Professional training needs and evolutions in water utilities

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Educational practice

Education is defined as the process where a synthesis of two activities are performed: teaching and learning; It is also understood as a practice that has two effects: training and formation.

Training is defined as the acquisition by students of concepts, methods, information, etc., that will enable its performance in a given activity.

The formation involves the acquisition of attitudes, norms, values, and ethical and moral code; that is to say, acquisition of an attitude.

Educational practice

Effect of training

Effect of formation

Person transformed that integrates to the social structure and occupies a place in economic production and social relation
The Mexican Institute of Water Technology (IMTA) works in three different lines in what regards to develop human capital:

✓ Certification of labor skills

✓ Continuing education

✓ Postgraduate studies

That means the IMTA covers whole spectrum of possibilities, from technicians who need certify his skills, professionals who need continuous education in order to improve his productivity, and others professionals who have the inspiration for postgraduate studies.
Certification of labor skills

The aim is to promote the **development of human capital**, by strengthening their knowledge, skills and abilities that allow **certify their labor skills** based on a **standard of competence**, according to the roles they play in their field of work.

Capacity building of staff is a key element to boost the country's competitiveness. The IMTA promotes competency certification in the water sector in order to increase the competitiveness and quality of utilities in the provision of water services in Mexico.
**Continuing education**

Classroom training program, open to the public and aims training of human capital in the water sector through disseminating technological knowledge and experience of researchers IMTA.

**Certified process in ISO 9001: 2008**

Preparation and development of teaching in response to a specific request of interested parties, which can be developed either in Jiutepec training center or at the place designated for the courses.

[www.imta.edu.mx](http://www.imta.edu.mx)
Train highly qualified human resources in research and technological development, with a integral and multidisciplinary knowledge, able to contribute to the sustainability of water resources and their associated natural resources.
Postgraduate Programs IMTA

**UNAM-IMTA**

- Master and PhD* (Presencial)
- Master of Water Sciences** (Semi-presencial)
- Integrated water management*** (Distancia)
- Master of Sciences and Technology of Water**** (Presencial-new design)

**IMTA**

- Hydraulic engineering
- Environmental engineering
- Integrated water management
- Operational Hydrology and Meteorology
- Hydrology and Meteorology
- Engineering and hydraulic services
- Environmental Systems

- *Pertenece al PNPC
- ** Fondo Sectorial CONAGUA-CONACYT
- *** Nueva creación, 2015
- **** Ofrece becas IMTA a partir del 2014
Conclusions

The demands of services in the cities are growing and it is will continue.

In this way it is necessary to build, operate and maintenance the infrastructure, and for to do this is necessary to have human capital.

At the same time, is required track and measurement the impact of human capital formation in order to determine the benefit of the actions taken.
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