

PROFESSIONAL DEVELOPMENT

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Summary

The article deals with the different aspects of capacity building programs with particular attention to projects whose goal is to obtain professional development in a specific sector.

It is not very clear how to define a project of professional development, and in fact this concept is not always the same. It is necessary to underline the significance of professional development to throw light on the specific points to be contained in a project for professional development.

First of all professional development consists in increasing levels of specialization and only secondly in enlarging areas of competence. These two things, increase and enlargement, are achieved through the step-by-step acquisition of new knowledge, experience and abilities in relation to economic, technical, organizational and social variables that affect work processes.

The changes in the water industry sector have caused new needs of training which call for innovation in training projects, starting with a deep training needs analysis.

Following the analysis of training needs, the concept of "lifetime education" should be put into practice with the development of remote didactic and training methodologies which allow problems related to space, distance and time constraints to be overcome.

The importance of professional development in the water sector is strictly related to the role that professional figures, such as engineers and high level technicians, have to play in co-operation activities with public and private companies for water management.

High level professional figures have to be able to co-ordinate their operative activities with the requirements of management authorities, not only in the fields of managing water resources but also in the fields of training, research and dissemination of information and results.

A particular effort in professional development training programs in the water industry sector should be addressed to strengthen the co-operation ability and dialogue facility among people involved at different levels and sectors in water resources management.

1. Professional Development in a Capacity-Building Project

Capacity building in environment education means developing an infrastructure to support programs and initiatives both on national and local level. A capacity-building project can involve:

- leverage of resources in support of educational programs;
- increases in networking and communication;
- stimulation of co-operation;
- training and follow-up support to achieve professional development.

Of the above mentioned areas involved in capacity building, this article will address activities related to professional development.

Professionalism can be interpreted as the combination of abilities and knowledge that enable an individual to satisfy specific work requirements. The job market should provide professional figures that meet changing industrial and production requirements, changes that naturally also occur in the water industry sector.

Training systems are therefore essential in order to guarantee the professional development that satisfies the continuously increasing and changing requirements. Ideally, in a capacity-building project, training activities should include:

- teacher training;
- professional training;
- leader training.

All these activities for professional development address individuals that have achieved a highly qualified work level with a background of studies and work experience of several years. In the water sector this means that professional development involves executives and engineers in charge of water distribution systems, sewerage systems, treatment plant and customer care.

The concepts of professionalism and training are strongly related.

The analysis of current work requirements in the water sector should lead to a review of training models with the aim of enabling training systems to provide actually required professionalism.

In this context it is clear that education should not concentrate upon traditional concepts of job and duty training, since industrial changes cause work activities that are no longer characterized by the accomplishment of specific tasks but by a composition of different tasks.

Consequently training for professional development should provide a background of knowledge that enables the individual to carry out not just a single task but an area of tasks and should develop management abilities to be applied to his own area of responsibility.

1.1. What is Professional Development?

A simple definition of professional development could be the following:

First of all professional development consists in increasing levels of specialization and only secondly in enlarging areas of competence. These two things are achieved through the step-by-step acquisition of new knowledge, experience and abilities in relation to economic, technical, organizational and social variables that affect work processes.

But to define professionalism completely, it is necessary to identify some interpretative categories not influenced by time factors, but able to evolve and adapt to new and different situations in the working field.

The selected categories can find application in different sectors and areas of production activities:

- 1) activity
- 2) autonomy
- 3) inter-relation

The first category (activity) includes the following: execution, tool and engine operation, operative organization, testing, checking, detection of defects of processes and/or products.

The second category (autonomy) includes the following: interpretation, evaluation, decision making, programming, maximum exploitation of work force capabilities, taking the responsibility upon oneself.

The third category (inter-relation) includes the following: the receiving – giving of information, co-operation, comparison, discussion.

The concepts that define the three categories give exhaustive explanation of their use and their application.

The concepts related to the category activity show what a person “does or could do” in a possible future. A superficial approach might mistakenly think that this category includes elements of a low level of professionalism or routine elements in a job description.

Actually this is not true; in fact, the complete description of activities represents the first and essential interpretation of critical points in evolving and developing a job context. The use of the category activity allows the correct understanding of what is changing in the work organization, and how, and what is emerging in work organization and in production structure.

The concepts related to the category “autonomy” show “how an activity is done or should be done” referring to different possibilities in the job context.

This category includes all the elements related to information management and responsibility at different levels.

The concepts related to the category “inter-relation” include all the actions related to the “sociality” of work, which are all the opportunities of inter-action among colleagues. Particularly for the concept of discussion it is important to underline the possibility of a debate between two persons without taking into account their job level.

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Interesting Web Sites on education and professional development:

<http://www.epa.gov> [this Web site provides interesting information about several initiatives concerning environmental education, including training opportunities]

<http://www.uwsp.edu> [this Web site provides interesting information about several initiatives concerning environmental education, including training opportunities]

<http://www2.trainingvillage.gr> [this Web site provides interesting information about several initiatives concerning education and training in different fields]

Biographical Sketch

Dr. Stefania Zaccolo, biologist, was born 1964 in Cagliari, Italy. She has obtained the degree in Biology at the University of Cagliari in 1989. After her degree her specific training in the water sector has continued with numerous experiences of collaboration and placements at several universities and research institutes in Italy and abroad (Nancy (France), Barcelona (Spain), Jerusalem (Israel), Florida (U.S.A.)). From 1991 onwards she is employed as senior researcher at HydroControl – Research and Training Centre for Water Systems Control – in Cagliari, Italy, where she is mainly involved in planning of training activities, coordination of staff involved in training, monitoring of achievement of training goals. Her experience includes coordination of training projects for managers and technicians in the water sector, technical assistance in projects aiming at the improvement of water resources management with particular attention to waste water treatment and reuse, teaching in professional training courses as expert in the training sector both in Italy and abroad, planning and management of international training projects. From 1991 – today she has contributed to several conferences and published several publications specifically related to training in the water sector.