



TNA BEST PRACTICE in EU

This Project has been funded with support from the European Commission (LLP). This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Summary of the report

1. Introduction

2. The survey of the eTNA in 3 countries

3. How much it cost?

4. Assessment methods

5. Best practices detected around Europe:

- Austria

- Ireland

- Italy

6. Conclusion

Introduction

Training can be described as “the acquisition of skills, concepts or attitudes that result in improved performance within the job environment”. Training analysis looks at each aspect of an operational domain so that the initial skills, concepts and attitudes of the human elements of a system can be effectively identified and appropriate training can be specified.

Training needs assessment in the working field is an instrument of structured assessment of qualification needs of employees and assists the identification of areas where training is needed in the organization and in which individual employees need training relevant to their organizational and job needs. This includes a comparison between “what should be” (the target) and “what is” (the current situation/performance). The latter describes already existing qualifications and competences of employees, whereas “what should be” indicates individual training needs as well as (new) institutional requirements of enterprises.

The survey of the eTNA in 3 countries

In the framework of the eTNA projects a survey has been carried out in three partner countries: Austria, Ireland and Italy. The result has shown a common framework at European level (in these three countries), in fact on the one hand knowledge about different methods of training needs assessment exists and there are several Training Centres and Universities which carried out important research. These data **confirm that there is a growing awareness of the importance of training needs assessment in a rapidly changing world**. Nevertheless most of these analyses stop at a theoretical level and are not structured as tools for entrepreneurs and workers.

As a matter of fact there is an **absence of comprehensive models to assist those wishing to conduct a training needs analysis**, and there is a distinct lack of available online options for companies. According to research from the University of Limerick there is no such Training Needs Analysis tool that guides companies through a structured Training Needs Analysis process and allows them to tailor it to their individual business missions and goals themselves without the need for expertise (this research is from 2005).

Also most of the Austrian reports available don't deal with the industrial sector as such. One of the exceptions is a study conducted in 2006 by the industry department of the Austrian Federal Economic Chamber in Vienna¹. The training needs assessment was conducted among Vienna's 200 biggest industrial enterprises. The results of the survey indicated that the number of employees in the industry would increase about 5% during the following 3 to 5 years. It also indicated that there would be a redeployment. The losers of this change would be low-level educated and low-qualified employees.

¹ http://www.oieb.at/upload/3567_handbuch-regionale-bildungsbedarfserhebung.pdf, pages 55-62.

How much does it cost?

Those TNA tools that do exist are only available commercially and are highly industry specific and typically highly expensive. In many cases generic tools are owned by consultancy firms which tailor the tools to an individual company's needs for a large fee. For instance some Italian companies rely on a tool on payment that works with the Software H1 HRMS for the management of the human resources also containing a training needs analysis generator.

Among the few cases of on line free tool it is worth to focus the attention on the website of ISFOL, the governmental centre for employability, jobs and needs.

On the main page it is available a TNA tool for the evaluation of the competences needed for a wide range of jobs.

http://professionioccupazione.isfol.it/scheda.php?test_abilita=1&id_menu=4&id=6.4.2.2.0

Results of these tools are rather accurate but are focused on generic skills.

Assessment methods

The rules for conducting the delicate phase of the survey of training needs are many and can range from interviews (unstructured, partially structured, semi-structured, structured, fully structured, the checklist, structured observation of clearance) to the use of targeted test batteries.

The most popular method to examine the needs of professionals in Italy is the **paper questionnaire** assigned to each person.

The data of interest in a standard questionnaire are:

- Personal data
- Role in the company
- Seniority
- Field of competence
- Methodology (indicate the methodology you prefer for the training)



- Training experience (indicate if you have already done training experience and specify the kind of activity)_MULTIPLE CHOICE OR OPEN ANSWER
- Training needs (indicate the specific topics you wish to study for your professional improvement)_MULTIPLE CHOICE OR OPEN ANSWER

A second common methodology to assess the training needs is the **on line tool**:

The company set a platform for the training of its personnel with a questionnaire available containing the items of interest that the HR elaborate to select and determine the courses and the kind of training suitable for the enterprise.

Best practices detected around Europe

AUSTRIA

CASE STUDY 1: “Betriebliche Kompetenzentwicklung für Klein- und Jungunternehmen” (EN: “Business skills development for small enterprises and start-ups”)²

This project can be a useful inspiration for eTNA as it provides detailed information on training needs assessment methodology. However, as for this project it is important to be aware of copy right issues as it is explicitly stated on the website that the contents cannot be used for own purposes!

The project is a co-operation between the Institute for Business Formation and Development (Institut für Unternehmensgründung und Unternehmensentwicklung) of the Johannes Kepler University Linz, the WIFI Unternehmer-Akademie and the WKO of Upper Austria. The aim is to assess the demand for further education in small and medium enterprises. In the project, four main questions have been developed which structure the training needs assessment:

- (1) What is the field of activity of the target group?
- (2) Does this field of activity change in the future (e.g. because of new business objectives, new technologies, etc.)?
- (3) What skills and competences are necessary in this context (professional know-how, practical knowledge, methodological competences, social and communicative competences)?
- (4) Which competences are existent, which are missing, which should be purposefully developed?

Additionally, methods of training needs assessment in small and medium enterprises have been developed and are listed in detailed on the project website (in German). These methods include interviews (structured and non-structured), participant observation and moderated discussions.

CASE STUDY 2: “Bildungsbedarfsanalyse für die Umwelt und Energietechnologiebranche in Österreich”

² http://www.netzwerk-hr.at/1226_DEU_HTML.php

(EN: „Training needs assessment for the Austrian environment and energy technology sector“)³

In 2009, Florian Brence of ACT (Austrian Clean Technology) published the results of the training needs assessment which he carried out for the Austrian environment and energy technology sector. The training needs assessment consisted of several steps: screening of job descriptions, expert interviews, background research on the Austrian labour market, online questionnaires, round table discussions and analysis of ACT formation programmes. The core issue of the study was to identify future competences and skills employees in the environment and energy technology sector should possess. These competences were structured and categorized in technical competences, entrepreneurial and legal competences, language competences, IT competences and social competences.

CASE STUDY 3: “Regional training needs assessment”

In December 2009, the Austrian Institute for Adult Education and the Federal Ministry of Agriculture, Forestry, Environment and Water (Lebensministerium) organized a conference on “Regional training needs assessment – contexts and methods for application”. Training needs assessment was introduced as an instrument of systematized research on initial positions, educational needs and barriers of inhabitants and organizations of a certain region which helps to ground operational planning in the educational sector on empirical foundations. A comprehensive handbook on the topic was presented which was elaborated in the context of the program “learning regions”. This program combines the idea of lifelong learning with independent regional development and was initiated by the Lebensministerium in the framework of the European regional development program 2007-2013. On 118 pages, the handbook provides extensive information about methods of training needs assessment, thus representing a good foundation for everyone who wants to deepen his/her knowledge on the topic. The handbook (German) can be downloaded on the project website.⁴

CASE STUDY 4: Virtuelles Bildungszentrum (EN: Virtual Education Center)⁵

³ http://www.act-center.at/de/servicebox/ACT_090530_Auswertung_BefragungBildungsbedarfsanalyse.pdf

⁴ http://www.oieb.at/upload/3567_handbuch-regionale-bildungsbedarfserhebung.pdf

⁵ http://content.tibs.at/advoTRAIN/index.php?menu=1146&con_id=17433

The “Virtuelles Bildungszentrum” is powered by Tiroler Bildungszentrum and ESF. The website provides a “qualification matrix” which helps enterprises to find out which qualifications and competences their employees have and which training needs exist. Additionally, users can download a document which gives instructions on how training needs assessments can be organized in the best possible way. This description enables valuable and compact insights in the process and methods of training needs assessment.

CASE STUDY 5: “Bildungsbedarfserhebung im Fachverband UBIT (Unternehmensberatung und IT)” (EN: “Training needs assessment in the professional association UBIT - management consultancy and IT”)⁶

This study was commissioned by the WKO and conducted by Helmut Dornmayer of ibw – Institut für Bildungsforschung in der Wirtschaft (Institute for Educational Research in the Economy) in 2006. The study concludes that the training needs vary greatly depending on the occupational group, e.g. in the field of management consultancy “process skills” are more important than “professional know-how.” The study is available online (German).

⁶ <http://www.ibw.at/html/buw/bw36.pdf>

IRELAND

CASE STUDY 1: Health Service Executive – “HSELand”

The competency assessment tool will assist you in identifying your current strengths and development needs against the competency framework for your discipline and managerial level. It can be used in self-assessment as well as enabling 360° feedback on performance. A worker can input their area of competency, their specific area of responsibility, and their level within the organization. The online tool can then generate the competency framework required for the role and the participant can evaluate themselves against these. The participant can also assess co-workers (with their agreement) if they are a line manager. The system will generate reports in a number of formats. You can view your results in a variety of ways.

- My self-assessment results
- Line Manager Assessment Report - how you have been assessed as a Line manager by your Direct reports.
- Colleague Assessment – how your colleagues have assess you
- Direct Report Assessment - how you have been assessed by your Line Managers as a Direct Report.
- All roles combined - how your self-assessments compare to assessments made by your Direct Reports, Colleagues and Line Manager(s).

You then input the results into your ‘Personal Development Workbook’. Your workbook is designed as an ongoing tool to help you manage your personal development planning and you can add to it and delete from it at any time during the year.

Your workbook is split into 4 key questions: -

- A brief resume of your life history and the major events
- What does your job require of you, what are your current strengths and areas for development?
- How to use the PDP Workbook to help you achieve your future aspirations
- How are you going to achieve your future aspirations?

A learner can then develop a training plan to meet their development goals. There is a list of online training courses a learner can enroll in, and certificates of completion are issued by the Health Service Executive once every quarter.

The project has been in existence since 2005 in pilot status, and has been fully functioning since 2007. There are now over 35,000 registered users on HSELand.

“HSELand.ie is an online learning portal developed and run by the Health Service Executive. It is available to all Healthcare Professionals in the Republic of Ireland, both within HSE, Voluntary Hospital Sector, and associated NGO's working in health or allied disciplines. HSELand provides courses and learning resources for Healthcare workers in both the hospital and community health settings. Access to HSELand is available over the internet, on a secure site, and can also be accessed from within the corporate environment on HSEnet. HSELand is now recognised as the platform of choice for the rollout of training programmes that must be readily available all over the health care sector.”

HSELand has recently received the top award in the 'Education' category of the National e Government Awards. HSELand was also shortlisted in the 'Open Source Software' category. HSELand was awarded 'runner up' in the Irish Institute of Training & Development (IITD) National Training Awards in the 'Innovative use of Technology' category.

Website can be accessed at following URL: <https://www.hseland.ie/tohm/default.asp>

(Participants must log in to access tool)

CASE STUDY 2: Qualifax – www.qualifax.ie

Qualifax is the “one stop shop” for learners. It provides the most comprehensive information on further and higher education and training courses available in Ireland. Qualifax is part of the National Qualifications Authority of Ireland.

The content is divided into categories aimed at Students, Adult Learners, and Guidance Professionals. The website allows users to:

Take an 'Interest Assessment' – this gives lists of jobs, courses or activities in pairs, and the user is asked to select preferences. This gives a profile of the area the candidate may wish to work in, and recommends courses and qualifications that would need to be undertaken in order to work in this field. This profile shows a graph of your interest in seven work or career activities. The high

scores show the type of activities you are best suited to, and provide a simple of related career paths.

‘Search for a course’ - this allows the user to search for any course currently being offered in Ireland. The courses can be searched according to qualification level, course title, institution, career area etc. The key benefit of this function is that users can search for a specific level of qualification within a specific subject area.

Although this system is not a Training Needs Analysis, the functionality and information could usefully be linked to an eTNA to provide a comprehensive resource for employees seeking to upskill. The information would be constantly updated and kept current.

Screenshot of Sample Search: ‘Postgraduate Qualification – Business, in Scientific career path’

The system generates a list of courses with the institution code, title, institution, and qualification level. Users can access very detailed information about each course, and run comparisons between different courses.

CASE STUDY 3: Small Firms Association – ‘Positive to Train’

The Small Firms Association (SFA) is a national organisation representing the needs of small enterprises in Ireland. The SFA provides economic, commercial, employee relations and social affairs advice and assistance.

Their training wing is called ‘The National Centre of Excellence’. Training courses are designed for companies with 100 employees or less. As part of their training resources, they offer a free online training needs analysis.

“This toolkit is designed as a step-by-step aid to Training and Development Practitioners and anyone with responsibility for training within organisations. It will support you in developing and implementing successful Training Policies & Procedures which are aligned with the Business Strategy and Objectives.

The steps and stages in the Training & Development process are outlined along with practical tips and tools for you to use when implementing in your organisation. If you follow the stages outlined and complete the suggested exercises, you will have in place all the foundations for a successful Training & Development Strategy and Plan for your business.”

The diagnostic tool has been designed to be used by managers or owner managers of small businesses. There are three steps to the diagnostic process.

Step 1:

Four diagnostic sets of diagnostic questions are set, dealing with:

A- External Environment – considering the external environment within which your organisation is providing a service or producing a product

B- Legislative & Regulatory environment – identifying legislative and regulatory framework within which you operate

C- Internal environment – look inwards to factors occurring within the organisation

D- Potential desirable benefits – look at some of the benefits that other SMEs have achieved through training to their organisations and you see whether these would be of benefit to your organisation

Step 2:

This step consists of a structured training needs analysis model. It contains ten questions which research indicates are most common across organisations. Included in this step are tools such as SWOT analysis and a Cost-Benefit Analysis. These can be used on a group basis to conduct a detailed analysis of your business examine the cost/benefits of training.

Step 3:

This section identifies the most common barriers to training faced by SMEs. It also lists potential remedies to these barriers.

Finally, the tool can generate a Learning and Development Plan for the organisation.

CASE STUDY 4: eCASME Leonardo Project

Although not an example of current best practice, this could provide some useful foundation information for this project.

An EU funded project under the Leonardo Da Vinci program, it set out to create an online tool that enabled SMEs (Small to Medium Enterprises) to identify training needs at an individual level in accordance with the companies' business needs. With partners from Ireland Latvia, Portugal, Romania, Sweden it obtained transnational input creating a cross cultural framework. The research was then extended to take account of current e-learning authoring techniques to effectively tailor training based on business requirements.

According to their research, there are currently few online TNA tools available (2005). Those that do exist are only available commercially and are highly industry specific. In many cases generic tools are owned by consultancy firms which tailor these to an individual company for a large fee.

“Often these tools are not based on any proven Training Needs Analysis models and speculate on the best method of identifying training needs. Moreover they only identify training needs at a generic company wide level rather than at an individual level. Currently there is no such Training Needs Analysis tool that guides companies through a structured Training Needs Analysis process and allows them to tailor it to their individual business missions and goals themselves without the need for expertise.”

eCASME aimed at addressing these problems by providing a self customisable TNA tool for SMEs eliminating the need for employing expensive consultancy firms. It was based on tested TNA and instructional design models taking account of current business practices, ensuring accuracy. In addition it was built using open source software reducing the costs for SMEs. As part of this project an examination into existing TNA models was conducted, focus groups and surveys were carried out to examine the training practices in companies. Finally a case study was conducted on a company of a training needs analysis in practice. From this research a framework was developed for creating an online training needs analysis tool for SMEs. The framework was implemented in practice and the tool was tested in companies in view of its ability to accurately identify the training needs in companies and to generate relevant learning objectives based on this.

The final report of the project states:

“Current Training Needs Analysis tools are only available commercially and are restrictive depending on the industry sector the user company is active in. The tool developed as part of the eCASME project is the first open source customisable Training Needs Analysis tool that assists companies to identify and prioritise training in accordance with its own specific business needs. In addition it is the first tool that provides personalised training plans for employees taking into account best practice institutional Design Theories.”

The project was completed in 2005. The tool is not currently available online. The tool is stored on a PC at the University of Limerick in Ireland, where it may possibly be accessed. There is a



significant amount of research carried out as part of the project, although some of it will be out of date.

ITALY

CASE STUDY 1: Innovative tools to develop the TNA in the Biomedical field

A project developed in 2003 in the province of Varese (Lombardia) **focused on the innovative tools and analysis to improve the labor market.**

In this frame a new element was the importance of identifying high requested profiles and the training they might need.

A particular study was carried out on the **Biomedical field**. The most important innovative element was to **join the analysis of competences with the methodology of “Cluster” research** (taken by the *business cluster* that is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field.)

The actors involved were: Training centres; Job recruiting agencies; job counselors; high schools; the municipalities; the Institutes of welfare services.

Parts of interviews to collect data have been carried out with the Computer-assisted telephone interviewing (CATI): a telephone surveying technique in which the interviewer follows a script provided by a software application. The software is able to customize the flow of the questionnaire based on the answers provided, as well as information already known about the participant.

The project has been divided in 3 steps:

- 1) recognition of cluster
- 2) summary of results
- 3) definition of professional roles and competences required

The survey’s conclusion identified a list of profiles required and their training needs.

CASE STUY 2: Training needs assessment in the food sector

The most developed method focused on the TNA of Food Sector has been carried out by the Centre FONDAZIONE METES_ Report 2011-2014

Target group: UNION TRADES Middle managers and Executives of the agrifood sector. (13% working in the U.T; 42,2% members; 52,1% RUS representatives -RSU = Rappresentanza Sindacale Unitaria- 5,9% managers of regional/national UT secretariats.)

The project: Evaluating the TNA is often based on the research of the “gap” between abilities and competences required and actually owned by the employees.

However these approaches tends to have several weakness:

- abstractness
- rigidity of the evaluation
- make the system proposed by the company to appear as the best and the only worthy to survive
 - not considering the real problems of the end users (trainees)
 - lack of criticism
 - slowness of patterns

The final risk is **to disregard the social nature of the active parts** and the organizational rules so that the TNA is unlinked to the project phase of the training. In this project, on the contrary, **the need is represented as a social reality linked to the intentions and opportunities of the individuals.**

The Metes research addressed to:

- 1) identify the **key figures** (from the Union Trades and from the professionals of the sector)
- 2) Identify the **technical competences and the knowledge required** to carry out the roles efficiently and later identify a grading /classification expected based on each role.
- 3) **define the gap** of competences between competences expected and owned
- 4) “Translate” this gap in a **training objectives**
- 5) **elaborate a concrete training offer based on real needs**

The project has been based on direct survey with questionnaires, and also on a frame of negotiation among the educators with an active and participated analysis carried out on **moodle** that is a Course Management System (CMS), also known as a Learning Management System (LMS) or a Virtual Learning Environment (VLE). It is a Free web application that educators can

use to create effective online learning sites. **It allowed to share all the materials and documents used by researchers and trainers in real time.**

The involvement of every figure was not limited at the projection phase, but also in realization phase, through *ad hoc* seminars and finally during **the training phase through the confrontation with the trainers.**

The research was carried out in every region of Italy. Tools_ Questionnaires:

- The 1st called "New identity card" concerning anagraphical data and information about the job position and the training experience;

- The 2nd called "competences' gathering" is a **self-assessment** form divided in "**Know**", "**Know how to do**" and "**Know how to be**" (**Knowledge, ability and behavior**).

The data collected have been analyzed through the software **Statistical Package for Social Science**, with the data mining method: (the analysis step of the Knowledge Discovery in Databases process, or KDD), a relatively young and interdisciplinary field of computer science, is the process of extracting patterns from large data sets by combining methods from statistics and artificial intelligence with database management.

It was really important to build a map of specific skills focused on the food sector: From the assessment shown it was built the following training offer:

CASE STUDY 3: Training needs assessment_ workshop

The most interesting overview was given by the training centre **Infinity _ Unconventional Education**, whose staff uses 4 methods:

- 1) evaluate the TN taking into account the results of the global performance
- 2) deliver the questionnaires either to the training supervisor/ HHRR or at each employee.
- 3) make an interview to be more detailed and to identify better the specific training demands.

This is often really successful although it is more expensive for the company as it requires the trainer/counselor to make a one to one interview that can last around 30 minutes.

4) make a **workshop** about the TN involving either the supervisors or the employees (a sample of 30%). The group works on the analysis of the company and gives subsequently an OUTPUT. The method is highly successful as it involves actively the participants although it can



be more difficult for the trainer to manage the different demands. It is mostly used to involve the employees most reluctant to attend a training course.



Conclusion

This means that the eTNA tool can bring added value to SMEs in assessing and defining their training needs; particularly, as the tool development is co-funded by the EU and partner organizations and will be available to public free of charge.