

## In-Service Teacher Training in Portugal: Objectives, Organization and Impact on Teacher's Career

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### Abstract

*This paper presents a short overview of teacher's training as considered by the Portuguese legislation: (i) initial teacher education (ITE), (ii) specialized training and (iii) in-service teacher training. A particular emphasis will be given to in-service teacher training. Nowadays, ITE corresponds to level 7 of the European Qualifications Framework (master degree). It is a career-long professional development, where research-based and in context practice are important features. Specialized training is intended to provide qualification in complementary educational functions, such as special education, school administration and inspection activities, socio-cultural animation and basic education for adults. In-service training or continuous training allows teachers to complement, deepen and update their knowledge and professional competences. Its accreditation, in what concerns involved institutions, training actions and evaluation process is centralized in the "Conselho Científico-Pedagógico da Formação Contínua" (Scientific and Pedagogical Council of in-service training) and has a direct impact in teacher's careers, being one of the factors considered to access mobility and progression.*

### 1. Introduction

According to the Portuguese legislation [1], teachers' training is organized in three different categories: (i) Initial training, (ii) Specialized training, and (iii) In-service training.

Presently, and following the Bologna process, ITE programmes in Portugal have been restructured and a Master degree is required to ingress teacher profession. For subject teachers, where chemistry teachers are included, ITE follows a consecutive model; being professional qualifications acquired in a 2nd cycle, after a 1st one subject oriented. This second cycle is provided only by universities. Exemplifying, chemistry teachers must attend a subject oriented first cycle (3 years, 180 ECTS) followed by a second cycle (master) mainly focussed on professional qualifications. The second cycle entitled "Education in Physical-chemistry Sciences" (2 years, 120 ECTS) aims to qualify teachers, both in physics and chemistry sciences, to teach basic (3th cycle) and secondary education levels [2]. To access this second cycle applicants need to have 120 ECTS in the two subject areas (physics and chemistry) including no less than 50 ECTS in each of them. Examples of the first cycle could be Chemistry, Physical-Chemistry Sciences and Biochemistry, among others. This second cycle will provide training in physics and chemistry didactics, as well as, in educational psychology. More details concerning ITE in Portugal can be consulted in a previous work [3].

Specialized training aims to provide qualification in complementary education functions. According to [4], they can be summarized as follows: (i) Special Education (provided by adequate Higher Education Institutions); (ii) Administration and inspection activities in schools, socio-cultural animation, basic education for adults, among others, having in mind the development of the education system (provided by Higher Education Institutions).

In-service training, or continuous training, allows teachers to complement, deepen and update their knowledge and professional competences. This topic will be subjected to a deeper analysis in the next sections focusing on the following points: (i) General objectives and organization; (ii) Methodologies and evaluation (iii) Impact on professional career and (iv) The "Chemistry is all around



network project” teacher’s view. The contents of this section are based on the following legislation/regulations:

- Legal Regime of in-service teacher’s training regulated by Decree-Law 249/92 of November 9 [5]. (with modifications introduced by Decree-law 60/93 of August 20 [6], Decree-law 274/94 of October 28 [7], Decree-law 207/96 of November 2 [8], Decree-law 155/99 of May 10 [9] and Decree-law 15/2007 of January 19 [10]);
- Order 14420/2010 of September 15 [11];
- Regulatory Law 2/2010 of June 23 [12];
- Teaching Profession Career Code for infant, primary and secondary education, Decree-law 41/2012 of February 21 [1].

## 2. In-service training

### 2.1. General objectives and organization

In general terms, in-service training intends to provide updating, improvement, conversion and support to teaching professionals along their careers. Its planning must promote the development of professional skills. The formation plans can be drawn by schools considering their own training needs diagnosis or might simply result from an individual initiative of the teacher.

In-service training actions are conducted by training bodies accredited by the *Conselho Científico-Pedagógico da Formação Contínua (Scientific and Pedagogical Council of in-service training)* (CCPFC), headquartered at the University of Minho (Braga, Portugal). Examples of these training bodies are:

- Training centers associated with school associations (CFAE);
- Higher education institutions;
- Training centers of professional or scientific non-profit associations;
- Occasionally, the central services of the Ministry of Science and Education;
- Other non-profit private or public entities and cooperatives accredited for this purpose.

Given the current economic situation there is at present no governmental funding to support in-service training. Although several HEIs are able to offer a wide range of paid formation packages, the search for these actions is decreasing, partly justified by the CFAEs work trying to address the most urgent needs of their associated schools. In this context, free training is being offered thanks to:

- Endogenous school resources. Some accredited teachers make themselves available to provide training to their colleagues;
- The existence of protocols and partnerships with other entities within the framework of training programs.

### 2.2. Methodologies and evaluation

Most of the training actions correspond to face-to-face classes; however there is a progressive change of paradigm due the progressive consolidation of ICT use. As so, the online format through e-learning and b-learning modalities is becoming a current practice, not only because of its effectiveness but also as a way to address financial, space and time constraints.

The evaluation of the actions is compulsory and must be accredited by the CCPFC. The final classification must be expressed qualitatively (insufficient to excellent) corresponding to a final ranking on a scale comprised between 1 and 10 values. The evaluation accounts with the teacher performance but also with assiduity. Specifically, certification should not be given if the participation is below two-thirds of the training length.

### 2.3 Impact on professional career

Among other factors, to access progression, teachers must attend, with success, in-service training or specialized training actions during the cycle under evaluation. Specifically, they need to have accredited 25 hours in the fifth step of the teaching career (= 1 credit) and 50 hours in the others (= 2 credits).

As so, to access progression, teachers have obligatorily to attend in-service training actions, accredited by CCPFC, up to the required number of hours, irrespective of attending other non-accredited training actions such as colloquia, conferences, seminars or workshops. Moreover, it is



mandatory that part (at least 50%) of the attended training lies in actions within the appropriate scientific area.

Actions are in accordance with the teacher's scientific area if they fall directly into the taught curricular contents, especially if they have direct application in the classroom; or actions aimed at updating/improve teaching learning practices whether for updating and improving specific didactics, the use of new materials or educational equipment. In this context, the actions, having as purpose to develop experimental education, are also considered.

#### **2.4 The “Chemistry is all around network project” teacher’s view**

In the context of the “Chemistry is all around network project”, and concerning the topic “in-service training” the involved teachers expressed their opinion as follows:

- In-service training is essential to promote teacher’s actualization. Concerning the specific region of Bragança they pointed out a lack of offer in what concerns experimental chemistry training. In that context, the IPB project team promoted the organization of a training action in cooperation with the CFAE-Bragança.
- Most of the involved teachers have attended ICT related courses but not specific for chemistry teaching. A special emphasis was put on the use of ICT resources and the way they can be connected to experimental activities in the laboratory. It was found interesting to develop orientated guides to support the use of ICT resources, either as an introduction to the experimental activity or as a tool to consolidate knowledge. More, it was found important to offer training focusing this duality ICT-experimental activity.
- Several topics for in-service training actions were focused. Among them, technological subjects such as “Environmental chemistry”, “Food chemistry”, “Polymer technology” and “Cosmetic chemistry” were referred. “Analytical chemistry”, particularly, the use of analytical equipment, was also mentioned. Moreover “Chemical sensors”, “Nuclear chemistry” and “Green and sustainable chemistry” were pointed out as pertinent topics in view of the current “chemistry in context” programs.

### **3. Final considerations**

Regardless the number of credits required for career progression, in-service training is crucial for teaching in the current education context ensuring teacher’s knowledge update and skills development. This must be perceived by all teachers who must face training as an intrinsic and essential need to encompass the rapid world’s modification with impact on teaching activity. Gone are the days where ITE formation was enough to support a career. Today, quality standards claim for updated professionals strongly committed with independent learning in a "lifelong learning" concept. This is an efficient way to respond to the requests of the actual educational system.

### **References**

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