

RETURN ON INVESTMENT IN TRAINING

ROI Glossary

Project-Pilot P/02/B/F/PP - 125502

A PILOT-PROJECT
AIM AT CONCEIVING AND DEVELOPING A METHODOLOGY AND A SET OF TOOLS
ALLOWING TRAINING PROVIDERS, COMPANIES AND OTHER STAKEHOLDERS TO
EVALUATE THE
RETURN ON TRAINING INVESTMENT



RETURN ON INVESTMENT IN TRAINING

PROJECT PROMOTER

PORTUGAL

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FINLAND

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GREECE

IDEC – Industrial Development & Education Centre

www.idec.gr

WEGRE - Western Greece Development Centre

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ROMANIA

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RETURN ON INVESTMENT IN TRAINING

ROI GLOSSARY

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Return on Investment in Training: ROI Glossary

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Objective

The Glossary is concerned with the conception, development and implementation of a conceptual framework and aims to establish a short list of terms of reference between the partners involved in ROI – Return on Investment in Training Project.

A

Accreditation of Competences ::

Competences achieved during the training can be accredited in two ways:

1. The validation of non-formal or informal competences consists of attesting that an individual has acquired skills for a particular occupation, irrespective of the context. Validation can be followed by a more formal form of accreditation, i.e. by granting equivalencies or credit units for individuals entering a formal training action, or by issuing of certificates which guarantees.
2. The certification of formally gained competences, a process by which training institutions or education authorities are giving a formal value to competences acquired by individuals in the framework of formal training actions by awarding them certificates, titles or diplomas.

As mentioned above accreditation of formal learning may lead to certification whereas accreditation of non-formal/informal (e.g. work-based) learning may lead to validation (issuing of documents such as portfolios of competences) or to a more formal way of accreditation (granting of equivalencies, credit units, validation of gained competences etc.). A certification process may follow accreditation of non-formal or informal learning.

Accreditation of Training Organization ::-

It is a formal process validation and recognition of competences of the training organization required to develop and implement training initiatives related to specific competencies, methods and resources (human, technician tools and materials).

Achievement ::

A measurement of what a person knows. It can also do after training.

Appropriateness Evaluation ::

The appropriateness evaluation aims at verifying if the training course has been developed and implemented in accordance with the established objectives. It is a concept applied to the evaluation done before the training program, however, in a longitudinal approach the focus is in terms of the project conception and planning. It is also aimed at approving the congruency of the training context and the training objectives with the diagnosis analysis.

Assessment Indicators ::

The operational and observable variables which give information about the evaluation criteria as:

1. The indicators concerned with the conception of the vocational training project;
2. The indicators related to the development and functioning of the training intervention;
3. The indicators associated to the control of results and impact evaluation.



Assessment of Competences ::

Assessment of competences can be carried out through different procedures:

1. The competences gained through non-formal/informal learning can be appraised through different methods and using different criteria or points of reference according to the level of operation (enterprise/sector/national/European) and control (labour market or education system).
2. The competences acquired through formal learning are identified in the framework of assessment procedures (testing/examinations) leading to certification (awarding of a diploma, degree or certificate).

A general term embracing all methods used to appraise performance of an individual or a group. The assessment is a form of judgment that may concern either the student or the trainer, but also the training methods and all the elements of the training system.

B

Basic Skills ::

The skills needed to function in contemporary society, e.g. listening, speaking, reading, writing and mathematics.

C

Coaching Instruments ::

These instruments gives the opportunity to access how the trainers have applied the skills of coaching with the trainees.

The coaching instruments aims at measuring the impact of the trainers coaching style on the trainees' outcomes and at providing means of self-development to them.

Coherence Evaluation ::

The coherence of the evaluation aims to verify if the decisions related to the internal work of the training system are in accordance to the training objectives previously established.

The evaluation criteria aim at appraising the relationship between the vocational training components and the training objectives. This criterion is normally applied in the context of the previous and continuing evaluation.

Comparability of Qualifications ::

The extent to which it is possible to establish equivalence between the level and content of qualifications at sector level, regional, national or international level.

Comparability of qualifications enhances individuals' employability and mobility. This term must not be confused with equivalence of qualifications (which refers to the similarity of value of diplomas).



Competence ::

The individual capacity to enable people to perform successfully a function and their job by completing task or specific activities effectively; to meet the usual and changing occupational situations and requirements.

A competency can be know-how, attitudes, skills, qualifications, values or personal values; it can be specialized (e.g. the control of computerized processes), methodological (ability to think and decide, capacity to innovate), or social (language and communications skills, teamwork).

The notion of competence may include formal qualification as well as elements such as the capacity to transfer skills and knowledge in a new occupational situation or capacity to innovate.

Competency Management ::

A system used to identify and evaluate skills, knowledge, and performance within an organization. Such systems lets organization spot gaps and introduce appropriate training, compensation and recruiting programs based on current or future needs.

Conformity Evaluation ::

The evaluation criteria aim at appraising if the products, processes and services developed and implemented under the training initiative are addressed in agreement with the requirements, prescriptions, procedures and standards of the vocational training system.

It is an evaluation criteria usually applied in the context of the previous and continuing evaluation. One of the instruments used to control the activities is a traditional checklist of terms.

Content Validity ::

Content validity refers to the extent to which the instrument represents the content of the program. This type of validity is the most common and cost-effective approach. The instrument is a representative sample of the skills, knowledge or ability presented in the vocational training program. Low content validity means that the instruments do not represent the true sample of what was covered. High content validity means that the instrument represents a good balance of all the information presented.

To ensure content validity, all the important items, behaviours or information covered by the program should be included proportionally in the instrument. The number of items or questions in the instrument should correspond roughly with the amount of time, exposure or importance of the material presented.

Continuing Evaluation ::

The continuing evaluation is the ambit of a ongoing improvement strategy. The assessment is done during the training program in order to follow-up the project execution and produce information about the project management and control of the application of indicators.

This type of evaluation is also considered a process evaluation, nevertheless, it can be distinguished from the follow-up evaluation since it is focused on the execution it-self. In fact, the continuous evaluation assembles elements of the previous evaluation and is oriented to the follow-up evaluation indicators.



Construct Validity ::

Construct validity refers to the extent to which an instrument represents the construct it purports to measure. A construct is an abstract variable such as a skill, attitude or ability.

At a first step in defending construct validity, all parts of the construct must be defined and a logical case should be made showing that the instrument is an adequate measure of that construct. The definition of the construct should be as detailed as possible so that it is easy to understand.

Correlative Evaluation ::

Correlative evaluation measures the performance of the instructional system – how well the course designer and instructor have fulfilled their respective responsibility. The focus where is on the course content (relevance, clarity, timeliness); course design (appropriateness methods, media, time allocation, flow); and delivery (instructor's skills pacing, responsiveness to needs, how learners felt about the instructor or other delivery systems used).

Cost/Benefit Ratio (CBR) ::

The cost/benefit ratio indicates the relation between investment and benefits on the training program. A ratio of one indicates that the benefits are equal to costs. A ratio of two, indicates that the benefit is the double of the cost.

$$\text{CBR (\%)} = \text{Program Benefits} / \text{Program Costs}$$

The principal advantage of using this approach is that it avoids traditional financial measures, so that there will be no confusion when comparing training investments with other company investments.

Cost Quality ::

The cost quality belongs to the category of converting data to monetary values. The cost quality is calculated and the quality improvements are directly converted to cost savings.

D - - - - -

Developmental Testing ::

It is a progressive testing of an instructional system before implementation to evaluate the effectiveness of the course. The process consists of three phases: a) individual testing, done with an individual learner to evaluate sequence and grammatical structure or problem areas in the script while the material is still in draft format; b) group tryout, done with individual learners to evaluate the final format after revisions are made from the individual testing; c) operational tryout, conducted by course personnel in the actual training situation before implementation into the system.

Design Evaluation Instruments ::

In the context of evaluation, an instrument is a data-gathering tool that collects data to describe changes in attitudes, leaning, behaviour or other results achieved from the program. The instruments may include records-keeping systems, questionnaires,



examinations, attitude surveys, interviews, focus groups, observations or job simulations. The instruments should be statistically reliable and easy to use. It is important for the instrument to be designed not to alter course development and content.

Diagnosis Evaluation ::

This kind of evaluation is done before the training course or the training module. The diagnosis evaluation aims at assessing trainees competencies acquired during the experience or training; conceiving information about the trainees' needs and their relationship with the learning objectives. It is an important source of data about the trainees' profile.

Draw a Picture Instruments ::

These instruments use a creative technique to measure the impact of learning on the organization, where the training in question affects the people at all levels of the organization. It works with a single events and long-term training, either in-house or off-site.

The main objective are to put the learning achieved into the wider context of what happens in the department and to encourage the dialogue with managers and learners to ensure that nothing gets in the way of optimising the learning. The pictures are just a vehicle to help communication.



Efficacy Evaluation ::

The evaluation criteria aim at verifying if the obtained results confirm the objectives determined previously by the training promoter. The efficacy evaluation is applied in the context of the follow-up evaluation.

Efficiency Evaluation ::

The evaluation criteria aim at verifying if the results of the training process justify all the resources (human, material and financial), in the meanwhile, invested and mobilized. Generally, this notion appears associated with the efficacy evaluation¹. The efficiency evaluation is applied in the context of the continuing and follow-up evaluation.

E-learning ::

Term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN), audio-and videotape, satellite broadcast, interactive TV, CD-ROM, and others.

Enterprise Resource Planning (ERP) ::

A set of activities supported by application software that helps a company to manage such core parts of its business as product planning, parts purchasing, inventory

¹ However, efficacy is not similar to efficiency: a training course can be efficacious, when the results achieved confirm the objectives, but not efficient, if there are, for instance, a gap in relation to the previous budget; on the other hand, the training objectives can not be reached (inefficacy) but the budget was followed.



management, order tracking and customer service. It can also include modules for finance and Human Resource activities. The deployment of an ERP system can involve considerable business process analysis, employee retraining and new work procedures.

Evaluation ::

Any systematic method for gathering information about the impact and effectiveness of a learning offering. Results of the measurements can be used to improve the offering, determine whether the learning objectives have been achieved and assess the value of the offering to the organization.

It can also be considered as the process of gathering information in order to make good decisions. It is broader than testing and includes both subjective (opinion) input and objective (fact) input. Evaluation can take many forms including memorization tests, portfolio assessment and self-reflection. There are at least six major reasons for evaluating training, each requiring a different type of evaluation:

1. Improve the instruction (formative evaluation);
2. Promote individual growth and self-evaluation (evaluation by both trainer and learner);
3. Assess the degree of demonstrated achievement (summative evaluation attained by the teacher);
4. Diagnose future learning needs (of both trainer and learner);
5. Enhance one's sense of merit or worth (learner);
6. Identify or clarify desired behaviours (trainer).

Evaluation Criteria ::

A set of characteristics that create the context to produce objective judgments. The criteria are the characteristics selected by the experts' in charge of the evaluation process. On the other hand, with these criteria the appraisal professionals identify the indicators which allow the control of the process and identify if the criteria have been followed.

The main criteria for vocational training evaluation are: adhesion; coherence; conformity; efficacy; efficiency; appropriateness; utility; opportunity; sustainability and profitability.

Evaluation Inputs ::

The tangible and/or intangible resources allocated to the production evaluation results. The main inputs of the vocational training process are the diagnosis of training needs and also the results and impacts evaluation.

Evaluation Instruments ::

A test or other measuring device used to determine achievement or the relative standing of an individual or group or a test objective (i.e., attitude, behaviour, performance objective and other attributes). Evaluation instruments include tests, rating forms, inventories and standard interviews.



Evaluation Training ::

It is any systematic method for gathering information about the impact and effectiveness of the learning actions. Results of the measurements can be used to improve the training initiatives, determine whether the learning objectives have been achieved and assess the value of the training courses to the organization.

There are at least six major reasons for evaluating training, each requiring a different type of evaluation:

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External Databases ::

The external databases are sometimes available to estimate the value or cost of data items in the ROI calculation. Research, governments and industry databases can provide important information for these values. However, the challenge is to find a specific database to the situation.

External Evaluation ::

The external evaluation is done by someone who does not belong to the training promoter, generally, an expert or organization.

The external evaluation is mostly requested in the following cases:

1. Situations of negotiation to future financial found, which includes the continuous mission of the training entity and the development of the training programs;
2. Contexts of improvement of processes and services as the clients' satisfaction with the training entity services.

The degree of involvement of the assessment agents is lower than someone from the training entity. It is a fundamental type of evaluation in the context of processes and systems restructuring or at organizational change implementations.



Follow-up Evaluation ::

The follow-up evaluation is done after the training program. It is established to conceive information about the results and effects (direct and indirect) of the training program. The information assembled during this stage allows the assessment of the training impacts: the performance improvement at an individual level or in terms of the training context.

In prospective studies this type of evaluation can be done before the implementation of the training program.



Formative Evaluation ::

Evaluation designed to improve a program while the program is being developed. This type of evaluation aims at providing data about the quality assurance and the degree of adaptation of the trainees and trainers to the program in order to achieve the training goals. At this type of evaluation, it is measured the learner's progress and the degree to which our learning objectives are or aren't being met.

H

Human Performance Improvement (HPI) ::

A systematic process of discovering and analysing human performance improvement gaps, planning for future improvements in human performance, designing and developing cost-effective and ethically-justifiable interventions to close performance gaps, implementing the interventions, and evaluating the financial and non financial results.

Human Resource Development (HRD) ::

An organized learning experience, conducted in a definite time period, to increase the possibility of improving job performance and growth.

I

Identification of Competences ::

Identification of competences aims to specify/define the elements of competence either imbedded to a (group of) individual(s) or specific to a job/training, irrespective of the way these competences have been acquired. It can also be described as the process of specifying and defining the boundaries and content of competences. This term applies both to formally acquired competences (in the framework of a training leading to a certification) and to informal or non-formal competences.

Impact Evaluation ::

The evaluation of the vocational training impact promotes the assessment of the performance changes at an individual and organizational level and, eventually, at a socio-economic level.

This type of assessment occurs after the training program, but can also be done during the training and at the end of each training section (training in alternance).

The advantages of this type of training evaluation are the following:

1. To allow the assessment of the real changes of the context of reference;
2. To justify a continuous development and implementation of the training program, or its reformulation, or even, its extinction;
3. To evaluate the return on investment in training.

In-Company Training ::

Training for the employees of an organization held on the organization's premises.



Information Management System ::

It promotes the access to a variety and updated clusters of information allowing to take decisions based on fair judgments and congruent with the training goals. So, this tool assumes an important role in the vocational training context since many decisions are taken at different phases of the process, diverse elements are involved in the system and many intervention domains are represented.

Instructing Instruments ::

These instruments promotes the chance to access how the trainers have applied the skills of instructing in the training context. On the other hand, it helps the trainers to measure the impact of the training style on the learning outcomes and also provides a means of self-analysis.

The instructing instruments can be appropriate to evaluate the one-to-one instruction: at the end, to access how the trainers have applied the instructing skills; or after the subsequent one-to-one instruction, to access the trainees' progress.

Instructional Strategy ::

Plan of activities (with or without an instructor) to teach content and sequence learning experience. The approach used to present information in a manner that achieves learning. Approaches include tutorial, gaming, simulation, etc. Aspects of instructional strategies include the order of presentation, level of interaction, feedback, testing strategies, and the medium used to present the information.

Instruments Validity ::

A characteristic of vocational training instruments aim at fostering if the evaluation tools measure exactly what is supposed to be measured. The intervention strategies, and specifically the selected instruments, are settled by a set of prior and posterior variables and also by the conjunction of all the favourable and unfavourable factors.

The content validity refers to the degree of adequacy between the instrument context and the content which is selected to be measured; the more the congruency the more the level of inference.

The criteria validity refers to the validity associated to a criterion; consequently the intensity of the inference depends of the degree of consecution of the select criteria or set of criteria.

The construct validity occurs when the instruments are aimed at allowing the inference in terms of the selected construct².

Intangible Benefits ::

In addition to the tangible and monetary benefits, most of the training will have intangible, non-monetary benefits. The ROI calculation is based on converting both hard and soft data to monetary values. Other data items are identified but not converted to monetary values as:

- Increased job satisfaction;

² The construct represents a hypothesis of the diverse components correlated with each other in individual studies and/or in experimental treatments.



- Increased organizational commitment;
- Improved teamwork;
- Improved customer service;
- Reduced complaints;
- Reduced conflicts.

Interest and Involvement Instruments ::

These instruments provide a method for gathering information from learners about their feelings and sensations during their training. It works best with in-house training courses but can easily be adapted to evaluate other aspects, such as the ease or difficulty of applying the learning from activities to the workplace.

The interest and involvement instruments can also provide additional information to the trainer who is measuring the impact of their style on the learning outcomes.

Internal Evaluation ::

The internal evaluation is done by someone who effectively belongs to the training organization. It can be developed by a technician or by the department responsible for the assessment, most of the time, the person(s) responsible for the introductions of new improvements in processes, services and empowerment strategies and/or the responsible for the quality.

J

Job Analysis ::

Breaking down the complexity of a person's job into logical parts such as duties and tasks. It identifies and organizes the knowledge, skills and attitudes required to perform the job correctly. This is accomplished by gathering task activities and requirements by observation, interviews, or other recording systems.

Job Description ::

A formal statement of duties, qualifications and responsibilities associated with a job.

K

Knowledge Management (KM) ::

The process of capturing, organizing, and storing information and experiences of workers and groups within an organization and making it available to others. By collecting those artefacts in a central or distributed electronic environment (often in a database called a knowledge base), the Knowledge Management aims at helping a company gain competitive advantage.

Capturing, organizing, and storing knowledge and experiences of individual workers and groups within an organization and making it available to others in the organization. The information is stored in a special database called a knowledge base and is used to enhance organizational performance. Two of the most common ways are: documenting



individual's knowledge and disseminating through manuals or a database. Using such tools as groupware, email, and the internet that facilitates communication.



Learnactivity ::

A way of being that incorporates learning and working in an integrated system of performing tasks, capturing information, managing knowledge, and learning, all leading to the creation of new knowledge.

Individual and organizational effectiveness depend not only on learning better, faster, cheaper but through the consistent application of learning, combined with creativity, flexibility, and paying close attention to the right things.

Learner Centred Instruction ::

An instructional process in which the content is determined by the student's needs, the instructional materials are geared to the student's abilities and the instructional design makes the students active participants.

Learner Reactions Instruments ::

These instruments aims at completing and providing a quick and easy alternative to some surveys given out at the end of the training programs. The learner reactions instruments are indicate to measure individuals and groups in the in-house training courses and are also relevant to a single event or long-term training.

The main objective is to obtain trainees information about their impression of a particular aspect of the training course. The instruments are also important to feedback wanted from the trainees usually using flipcharts where the trainees make their responses. So, these instruments would be appropriate at the end of the training to encourage feedback from the target-population.

Learner Self-Assessment Instruments ::

These instruments give the learners the possibility of assessing their level of learning from the training. It works with in-house training courses one-to-one and group training. It is relevant to a single event or long-term training.

Each learner selects from a rating scale to indicate what they think is their level of learning in relation to the knowledge the training intends to help them develop, as well as the technical and behavioural skills.

The instruments can be used: to establish the learners' perceptions of their progress, which can be compared to the results from outcomes assessments and practical assessments instruments; to enable the trainer about the specific learning expected from the training.

Learning Analysis ::

The analysis of each task or subject area to determine what the learner must do upon completion of training, how well the learner must be able to do it, and what skills and knowledge must be taught in order to meet the end-of-training requirement.



Learning by Doing ::

Learning without instruction that aims to acquiring knowledge by repeated practice of a task.

Learning by Using ::

Learning without instruction that aims to acquiring knowledge by repeated use of tools or facilities.

Learning Management System (LMS) ::

Infrastructure platform through which learning content is delivered and managed. A combination of software tools perform a variety of functions related to online and offline training administration and performance management.

Learning Objective ::

A statement establishing a measurable behavioural outcome, used as an advanced organizer to indicate how the learner's acquisition of skills and knowledge is being measured.

A statement of what the learners will be expected to do when they have completed a specified course of instruction. It prescribes the conditions, behaviour (action), and standard of task performance for the training setting. An enabling learning objective measures an element of the terminal learning objective. Sometimes referred to as performance, instructional, or behavioural objectives.

Learning Organization ::

Continually learning new KSA's (knowledge, skills, abilities or attitudes) and applying them to improve product or service quality.

Learning Portal ::

Any Website that offers learners or organizations consolidated access to learning and training resources from multiple sources.

Learning Wrap-Up Instruments ::

These instruments adopt s an interview style to encourage learners to talk about what they have learned. It works with individuals and groups in any type of training. The main purpose of this instrument is to help the learners clarify what they have learned, which in turn can identify gaps still to be addressed, as well as motivate & the learners to apply what they have learned to their everyday routine.

These instruments can be used: to establish learners' outcomes at the end of the training; to establish learning outcomes and give some indication of the effectiveness of the training provider, specially, after attendance at the off-side training.



M

Measurement ::

A tool used to provide feedback to the learner and the trainer to determine where the learner is in relation to the ultimate goal or objective.

Measuring Impact ::

Evaluating training is more than measuring results. There are three areas on measure impact: a) the department where the learners work; b) the organization in a wider sense and c) the learners themselves. To measure the impact on these aspects is important to establish the indicators that describe the situation before and after the training. So the knowledge and skills before the training are compared to the expected knowledge and skills after the training.

Mentoring ::

A career development process in which less experienced workers are matched with more experienced colleagues for guidance. Mentoring can occur either through formal programs or informally as required and may be delivered in-person or by using various media.

Three mentoring roles can exist in a work context:

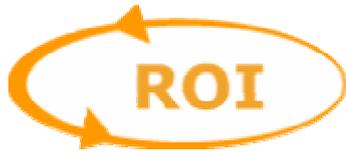
1. Mainstream mentor, someone who acts as a guide, adviser and counsellor at various stages in someone's career destined for a senior position;
2. Professional qualification mentor, someone required by a professional association to be appointed to guide a student through a program of study, leading to a professional qualification;
3. Vocational qualification mentor, someone appointed to guide a candidate through a program of development and the accumulation of evidence to prove competence to a standard.

Meta-Evaluation ::

The meta-evaluation is concerned with the assessment of the evaluation model in order to achieve the quality of processes and techniques. The approach is defined in accordance with the evaluation standards and the principal criteria in use are: 1. the strategy appropriateness and their adequacy to the training application contexts; 2. the degree of feasibility of the methods and rigour of data treatments.

Methodologies of Evaluation ::

The methodologies of evaluation are settle identity a set of indicators related to the design and implementation phase of the vocational training system and also the control and testing of the training results and respective impacts.



N

Needs Assessment ::

Formal process of identifying discrepancies between a learner's current performance vs. an organization's desired performance for that employee.

The Pre-test judges whether learners need to take training. The Post-test will provide remediation for reinforcement and sometimes reports back to management with scores.

O

Opportunity Evaluation ::

The opportunity evaluation aims at appraising the on time responses to the target population training needs. It is a concept applied to the evaluation done before the training program.

Outcome Assessment Instruments ::

The outcome assessment instruments enable the trainers to assess the trainees ability to carry out tasks where the outcomes, rather than purpose used to achieved the results, is important.

It is suitable to any training modality, especially, where there are no sequential actions and the finished product can be measured against the standards. It works with individual and groups. To use the outcomes evaluations instruments for external training specific to an organization it is needed to invest in organizational standards known to the provider and agree on these means of setting learning objectives.

This instrument can be used: to determine the components and standards before the training; to know what has to be measured from the outset means that appropriate training methods can be selected and the training can be designed to ensure that the right learning is achieved; to follow-up the deviations and propose alternative strategies.

Output Data ::

The output data is converted to profit contributions or cost savings. Output increases are converted to monetary value based on their unit contribution to profit or the unit of cost reduction. These values are readily available in most organizations.

P

Performance Evaluation ::

The individuals' assessment of behaviours and technical capacities required to perform a specific function. A process of data collection and analysis to determine the trainees' success on a specific task as a result of a training program.



Performance Evaluation Tools ::

Competency tests that allow the trainer to profile the student's proficiency and identify weak areas so that training can be efficiently planned for the areas of most critical need.

Performance Improvement ::

A systematic process of discovering and analysing human performance improvement gaps, planning for future improvements in human performance, designing and developing cost-effective and ethically-justifiable interventions to close performance gaps, implementing the interventions, and evaluating the financial and non-financial results.

Practical Assessment Instruments::

The practical assessment instruments enable the trainers to assess the trainees' ability to carry out tasks where the processes of achieving the results is as important as the outcomes.

It is suitable to any training modality where there is a set of actions that contributes to the end result. It works with individuals and groups taking part in in-house training. To use the instrument for external training specific to an organization it is needed to make the requirements known to the provider and agree on these means of setting learning objectives.

This instrument can be used: to create checklist for skills before the training; to know what has to be measured from the outset means that appropriate training methods can be selected and the training can be designed to ensure that the right learning is achieved; to follow-up the deviations and propose alternative strategies.

Presenting Group Learning Instruments::

These assessment instruments generate feedback from the learners about the expected and unexpected learning that has taken place. It is most suitable with in-house behavioural skills training and is a creative and entertaining way to work with groups.

The main uses of the instrument are to gather information about the learners' impressions of their own learning as well as to help to make them aware of what has changed for them as a result of the training.

These instruments aim at measuring progress of learning at selected times over long-term training and at summarizing what has been learned at the end of the training.

Previous Evaluation ::

The previous evaluation is done before the training program. It is established to conceive and define the performance indicators, the results and the training impacts. The information assembled during this stage allows the development of the training inputs essential to the design of the training system³.

³ In relation to the diagnosis evaluation, the previous evaluation is a more inclusive term since it includes the training context and also the characteristics and objectives of the training program; usually, the diagnosis evaluation considers only the trainees' profile, trainees' needs and characteristics.



The most important evaluation criteria are the relevancy of the training objectives in relation to the vocational training needs and the overall coherence of the training project.

Proficiency ::

Ability to perform a specific behaviour (e.g., task, learning objective) to the established performance standard in order to demonstrate mastery of the behaviour.

Proficiency Training ::

Training conducted to improve or maintain the capability of individuals and teams to perform in a specified manner. Training to develop and maintain a given level of skill in the individual or team performance of a particular task.

Profit Centre ::

The concept represents another approach to measure the return of investment on HRD. By this concept each department will be converted in a centre and this will allow the department to buy and sell in order to generate profit.

A profit-centre approach can replace or be used in conjunction with individual ROI calculation.

Project Plan Implementation ::

The implementation of comprehensive measurement and evaluation is a critical element of the process. If not approached in a systematic, logical and planned way, evaluation will not become an integral part of training and development and, consequently, the accountability of the programs will be lacking.

An important part of the planning process is to establish timetables for the complete implementation process. The document becomes a mater plan for the completion of the different elements, beginning with the assigning responsibilities and concluding with the estimation of the project targets. The items and the schedule include, developing specific evaluation projects, building staff skills, developing policy, analysing evaluation data and communicating the results.

Q — — — — —

Qualification ::

The requirements of a performance function for any individual to enter or progress within an occupation. It can also be considered as an official record (certificate, diploma) of achievement which recognizes successful completion of education or training, or satisfactory performance in a test or examination.

The concept of qualification varies from one country to another. It may express the ability - formally defined in work contracts or collective agreements - to do a certain job and meet its requirements.

The term qualification may also refer to the individual's level of education/training or to his/her ability to cope with occupational challenges, and defined below as competence. A qualification entitles him/her to a number of prerogatives which determine the individual's position within the hierarchy of his/her occupational context.





Qualitative Evaluation ::

The qualitative evaluation involves the research, treatment and presentation of information using facts. It allows a detailed characterization of the training context, frequently accessed by the following methods: direct observation, documentation analyses, interviews, and teamwork and focus groups.

This approach can be used for example in two ways: 1) in an exploratory perspective, like the design of tools as questionnaires; 2) in a testing of hypothesis, namely, the corroboration of the results expected by the trainees.

Quantitative Evaluation ::

The quantitative evaluation expresses the training achievement through quantitative methods. The choice of the quantitative measures is somehow related to what is expected to be measured. For instance, in the case of summative evaluation the quantitative approach aims at, on one hand, identifying the concrete indicators of evaluation measures and processes; on the other hand, dissociating variables of impact evaluation.

R

Reactions Evaluation ::

The reaction evaluation aims at assessing the degree of trainees' satisfaction in relation to the training initiative and the training conditions. This process is established in order to improve the training program.

Some advantages of the reactions evaluations are:

1. To foster a fast evaluation in terms of results' achieved;
2. To promote an inexpensive modality of evaluation;
3. To consider the evaluation inside the formative context and, by consequence, allowing the introduction of changes during the training program.

Reliability ::

The term refers to the consistency and stability of an instrument. One reliable instrument is one that is consistent enough to provide approximately the same results in subsequent measures of an item; yielding comparable results each time. The same result is achieved on successive trials.

Return on Investment in Training (ROI) ::

Generally, a ratio of the benefit or profit received from a given investment to the cost of the investment itself.

$$\text{ROI (\%)} = \text{Net Program Benefits} / \text{Program Costs} \times 100$$

In the traditional training system, the ROI is measured as the quantification and relation between the monetary value produced by the training impact with the costs (in percentage).

In the e-learning system, ROI is most often calculated by comparing the tangible results of training (for example, an increase in units produced or a decrease in error rate) to the cost of providing the training.



ROI at Level 1 - Reaction ::

The evaluation Level 1 is a higher-level of assessment information which includes planned applications of training and the collecting of important data by using a series of questions.

The trainees are asked to state specifically how they plan to use the training program namely:

- What they estimate to be the increase in their personal effectiveness as a result of the training program
- What they will do differently on the job as a result of the training program
- Which is the trainees' level of satisfactions with the program

Some advantages of the ROI at Level 1 are:

1. To foster a more insight into the program than data from typical reaction questionnaires;
2. To promote useful indication of the programs potential impact than simply reporting attitudes and feelings about the program and the trainer;
3. To collect this type of data an increasing attention to program outcomes is needed, therefore trainees leave the program with an understanding of that specific behaviour changes are expected;
4. To follow up the programs helps trainees plan the implementation of what they have learned.

ROI at Level 2 - Testing ::

The evaluation Level 2 is addressed to testing for changes in skills and knowledge. In fact, in many situations, trainees are required to demonstrate their knowledge or skills at the end, if the training program and their performance is expressed as a quantitative value⁴.

To estimate the ROI from the program the following steps should be used:

- Ensure that the program contents reflect desired on-the-job performance;
- Develop an end-of-program test that reflects program contents;
- Established a statistic relationship between trainees test data and output performance;
- Predict each trainee performance levels with given test scores;
- Convert performance data to monetary value;
- Compare total predicted value of program with program real costs.

Some advantages of the ROI at Level 2 are:

1. To foster a more information about the value of the projected program then do raw tests scores;
2. To develop individual ROI measurements and communicating them to trainees has reinforcement potential;
3. To estimate data credibility with management and preclude expensive follow-ups and post-program monitoring. Since the relationship is statistically based on the estimated should be in accordance to target group.

⁴ To achieved the previous goal, the type of test develop must be reliable (consistent results over time) and valid (measures what it purports to measure). Since the test reflects the content of the training program, the improvement of the job performance can be inferred. Consequently, there should e a relationship between test scores and subsequent on-the-job performance.



ROI at Level 3 – Skills and Competencies ::

In most training programs, the trainees are expected to change their on-job-behaviour through the application of the contents of the program. Although the use of the skills on the job is no guarantee, most training programs assume that if the knowledge and skills are applied, then results will follow.

However, to evaluate the ROI at the Level 3 it is important to:

- Estimate developed competencies for the target job;
- Indicate percentage of job success that is covered in the training program;
- Determine monetary value of competencies, using trainees salaries and employee benefits;
- Compute the worth of the pre and post-program skill levels;
- Subtract post-program values from the pre-program values;
- Compare the total added benefits with the training program costs.

Some advantages of the ROI at Level 3 are:

1. To determine the worth of the training program, when there is no plan to track the actual impact of the program in terms of specific measurable business results;
2. To understand the assumptions and measure the tangible changes after the training event as far as quantity, quality, cost or time are concerned.

ROI at Level 4 – Business Results ::

The outputs variables of the ROI at Level 4 are usually considered in terms of cost reduction, productivity increases, improved quality, increased customer service, etc. As for the results of a training program, two important issues are required:

1) the isolation of the effects of training; 2) the need to transform the variables in to monetary units. The first step is to determine the extent to which the training program changed the output variables. The next step is to involve concerning output data to operational variables. It is more difficult to assign a monetary value to quality improvements than to meet customer's satisfaction levels.

In fact, the ROI calculation on business results are credible and reliable if appropriate processes have been used to isolate the effect of training and the conversion of the results to monetary units is accurate.



Self-Assessment ::

The process by which the learner plan, organize, execute and evaluate the training actions and determines his/her personal level of knowledge and skills.

Simulations ::

Highly interactive applications that allow the learner to model or role-play in a scenario. Simulations enable the learner to practice skills or behaviours in a risk-free environment.

An instructional strategy used to teach problem solving, procedures or operations by immersing learners in situations resembling reality. The learners actions can be analysed, feedback about specific errors provided and performance can be scored. They provide safe environments for users to practice real-world skills. They can be especially important in situations where real errors would be too dangerous or too expensive.



Skill Audit ::

It's an individual identification process and the awareness of the motivation, interests, abilities and professional and personal skills, in order to define a professional training project through the action of a counsellor or coach.

Skill ::

The relevant knowledge and experience needed to perform a specific task or job and/or the product of education, training and experience which, together with relevant know-how, are the characteristics of technical knowledge. The notion of skill is sometimes ill defined. It refers to (and partly overlaps with) other basic concepts such as competence, qualification and knowledge. A set of behaviours established at a cognitive, psychomotor and affective levels which allow the relevant knowledge and experience needed to perform a specific task or job.

Skills Certification ::

It is a formal process validation and recognition of competences of the person and other conditions required to the performance of profession or professional activity. These skills are acquired in a training course, through the professional experience or both.

Skill Gap Analysis ::

The process that compares a person's skills to the skills required for the job to which they have been, or will be, assigned. The purpose is to identify clearly the skills employees need in order to succeed in their current or planned positions and to compare employee skills with those required. The result is an improved understanding of exactly which skills employees need to develop further.

A simple skill gap analysis consists of the list of skills required for a specific job along with a rating of the employee's level for each skill. Ratings below a certain predetermined level identify a skill gap.

Skills Inventory ::

A list of skills or competencies that an individual possesses, usually created by self-evaluation.

Stakeholders ::

Individual or entity, private or public, somehow responsible for the vocational training system development and implementation. Nevertheless, the term is also related to the project financial support. The percentage of the financial support isn't a rigid value, but it depends on the modality, program, initiative or training action. The differences can also relate to macro economic strategies according to each country policy.

Summative Evaluation ::

Modality of apprenticeship evaluation used after an instructional program to determine worth of program and usefulness to the learners. It can also be produced a judgment about the results achieved by the trainees. It is the evaluation modality where are measuring the learner's performance after training and the degree to which behaviours back at work meets the expectation that prompted the training.



T

Tailor Made Evaluation ::

When the evaluation is made according to the trainees' needs and expectations.

Test ::

The test is normally used to describe an assessment conducted within formal and specified procedures designed to ensure high reliability.

Trainee ::

A person who attendance a training course or someone being trained for a job.

Trainees Feedback Instruments ::

This type of instruments provides the opportunity for the trainees to give their impressions about their training program. It works with individuals or groups and is adequate for one-time training and for longer training programs.

These instruments can also be used to help learners reflect on their experience and appreciate the value of what they have learned so that they are motivated to transfer this learning into they everyday routine.

Trainer ::

In the context of training system he/she is competent to intervene in the training process. A professional qualified with the necessary academic and professional skills and who becomes responsible for the trainees' skill acquisition and capacities, attitudes and development of behaviour.

The trainer directs the development of learners by making them qualified or proficient in a skill or task. He/she uses coaching, instructing and facilitating techniques to accomplish the learning objectives.

Trainer Profile Learner Assessment Instruments ::

The trainers profile learner assessment instrument promotes a list of facilitation behaviours. It is also important to give trainees experience in recognizing and assessing behaviour. Than in turn, produces a profile that indicates where the trainers have used behaviours effectively.

The main use of this instrument is to gain another perspective on how effective the trainers are at facilitating groups.

These instruments would be appropriate at the end of the training as a means for trainees to reflect on what the trainer has done. Is can used as a complement of the Trainer Profile Self-Assessment Instruments describe below.

Trainer Profile Self-Assessment Instruments ::

The trainer profile self-assessment instruments gives the opportunity of measuring the trainers profile and their impact on the learning outcomes and, by consequence, in the success of the training initiative.



These tools are designed to create a profile to indicate the effectiveness of the trainers' facilitation and would be appropriate throughout the training (to give the opportunity to record the trainees' judgments), after the training (to reflect the trainers' behaviours) and after subsequent training (to monitor progress in putting the actions in place).

Trainer Style Instruments ::

The trainer style instruments are conceived to be a self-development tool. In fact, if the trainers have access to their style, they will be able to implement eventual performance improvements which will contribute to the achievement of learning outcomes.

This assessment tool gives the opportunity to analyse the type of actions, methods and strategies and the impact of these factors on the vocational training system, in general, and on the trainees' knowledge acquisitions, in particular. It works with one-to-one and group training situations and can be applied to a single training event or as a review of several.

These instruments would be appropriate to measure the trainers' style after the training as a mechanism for self-reflection and to monitor the training progress and implement actions.

Training ::

A process that aims at improving knowledge, skills, attitudes, and/or behaviours in a person so that he/she will be able to accomplish a specific job task or goal. Training is often focused on business needs and driven by time-critical business skills and knowledge, and its goal is often to improve performance.

Training Audit ::

It's a systematic process of training program evaluation which includes the input, outputs and training impact. The assessment is based on a referential of criteria that allow the identification of eventual problems and solutions.

Training Costs ::

The training costs are all the inputs of the vocational training system. These factors can be direct or indirect and include several categories as the vocational training diagnosis and planning; the training conception and execution, and finally, the training costs evaluation.

Training Cost Effectiveness ::

Actual or predicted effectiveness in relation to life cycle costs.

Training Evaluation ::

It's a process that allows the systematic follow up of the training initiative, through the use of explicit or implicit quality standards. The training evaluation aims at producing judgments to take eventual decisions and promote achievements in the training course.

Training Fidelity ::

The extent to which cue and response capabilities in training allow for the learning and practice of specific tasks so that what is learned will transfer to performance of the tasks in the operational environment.

Training Needs Analysis Tools ::

These tools offer the opportunity of reflecting on how the training needs have been identified, how these are related to the organization as a whole, and how the analysis



processes is in generating useful information and involving the right person. It works for off-site training activities and longer programs.

The tools can be achieved by involving the institutional organisms in the review of current training programs or sharing future activities.

Training Needs Assessment ::

The process used to research information related to individuals/ collective gaps in terms of knowledge, capacities and attitudes that may foster performance difficulties or lower productivity.

Training Needs Processes Instruments ::

The training needs processes instruments are addressed to obtain the trainees' impressions of the way the training needs are identified, as well as their expectation of the training. It works for one-time as well as longer training programs.

The instruments offers information about how they think the process of identifying their needs could have been more effective.

Transfer of Training ::

The ability of a person to effectively apply to the job the knowledge and skills he/she has acquired in dissimilar learning situation; also, the learning in one situation that facilitates learning (and therefore performance) in subsequent similar situations.

Transferability of Apprenticeship Evaluation ::

Transferability of apprenticeship is one of the most important steps to evaluate the success of a training initiative. In fact, the transferability of apprenticeship evaluation aims at measuring the knowledge acquired during the training course and assessing the level of mobilization to the different application contexts.

There are some obstacles to the evaluation mentioned above:

- The lack of involvement of the top management in the training process;
- The disarticulation between the different departments of the organization in relation to the global objectives;
- The establishment of ambitious objectives.

In fact, sometimes the system aims at considering the training as an end or results; unfortunately, it is not percept as an instrument or tool to achieve the training goals.

Transferability of Competences ::

The capacity (of competences) to be transferred to a new context, either occupational or educational. Transferability of competences is a key element of individuals' mobility; it represents a real asset on the labour market.

Transferability of competences can be promoted by different means, including the modularisation of training curricula, the creation of portfolios of competences and the validation of non-formal leaning. This may facilitate the transition from vocational training to academic and/or higher education, as well as a transfer of competences from one occupational sector to another.



Tutorial ::

Step-by-step instructions presented through computer or Web-based technology, designed to teach a user how to complete a particular action. An instructional program that presents new information to the student efficiently and provides practice exercises based on that information. A lesson design used to teach an entire concept. Interactive instruction that asks questions based on the information presented, requests student responses, and evaluates student responses. It is self-paced, accommodates a variety of users, and generally involves some questioning, branching, and options for review.

U

Utility Evaluation ::

This type of evaluation is aimed at verifying if the results of the vocational training program suit the previous need and intentions. It works as an assessment criteria of the follow-up evaluation and should respond to the question: for whom has the vocational training program been useful?

V

Validity ::

The degree to which a test measures what it is intended to measure. Although there are several types of validity and different classification schemes for describing validity there are two major types of validity that test developers must be concerned with, they are content-related and criterion-related validity.

Vocational Training ::

The part of vocational education that offers the special vocational knowledge and skills required for particular occupations. Vocational training usually is offered by organizations, which are outside the formal system. These entities are considered as social partners since they allow the contact with real function(s) and contribute to the insertion of the trainees in the labour market.

In the vocational education, the opposite happens. In fact, the training period is included in the formal system.

W

Write a Story Tools ::

These tools offer a creative way of measuring the impact of learning from large-scale programs upon the organization. Each one of the selected trainees across the organization is asked to write a story before and after the training.

The main propose of these tools is to help to gather a range of perceptions about how the organization works and to estimate how far his/her opinion is a consistent one.



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