EXPERIENCE WITH THE PROFESSIONAL CERTIFICATE IN SALES**

Using this model, the Institute of Professional Development is measuring the training effectiveness of a group of participants on the Professional Certificate in Sales programme. The participants are sales personnel of Nestlé, a well known food manufacturer internationally. From a total sales strength of about 600, Nestlé selected 30 candidates to embark on this programme. The initial evaluation, a practice common in all our programmes was getting the participants to fill out the form, which was actually to determine Level 1, the level pertaining to reaction. The Level 2 evaluation pertaining to learning was done by a formal and summative assessment which included continuous assessment and a final examination. For Level 3 (behaviour) and Level 4 (results), we are currently compiling the statistics. This batch is expected to complete the programme in September of 2006. However, even at this stage, about 12 participants had been promoted and given increments based on increased performance in sales. An immediate response from their managers also indicated high motivation level added by loyalty to their organization. *(The statistics will be included in my presentation)*

## **CONCLUSION**

Looking back at the practice of measuring training effectiveness, in order to ensure the accuracy and complete feedback at all levels, there are two important criteria to fulfill. The first is to ensure that the feedback received is an honest input or responses from the participants or those involved, such as their co-workers and immediate superiors. This is important although may seem unnecessary, because responses given must be free from repercussions or risk of repercussions. The second is to ensure that we get 100 per cent immediate responses. Delay in collecting the responses may invite distortion of the actual situation, change in perceptions and opinions, or even, risk of influence and manipulation by other strong headed participants. Further, we also need to ensure reaction of the group as a whole. We should also not forget the saying that goes "what one can measure, one can improve", which means that what one cannot measure cannot be improved! Of course there is also the ROI factor, a practice of justifying investment in human capital. In many developed countries, employee training is not given its place as an investment being equivalent to purchasing machines and equipments, but something that the organizations had to do probably to reduce taxes, get reimbursements and the like. The basic underlying principle of investment to ensure productivity or profits is still strongly embedded in the current business enterprises.

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