ROI Methodology

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

1. Objectives

The present document is an approach to the Return on Investment in Training Evaluation Model. In order to evaluate the training contexts objectively, the framework defines, conceptualises and systemises the primary variables, and after that, the purpose is to describe the ROI Indicators.

The methodology contains a realistic evaluation of the training contexts, their structure, contents, target populations and other issues. The model promotes the definition of the several possibilities and presuppositions concerning alternative scenarios as well as reasons which promote an intervention strategy.

The ROI Evaluation Model is design under a systemic and constructivist perspective, respectively:

a) Projecting of diverse sub-systems and their relationships;

b) Considering the agents as active elements of the process.

Under this umbrella, the target population involved in the training process may have the ability to plan their professional goals, bringing expectations and objectives to the system, and, by consequence, acquired new skills, capacity to decide alternative routes and adaptability to new situations.

2. ROI European Evaluation Model

The ROI European Evaluation Model aims at contribute to the clarification of the ROI guidelines, especially, the measures able to became implemented. In fact, the *Best Practices Studies* and the related literature disseminate standard models. Nevertheless, these are considering references when translated to the practical field, in some cases the models sub-esteem the execution capacity and neglected the evaluation of the results and impacts. So, to clog up this gap it is our purpose to consider the contexts variables, potentialities and eventual obstacles to the ROI Action Plan.

In reality, the project pilot is design and conceive a methodology and a set of tools allowing the training provider, companies and other stakeholders to evaluate the return on investment in training. On the other hand, to achieve this goal is essential to guarantee the SME's participation – the enterprises should be previously selected in order to integrate in the case studies; without their active participation, the work will be unsuccessful!

The ROI Evaluation Model below synthesizes the most pertinent factors to be considered the evaluation process:

1. It should takes in account the following focus-groups: TP.1 – "Active adults/Employed people"; TP. 2 - "Young people seeking for the first job"; TP.3 - "Unemployed people".

2. All the target-groups follow training initiatives[1] and the evaluation process is focused at different moments. On the other hand, according to each target group, the evaluation will be focused upon different tools.

The **TP.1** evaluation should be oriented to analyze if the new skills acquisition are transferred to the enterprise environment. In fact, it should be determinate how the employed people receive the training courses in order to fulfil their knowledge gaps and witch is the impact intervention at the organizational improvement. On the other hand, besides the evaluation of the results is important to assess the return of the investment and the analysis of cost/benefit.

The **TP.2** evaluation is focused to determine if "Young people seeking for the first job" are getting employability after the training actions; and also, to guarantee that the Training profile after the training fits with the profile required to the enterprises. Where, the ROI evaluation is focus on: a) "Period between end of Training and hiring"; b) "Connection between training and tasks in company"; c) "Employment mobility after training".

The **TP.3** evaluation is focused to determine if "Unemployed people" acquire knowledge domain in order to apply to an enterprise position. The success of the initiative is mediated by a diagnosis tool "the Skills Balance" and also by measuring the "Period between end of Training and hiring".

In both cases, TP.2 and TP.3, the tutor or counselling guidance it's an important element of the evaluation process. In reality, it assumes a privilege contact between the enterprises request and the training entity's offer – the trainees. In relation to the TP.1 condition, the department manager is also essential to access to the return on investment in training, because is this person responsible for: a) training diagnosis interview; b) learning contract; c) after training interview; d) individual development plan.

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[1] In terms of procedures the information is present at the Table 2: ROI Methodology Model.

3. A very similar aspect to the 3 conditions (TP.1, TP.2 and TP.3) is the evaluation moments. The ROI Evaluation Model projects the following evaluation moments for impact evaluation: 3 and 6 months after the training

Table 1: ROI Evaluation Model
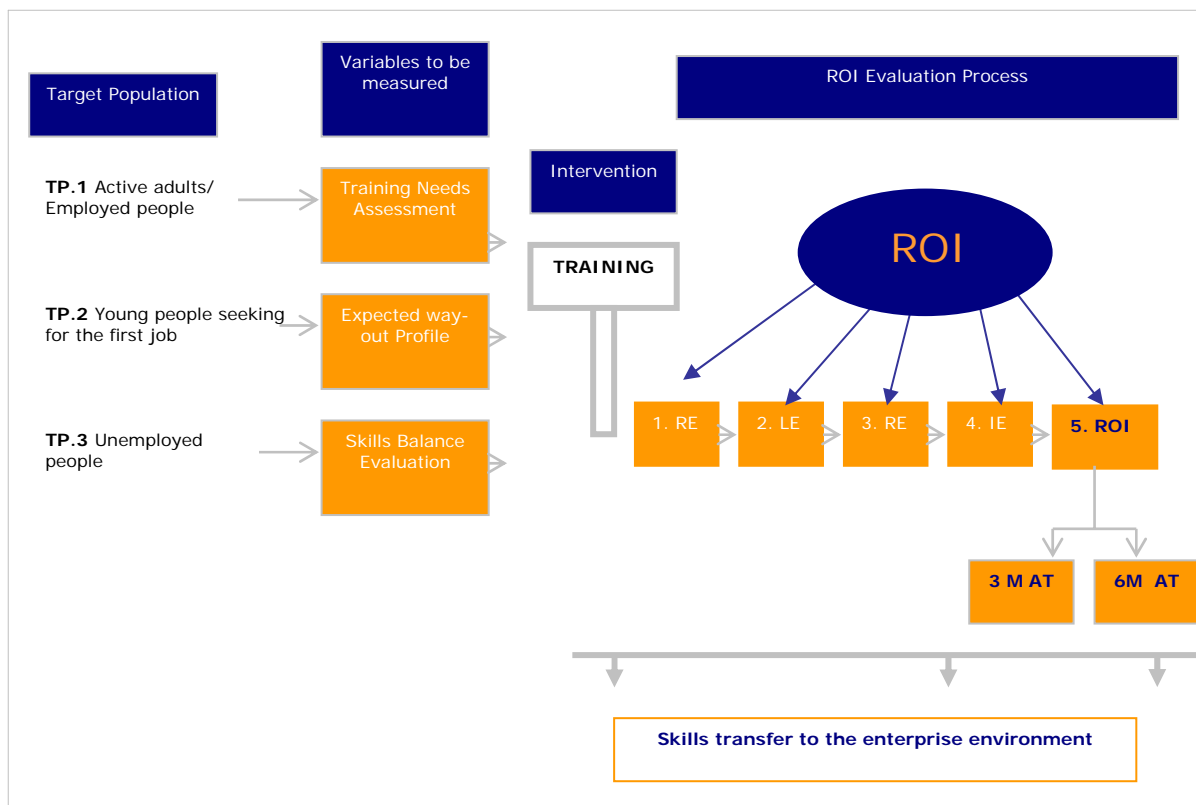
1. RE, Reactions Evaluation; **2. LE**, Learning Evaluation; **3. RE**, Results Evaluation; **4.IE**, Impacts Evaluation; **5. ROI**, Return on Investment in Training; 3 **M AT**, 3 Months After Training; 6 **M AT**, 6 Months After Training.

3. ROI Methodology Model

As mentioned previously, the ROI Evaluation Model is design in order to be applied at diverse training context. At this moment, our goal is to discuss the ROI Methodology Model[2].

Stage 1: Training Needs Assessment
The methodology aims at assess the performance of the several target populations always according with the conditions mentioned above:
1) Active adults - the enterprise mission and objectives;
2) Young people - the training profile after the training fits with the profile required to the enterprises;
3) Unemployed people - the acquisition of new skills in order to apply to an enterprise position.

Stage 2: Evaluation Planning
The methodology is focused at designing the program objectives and comprehensive evaluation plans. This stage aims at ensuring if the evaluation addresses the objectives, uses proper data tools and if the data analyses methodology is appropriate.

Stage 3: Data Collection
The methodology aims at collect the training data, in particular, the aspect related to the evaluation moments during and after the training initiative. However, data are collected at different moments and depending of the target population (as mentioned previously).

The reaction and learning evaluation level are critical for immediate feedback - training adjustments. The Implementation and Business Impact is measured after the training program; following the course it can gather information about the skills and knowledge's acquisitions as well as about the training impact.

Stage 4: Data Analysis
At stage 4, the methodology aims at analysing if the results of the program begin to become clear. In terms of procedures, this can be done by isolating the effects of the training program, convert the data to monetary values and, finally, calculate the return on investment in training. In addition to the tangible, monetary benefits, it's essential to calculate the intangible benefits.

Stage 5: Communicate Results
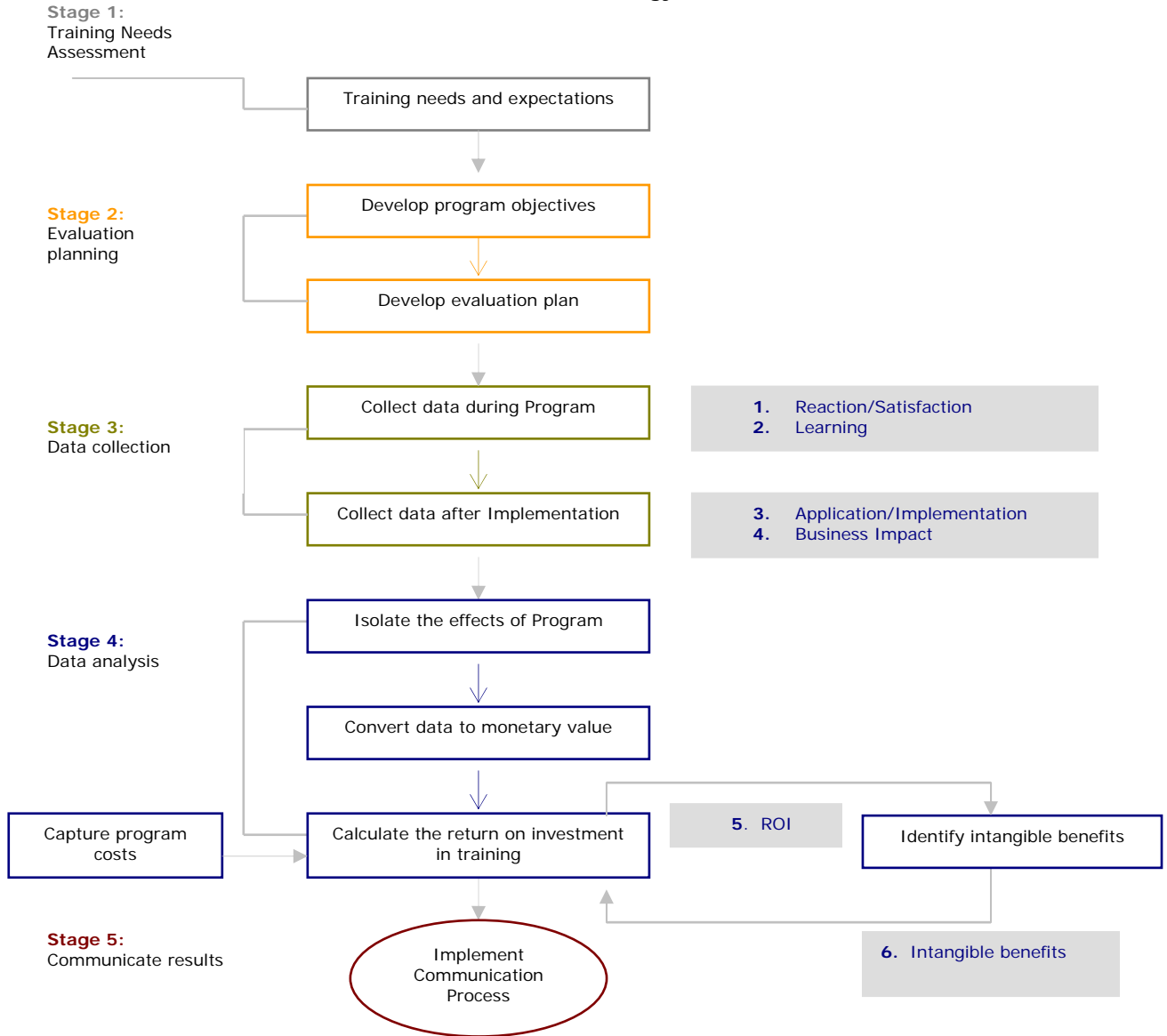Finally, the ROI methodology should addresses the communication of the results.

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[2] Source: Phillips, P. P. (2002). The Bottomline on ROI. Atlanta, Georgia: CEP, Press. Model adapted from: Phillips, Jack J., Ron Stone and Patricia Phillips.2001. The Human resources Scorecard : measuring the return on investment. Boston: Butterworth-Heinemann.

In fact, the communication stage is often just as important as the evaluation itself.

Table: ROI Methodology Model

Stage	Process	Levels
Stage 1: Training Needs Assessment	Training needs and expectations	
Stage 2: Evaluation planning	Develop program objectives → Develop evaluation plan	
Stage 3: Data collection	Collect data during Program	1. Reaction/Satisfaction 2. Learning
	Collect data after Implementation	3. Application/Implementation 4. Business Impact
Stage 4: Data analysis	Isolate the effects of Program → Convert data to monetary value	
	Capture program costs → Calculate the return on investment in training ← Identify intangible benefits	5. ROI 6. Intangible benefits
Stage 5: Communicate results	Implement Communication Process	

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4. ROI Evaluation Criteria

The frame presents the variables of the ROI Evaluation Model. In order to facilitate a systematic and coherent approach, the model develops the main objectives and activities. The evaluation matrix is organised by levels and domains. In terms of levels[3]:

- Level 1 (L. 1) – Learning context' antecedents variables
- Level 2 (L. 2) – Factors that regulate the outputs: reactions and learning
- Level 3 (L. 3) – Outputs: results and learning impacts
- Level 4 (L. 4) – Return on investment in training

In relation of the domains, the criteria selection is based on the relevant information to individuals and institutions, as the political measures assembling to implement measures[4]:

- Domain A (D. A) – Individual/organization domain
- Domain B (D. B) – Learning model approach
- Domain C (D. C) – Training service providers and institutions that provide training services (for individual or institutional subjects)
- Domain D (D. D) – Vocational training system evaluation

ROI Indicators Frame - Return on Investment in Training Evaluation Model

LEVEL / DOMAINS	L. 1 Learning context' antecedents variables* * (facilitator factors and obstacles)	L. 2 Factors that regulate the outputs		L. 3 Outputs		L. 4 Return on investment in training
		Reactions	Learning	Results	Impacts	
D. A Individual/ Organizational	Training profile: - Expectations - Professional experience - Skills - Assessment of training needs	Level of satisfactions: - Trainees - Trainers - Tutors	Individual attitudes Commitment Behaviour change	Skills balance - Improvement of skills gap - Labour market insertion	Evaluation of the changes: - Individual performance in the work context	Calculate the monetary value of the new competencies acquisition Estimate the costs/benefits ratio per trainee
D. B Learning Model	Learning conditions: - Trainees - Trainers - Tutors	Conformity Evaluation: - Requirements - Procedures - Methods - Prescriptions	Sessions Clime Training activities and practices	Efficacy Evaluation: - Results refer to the objectives Pertinence Evaluation: - Training response to	Learning Model Quality Evaluation	Estimate the costs/ benefits of the training program

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[3] Source: Kirkpatrick Model (1998).
[4] Source: OECD, Framework for the Development of OCDE Education Indicators (03-06-03).

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				the trainee needs <u>Summative Evaluation</u>		
D. C **Service providers**	<u>Characterisation of the training promoter entities</u>[5] - Culture - Clime - Values	<u>Formative Evaluation</u>	<u>Learning environment</u> <u>Program follow-up</u>	Training promoters output; Institutional performance and entities quality improvement	<u>Evaluation of the changes:</u> - Performance organization	Estimate the add-value of the training to the organizations Add-value associated to the growing of new business areas
D. D **Vocational Training System Evaluation**	<u>National Context</u>: - Educative - Social - Economic	<u>Conformity Evaluation:</u> - Quality *standards* implementation	<u>Formative Evaluation</u> <u>Structures, resources and politics analysis</u>	<u>Summative Evaluation</u>	Quality of the vocational training system <u>Impact Evaluation</u>	<u>Return Evaluation</u>

ROI Indicators Frame - Return on Investment in Training Evaluation Model

<u>Domains</u> X <u>Levels</u> =

<u>Main Variables</u>

{Quality of work}

{Enterprise Performance}

{Improvement of business opportunities}

{Work security}

{etc …}

<u>Each variable will be decompose at</u>
<u>ROI Indicators</u>

{Enterprise Context}

{Training Provider Context}

{Training Supplier Context}

{etc …}

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[5] Only possible in taylor made training.

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A list of indicators which can be applied during the interview/meeting for the evaluation process follows: If necessary other appropriate indicators can be added to the list.

1. Productivity and efficiency focus:
1. Results improvement per employee
2. Equipment maintenance (costs or repair time) or replacement costs
3. Production/completion time per unit (e.g. clients, projects)
4. Workforce flexibility
5. Capacity of staff to solve routine and non-routine problems (e.g. supervision time required)
6. Employees competences improvement
7. Response time (e.g. to service calls or orders)
8. Productivity of employees
9. Employees efficiency
10. Induction time for new employees
11. Increase of the employability rate after training

2. Financial focus:
1. Total capital (financial autonomy)
2. Total profit
3. Total costs
4. Human resources cost
5. Income with new business activities
6. Profit from new business activities
7. Value added /total employee
8. Value added/employee
9. Income/employee
10. Profit/customer
11. Training costs
12. Profit-product costs

3. Quality of products and services:
1. On-time provision of products/services
2. Compliance with quality, legal and/or ethical requirements
3. Achievement/maintenance of quality rating
4. Achievement of quality award
5. Conformance record with quality specifications (e.g. batch yields, throughput of invoices)
6. SME's image and reputation

4. Customer service and satisfaction:
1. Customer satisfaction levels (with timeliness, availability, quality and price of goods and services)
2. Repeat business (customer retention or loyalty)
3. Number of complaints reduction
4. More/new customers
5. New business resulting from client referrals
6. Lost business
7. Customer relationships and experiences
8. Market share

5. Occupational health and safety:
1. Reduced accidents or injuries (number, time lost, costs, premium cost/rating)
2. Safety critical incidents (number, cost)
3. Violation of safety rules
4. Improved response to crises

6. Organizational development:
1. Performance appraisal
2. Achievement of organisational competency profile requirements
3. Internal promotions resulting from employee competence and performance
4. Training awards received
5. Employee perceptions of training and development opportunities
6. Alignment with human resources, business and strategic planning

7. Organisational climate, culture and practices:
1. Employee retention(number, costs)
2. Turnover decrease
3. Recruitment
2. Absenteeism
3. Conflicts (number, cost and time lost)
4. Number of employee suggestions (submitted or implemented)
5. Employee satisfaction and motivation
6. Interpersonal relationships and commitment to team goals
7. Participation and involvement in teams
8. Team performance
9. Internal communication and information systems
10. Implementation of new work practices
11. Implementation/maintenance of a service culture

8. Innovation Indicators:
1. Innovation in products
2. Innovation in services
3. New competences to analise situations from an innovative perspective
4. Competences for the tasks planning
5. Dynamism
6. Creativity

9. Supervisor role at the transferability of knowledge to work:

1. Training needs assessment interview
2. Apprenticeship Contract
3. After training assessment interview
4. Individual Development Plan

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Facilitators Aspects

In terms of "facilitators' variables" to the application conditions of ROI Evaluation Model in enterprises, although we are aware that the reality of the SME's is often quite different, we would like to mention the ideal conditions and stress the following aspects:
- the existence of an evaluation culture,
- the construction of an organizational clime favourable to the implementation the evaluation variables and quality standards,
- a orientation to the organizational change and the leaders involvement in the process.

Effectively, the context stress also the existence of a knowledge management information system (KM) through the consolidation of the communication circuits and exchange of information between members; promotion of employees motivation; the evaluation indicators checklist; the implementation of a training strategy oriented to the develop the nuclear organizational skills and the definition of evaluation priorities.

However, this goal will be only achieved when the vocational training initiatives are conceive as an investment and not has a cost, because, many SME's leadership managers do not recognise the add-value of the training. So, the vocational training evaluation should be considered as a strategic tool which promotes the continuous improvement of the vocational training system.

4. Conclusions

The ROI Evaluation Model assembly the 4 Kirkpatrick[6] evaluation levels and the OECD guidelines about the evaluation indicators of the educational and training systems. In spite of the source relevancy, we develop some reformulations in accordance to the ROI Project demands. In fact, we introduce the concept of previous variables of the learning environments and we assume the distribution by levels and domains.

On the other hand, besides this change it is important to introduce also the process evaluation, as the meta-evaluation strategy. The first option aims at evaluate the differences between the skills before and after the training and the transferability to the application contexts, namely, the degree of applicability by vocational training modality; the meta-evaluation promotes the training process follow-up in order to guarantee the achievement of quality in the processes and techniques.

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[6]

Reactions Evaluation: Measures participant's reaction to the training program.
Learning Evaluation: Measures the extent to which participants change attitudes, improve knowledge and/or increase skills.
Behavior Evaluation: Measures the extent to which change in behavior occurs, particularly, the news skills transference to the working context.
Results Evaluation: Measures the changes in business results or the new knowledge which improve the organizational performance.

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