



TRAINING RESOURCE

TRAINING EFFECTIVENESS

Evaluating a learning experience is a crucially important element of any training session. Quite often due to time constraints, resources available or in some cases lack of focus on the importance of evaluations, the effectiveness of a training session is given little or inadequate attention.

Evaluations in the form of quizzes and exams to ascertain if the participants have effectively gained new or enhanced knowledge and skills is fairly common practise. However asking participants for feedback and linking feedback to ongoing development is often less well managed.

Frequently training instructors and course developers will try to measure the effectiveness of the training by focusing on "student feedback". The reality is that the effectiveness of the training goes beyond just what the student thought and felt. Effectiveness should be measured at different levels and intervals to ensure that an overall assessment result can be attained and a true benefit to the training will be formed. Choosing the right format for transfer of feedback, deciding when is the right time and following up on the evaluations can be a difficult call at times. However, team efforts on the part of instructors, training teams and course developers should focus on making an informed decision on methods that ensure that the best possible feedback and effectiveness evaluation is obtained.

Tips on things to consider when discussing or thinking about effectiveness of training.....

- Is the feedback best obtained at the end of a particular sessions/topic or is it best left to the end of the overall course?
- Is it best to gain feedback by allowing participants to take forms home to complete post the training event or are they best completed in the training environment?
- Is feedback included in meetings with the participants and line managers or is information simply collated as from forms and exam results which are then processed through the organisation?
- Are feedback forms asking the right questions or are they general comments based from which little can be extracted?
- Does the instructor fill in any feedback reports, or is this left only to the participants?
- Is feedback obtained through open questions or do you use a "tick box" concept with associated ratings?
- Do your feedback forms have un-descriptive grading systems from which little information can be drawn from or do you have specific targeted grades which describe what each grade represents?
- Do you promote confidentiality with the feedback?
- Do you provide feedback to participants regarding their comments on the course or do you keep this information only for "Training Department" use?
- Do you link training aim to transfer of knowledge into the workplace?
- Do you work with line managers in assessing effectiveness of training?

Responses to the above considerations will vary according depending on a range of factors. The important aspects to consider include evaluating the situation, nature/purpose of the training, type of participants, training environment and organisational factors. Based on this the most appropriate decisions can be made on the above considerations.

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Kirkpatrick's four levels of training evaluation in detail

Donald Kirkpatrick is Professor Emeritus of the University of Wisconsin in North America and a past president of the American Society for Training and Development (ASTD). He is best known for creating a highly influential model for training evaluation, consisting of four levels of learning evaluation. Kirkpatrick's ideas were first published in 1959, in a series of articles in the US Training and Development Journal but are better known from a book he published in 1975 entitled, "Evaluating Training Programs".

The four levels of Kirkpatrick's evaluation model essentially measure:

- Reaction of student - what they thought and felt about the training
- Learning - the resulting increase in knowledge or capability
- Behavior - extent of behavior and capability improvement and implementation/application
- Results - the effects on the business or environment resulting from the trainee's performance

All levels of evaluation are important. Sometimes people skip the "level 1" evaluation because it doesn't directly relate to learning; however, if the student is distracted by something in the learning experience, his or her ability to learn can be impacted. Levels 3 and 4 are the most important because a difference in behavior is what we strive for. Levels 1 and 2 should be measured to make sure nothing gets in the way related to the training event/solution itself.

An addition to Kirkpatrick's model has been suggested by JJ Phillips in the form of fifth, Return on Investment (ROI), level which is essentially about comparing the fourth level of the standard model to the overall costs of training.

Level 1 Evaluation - Reactions

Just as the word implies, evaluation at this level measures how participants in a training program react to it. It attempts to answer questions regarding the participants' perceptions - Did they like it? Was the material relevant to their work? This type of evaluation is often called a "smilesheet." According to Kirkpatrick, every program should at least be evaluated at this level to provide for the improvement of a training program. In addition, the participants' reactions have important consequences for learning (level two). Although a positive reaction does not guarantee learning, a negative reaction almost certainly reduces its possibility.

Level 2 Evaluation – Learning

Assessing at this level moves the evaluation beyond learner satisfaction and attempts to assess the extent students have advanced in skills, knowledge, or attitude. Measurement at this level is more difficult and laborious than level one. Methods range from formal to informal testing to team assessment and self-assessment. If possible, participants take the test or assessment before the training (pretest) and after training (post test) to determine the amount of learning that has occurred

Level 3 Evaluation - Transfer

This level measures the transfer that has occurred in learners' behavior due to the training program. Evaluating at this level attempts to answer the question - Are the newly acquired skills, knowledge, or attitude being used in the everyday environment of the learner? For many trainers this level represents the truest assessment of a program's effectiveness. However, measuring at this level is difficult as it is often impossible to predict when the change in behavior will occur, and thus requires important decisions in terms of when to evaluate, how often to evaluate, and how to evaluate.



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Level 4 Evaluation- Results

Level four evaluation attempts to assess training in terms of business results. In this case, sales transactions improved steadily after training for sales staff occurred in April 1997.

Frequently thought of as the bottom line, this level measures the success of the program in terms that managers and executives can understand -increased production, improved quality, decreased costs, reduced frequency of accidents, increased sales, and even higher profits or return on investment. From a business and organisational perspective, this is the overall reason for a training program, yet level four results are not typically addressed. Determining results in financial terms is difficult to measure, and is hard to link directly with training.

On the following pages are grids that illustrate the Kirkpatrick's structure in detail, and particularly the modern-day interpretation of the Kirkpatrick learning evaluation model, usage, implications, and examples of tools and methods.

At the end of each grid there is a summary note for quick reference use when evaluating methods and approaches to measuring training effectiveness.



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evaluation level and type	evaluation description and characteristics	examples of evaluation tools and methods	relevance and practicability
<p>1. Reaction</p>	<p>Reaction evaluation is how the delegates felt, and their personal reactions to the training or learning experience, for example:</p> <p>Did the trainees like and enjoy the training?</p> <p>Did they consider the training relevant?</p> <p>Was it a good use of their time?</p> <p>Did they like the venue, the style, timing, domestics, etc?</p> <p>Level of participation.</p> <p>Ease and comfort of experience.</p> <p>Level of effort required to make the most of the learning.</p> <p>Perceived practicability and potential for applying the learning.</p>	<p>Typically 'happy sheets'.</p> <p>Feedback forms based on subjective personal reaction to the training experience.</p> <p>Verbal reaction which can be noted and analysed.</p> <p>Post-training surveys or questionnaires.</p> <p>Online evaluation or grading by delegates.</p> <p>Subsequent verbal or written reports given by delegates to managers back at their jobs.</p>	<p>Can be done immediately the training ends.</p> <p>Very easy to obtain reaction feedback</p> <p>Feedback is not expensive to gather or to analyse for groups.</p> <p>Important to know that people were not upset or disappointed.</p> <p>Important that people give a positive impression when relating their experience to others who might be deciding whether to experience same.</p>

Summary

- Measures reactions on what participants felt
- Feedback forms or post training surveys.
- Open questions at feedback sessions or post training meetings
- Can be done immediately at the end of training.
- Important to know if people were upset or disappointed.





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evaluation level and type	evaluation description and characteristics	examples of evaluation tools and methods	relevance and practicability
<p>2. Learning</p>	<p>Learning evaluation is the measurement of the increase in knowledge or intellectual capability from before to after the learning experience:</p> <p>Did the trainees learn what was intended to be taught?</p> <p>Did the trainee experience what was intended for them to experience?</p> <p>What is the extent of advancement or change in the trainees after the training, in the direction or area that was intended?</p>	<p>Typically assessments or tests before and after the training.</p> <p>Interview or observation can be used before and after although this is time-consuming and can be inconsistent.</p> <p>Methods of assessment need to be closely related to the aims of the learning.</p> <p>Measurement and analysis is possible and easy on a group scale.</p> <p>Reliable, clear scoring and measurements need to be established, so as to limit the risk of inconsistent assessment.</p> <p>Hard-copy, electronic, online or interview style assessments are all possible.</p>	<p>Relatively simple to set up, but more investment and thought required than reaction evaluation.</p> <p>Highly relevant and clear-cut for certain training such as quantifiable or technical skills.</p> <p>Less easy for more complex learning such as attitudinal development, which is famously difficult to assess.</p> <p>Cost escalates if systems are poorly designed, which increases work required to measure and analyse.</p>

Summary

- Evaluates what the participant learned
- Methods of assessments aligned with training aim
- Use of tests, exams, observations with reliable clear scoring
- Highly relevant for measuring technical skills
- Costly if system poorly designed





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<p>3. Behaviour</p>	<p>Behaviour evaluation is the extent to which the trainees applied the learning and changed their behaviour, and this can be immediately and several months after the training, depending on the situation:</p> <p>Did the trainees put their learning into effect when back on the job?</p> <p>Were the relevant skills and knowledge used</p> <p>Was there noticeable and measurable change in the activity and performance of the trainees when back in their roles?</p> <p>Was the change in behaviour and new level of knowledge sustained?</p> <p>Would the trainee be able to transfer their learning to another person?</p> <p>Is the trainee aware of their change in behaviour, knowledge, skill level?</p>	<p>Observation and interview over time are required to assess change, relevance of change, and sustainability of change.</p> <p>Snapshot assessments are not reliable because people change in different ways at different times.</p> <p>Assessments need to be subtle and ongoing, and then transferred to a suitable analysis tool.</p> <p>Assessments need to be designed to reduce subjective judgement of the observer, which is a variable factor that can affect reliability and consistency of measurements.</p> <p>The opinion of the trainee, which is a relevant indicator, is also subjective and unreliable, and so needs to be measured in a consistent defined way.</p> <p>360-degree feedback is useful method</p> <p>Self-assessment can be useful, using carefully designed criteria and measurements.</p>	<p>Measurement of behaviour change is less easy to quantify.</p> <p>Simple quick response systems unlikely to be adequate.</p> <p>Cooperation and skill of observers, typically line-managers, are important factors, and difficult to control.</p> <p>Management and analysis of ongoing subtle assessments are difficult, and virtually impossible without a well-designed system from the beginning.</p> <p>Evaluation of implementation and application is an extremely important assessment - there is little point in a good reaction if nothing changes back in the job.</p> <p>Behaviour change evaluation is possible given good support and involvement from line managers or trainees, so it is helpful to involve them from the start.</p>

Summary

- Evaluates how learning is applied and change of behaviour.
- Observation, interviews and assessments tools to measure.
- Difficult to quantify
- Requires management analysis and effective assessment/feedback tools.
- Needs good support at organisational level.





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<p>4. Results</p>	<p>Results evaluation is the effect on the business or environment resulting from the improved performance of the trainee - it is the acid test.</p> <p>Measures would typically be business or organisational key performance indicators, such as:</p> <p>Volumes, values, percentages, timescales, return on investment, and other quantifiable aspects of organisational performance, for instance; numbers of complaints, staff turnover, attrition, failures, wastage, non-compliance, quality ratings, achievement of standards and accreditations, growth, retention, etc.</p>	<p>It is possible that many of these measures are already in place via normal management systems and reporting.</p> <p>The challenge is to identify which and how relate to the trainee's input and influence.</p> <p>Therefore it is important to identify and agree accountability and relevance with the trainee at the start of the training, so they understand what is to be measured.</p> <p>This process overlays normal good management practice - it simply needs linking to the training input.</p> <p>Failure to link to training input type and timing will greatly reduce the ease by which results can be attributed to the training.</p> <p>For senior people particularly, annual appraisals and ongoing agreement of key business objectives are integral to measuring business results derived from training.</p>	<p>Individually, results evaluation is not particularly difficult; across an entire organisation it becomes very much more challenging, not least because of the reliance on line-management, and the frequency and scale of changing structures, responsibilities and roles, which complicates the process of attributing clear accountability.</p> <p>Also, external factors greatly affect organisational and business performance, which cloud the true cause of good or poor results.</p>

Summary

- Evaluates effect of training on the business.
- Difficult to use in some types of training.
- Management evaluation aspects.
- Requires good organisational culture towards linking training to overall performance.
- Can be used to include Return on Investment

