

Maria de Fátima Goulão  
Universidade Aberta, Portugal  
[maria.goulao@uab.pt](mailto:maria.goulao@uab.pt)  
[fatimapgoulao@gmail.com](mailto:fatimapgoulao@gmail.com)

## **The elearning as a response to social challenges: Portrait of a situation**

### **Abstract**

The profound and rapid changes in our society require challenges and timely responses from people and official institutions. Recycling in training and the need to acquire new skills has become a reality. It is in this conjuncture that Distance Learning and Elearning, in particular, have become essential allies of people and institutions.

Due to new legal orders to teachers of different levels of education training requiring the attendance, with success, of an appropriated pedagogic training course by the end of the school year of 2012/13, many of these professionals saw their job post concerned.

Universidade Aberta was called to carry their social role. UAB has established a protocol with the Ministry of Education, outlined a training course and has been forming these professionals. Since its start it has already certified 1828 teachers in various scientific areas guaranteeing them the opportunity to continue to practice their career.

Keywords: elearning, social challenges; lifelong learning

### **The challenges of contemporary society**

The constant changes that society has experienced have consequences at different levels. To citizens are required new skills so that they can address these challenges. Thus, these changes lead to a constant search for answers to the new "needs" that are presented to people, especially at the professional level. The training that each one gets, in a certain period of their life, quickly becomes insufficient or inadequate. The acquisition of new knowledge and, in particular, new skills has become an imperative of contemporary societies.

Increasingly education and training have become key elements for the development of societies, whether from a cultural point of view, but also social and economic. It is in this context that the Lifelong Learning emerges as an imperative for people to develop, renew and recycle skills to participate in a constructive and fulfilling life in the society in which they operate.

It was with this objective that targets were defined for Education, in the European Council, in order to endow individuals with key competencies that will enable to insert themselves in an appropriate manner in the society and may also contribute to its development.

We know that this is not an easy task due to numerous factors that converge with each other. The constant changes, the low level of qualifications, the differences between the various European countries, among others, require a constant effort that these differences are blurred and do not verify the hypothesis of social exclusion but rather enhanced social cohesion.

The International Commission on Education for the Twenty-First Century (1996), in their report to UNESCO, identified four key pillars for education: *learning to know, learning to do, learning to live together and learning to be* (p.31).

The concept of learning in general and learning to learn, acquire a major role in contemporary society, the knowledge society. According to Carneiro (2003), the information society has raised awareness and knowledge to the category of motor elements of the entire economy (p.268). For this author, education is the great instrument of freedom and autonomy, because it allows individuals to participate more actively in society, making conscious and participatory citizens.

Morgan-Klein & Osborne (2007) tell us about some aspects which stimulated the development of lifelong learning. For them, globalization compels governments to respond to their challenges, and the competitiveness of a nation depends on the competencies of those who work, who must be responsible for enhancing their skills. Institutions and educational systems must be prepared to become more efficient and give more adequate answers.

We have now an almost permanent and immediate access to information through the *media*, particularly the *Internet*.

In the report mentioned above also speaks on education throughout life. This is seen as *the key that opens the doors of the XXI century, it eliminates the traditional distinction between formal initial and continuing education. Moreover, converges toward another concept frequently proposed: the "educative society" in which everything can be an opportunity to learn and develop the talents* (p. 32). The authors of this report recommend that this type of education should take advantage of all the opportunities that society makes available to its citizens.

When we are referring to the Lifelong Learning we cannot just stick to the increase of qualifications for low skill workers. This concept is broader. Also qualified workers need to upgrade, recycle and acquire new skills and qualifications to enable them to perform their function in a more effective and productive way.

It now becomes imperative that the world of education is in tune with the world of work. In other words, that the training that people acquire, within the formal education system, is adequate to meet the demands of the labor market.

It is in this context that the European Commission's Memorandum (2000) on the *Lifelong Learning seeks to highlight the key elements for a correct development and definition of this concept, and that lifelong learning is no longer just one aspect of education and training, it must become the guiding principle for provision and participation across the full continuum of learning, regardless of the context* (p. 3).

In short, the changes that were felt from the 70's, whether at the level social, economic and technological, have repercussions on a global scale. Markets and societies become more competitive and, therefore, new challenges, new demands and new needs are placed. To all this the field of education has not been apart. These changes require other knowledge and other competencies that help them find effective and appropriate responses at this conjuncture. In other words, to prepare their citizens for these realities not only in the construction of an immediate response, but rather, that the dowry skills to know how to build your knowledge, providing strategies for self-regulation of their learning, promoting more active learners and engaged in the process, and thus play a central role in the process.

As would be, this entails changes in education at different levels. Along with this need to change it recognizes a variety of ways to promote this education to meet these challenges.

### **The Elearning in current society**

Usually associated with the concept of lifelong learning is an adult population with a professional and family life established, that need a flexible system that reconciles the different areas of their life. According to Morgan-Klein & Osborne (2007), the flexibility is a key element in the speech associated to lifelong learning.

So, the geographical dispersion, as well as personal, family, economical or medical factors made the distance learning an education system, that is an important ally for the formation and the development and of the individuals and, as a consequence of the societies, whether we are talking about a more traditional system or a system with a strong emphasis in the information and communication technologies (Goulão, 2010).

According to Morgan-Klein & Osborne (2007), ICT in the process of lifelong learning present two key elements – social inclusion and economic competitiveness. Social inclusion because it allows the formation of people in in geographically dispersed locations. Economic competitiveness as it reduces loses and allows collaborative work with other people, regardless of time and place. The use of technology leads to new work and organization contexts that reinforce the interaction and collaborative work between people and institutions worldwide. This way, it opens doors to new realities, new opportunities and new ways of being.

It is necessary to adopt strategies of knowledge promotion that have the objective of production autonomous subjects, socially responsible and competitive in a job market, more and more, specialized.

According to Sánchez (2008, in López-Barajas, 2008) the learning mediated trough technology allows new opportunities of formation in different multicultural and intercultural contexts.

Modern technological media became a powerful ally in lifelong learning to enable people with a personal, family and work active life to continue their education because of the flexibility of time, space and rhythms that they provide.

The integration of ICT in the education is a complex process that depends on multiple factors and on several orders. The growing need to update knowledge and to reconcile this with the different aspects of life have made the distance education, in general, and ICT in particular, a powerful ally.

The technologies of information and communication are highlighted in our society in various areas and, in particular, in the education field. It's important to know which alterations arise in this field, with this use.

The e-learning may contribute to make the learning process more attractive to students and to create learning environments richer, where students are more active in the building their knowledge. E-learning, in a broader view, must be understood as change in the learning culture. It's extremely important to know the factors that are implicit in the way the knowledge is built in this environment, as well as the ones that difficult or help the process and the relevant conditions that contribute to the refereed process.

Because its characteristics and the way of structuralizing the education, the necessity to rethink the concept of learning and the way of equating it, leading to the search of a new pedagogical paradigm, that was more adjusted and that respond to the existing necessities appeared. Allied to this methodological alteration, it was an alteration of mentalities and roles of the intervenient in the process.

In all this transformation three key concepts to these virtual environments arise: adaptability, mobility and cooperation (Coll & Monereo, 2008).

The student finds in this format a bigger flexibility, which allows him to reach goals that he couldn't reach in another way. The acquisitions are placed in different levels: At formal knowledge level and at personal level. In the last case, with the development of autonomy, of critical sense and of collaborative work.

## **A particular case**

### ***The context***

For normative imperative (Decree-Law n ° 20/2006 of 31 January, of the Portuguese Law) teachers need to, beyond the scientific competences, acquire professional competence by the end of the school year 2012/2013. This means that, according to the law in force, the professional qualification required for competition to which the teacher candidate, is requisite for admission to the competition. Thus, all teachers who did not possess this professional qualification, regardless of the number of years of service, would be excluded from the competition. Despite many efforts to overcome this situation was still a significant number of teachers who was to exercise their profession without this requirement. In addition, some professional groups, including the recruitment of Group 550 - Informatics that never had the chance to make their professionalization. Many other teachers from different recruitment

groups also failed to perform their professionalization for various reasons among them we highlight the incompatibility of schedules or inaccessibility in geographic terms.

Thus, for responding to this need and enable numerous teachers who, in some cases, with a significant number of years of service, the bet was in a distance course model. After negotiations between Universidade Aberta and the Teachers Union has established a Cooperation Protocol between these two entities. The same was signed by both parties, in February 2009.

After signing the Protocol, negotiations were launched with the Ministry of Education, at the level of the Secretary of State for Education to be recognized, formally, the course of professionalization in service, offered by Universidade Aberta. This fact came to pass having been established according to the Ministry of Education which led to Decision No. 10151/2009, which enabled the 1st Course Professionalization in service administered by Universidade Aberta.

After this, and since the need was verified to continue to be true, there were new editions of course, always with the approval of the Ministry of Education, with the appropriate Decision which imposes the conditions of access. Thus, they were only able to access the course of professionalization in service, teachers who had, at the time of enrollment in the course, qualification to own teaching and had at least 5 full years of teaching service at the end of the school year that the course reported.

After the conclusion of the course, Directorate General of Human Resources of Education proceeds to approval the training so that teachers can, in this way, be able to be admitted to the competition.

### ***The challenge***

Universidade Aberta, based on their experience at this level, has designed a course that aims to provide the necessary training to the professionalization of those teachers who, despite being in active, did not meet this requirement. The same lasts for one academic year, divided by 2 semester and a total of 40 ECTS.

As it happens at the beginning of any course at Universidade Aberta, this is preceded by a module setting that aims acclimate the student to the virtual context and the e-learning tools and allow them to acquire skills for online communication and social skills necessary to build a virtual learning community (Course Guide, p.2).

The course consists of the following curriculum:

**Table 1** Curriculum of the Course of Teacher Professionalization

|             | <b>Curricular units</b>                                     | <b>Working time (hours)</b> | <b>ECTS</b> |
|-------------|-------------------------------------------------------------|-----------------------------|-------------|
| common core | Ethics and Education                                        | 156                         | 6           |
|             | Practices and Technologies of Information and Communication | 130                         | 5           |
|             | Models of Educational Evaluation                            | 156                         | 6           |
|             | Conflicts Management in School                              | 156                         | 6           |
|             | Principles of Didactic                                      | 156                         | 6           |
|             | Education and Society                                       | 156                         | 6           |
|             | <i>Practice Seminar</i>                                     | 130                         | 5           |

All curricular units, except Practices Seminar, are common to the different areas of specialization. The Practices Seminar differentiates the different disciplinary groups and has particular characteristics. The same, as we said earlier, is organized according to disciplinary group of the student and is accompanied by a teacher of that specific area and who has the same profession. Furthermore, it can only be accomplished through continuous assessment. All other curricular units are developed in accordance with the virtual pedagogical model of Universidade Aberta, for the 1st Bologna cycle. That is, each curricular unit is structured around its Plan of Curricular Units, where we can find training activities of self-regulated learning and their respective answers, Student forums for discussion, between themselves, about programmatic content (unmoderated forums by the teacher) and Forums of Questions (moderated by the teacher responsible of the curricular unit). These are available at certain times of the learning process.

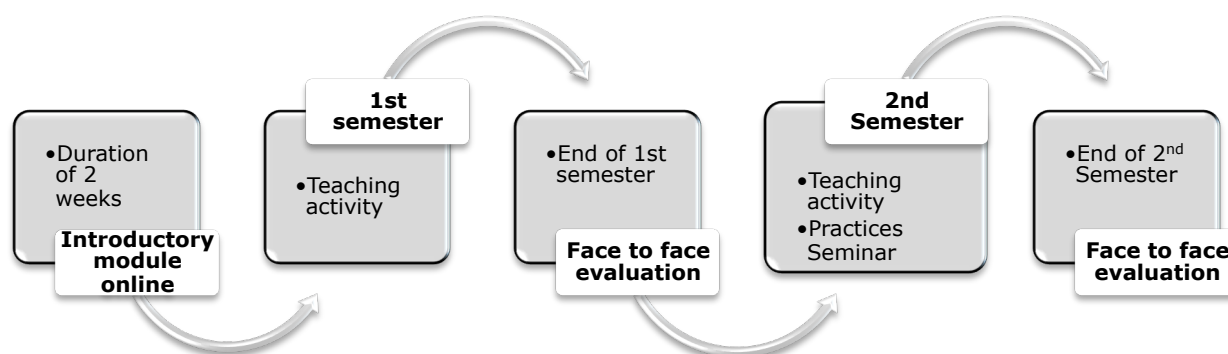
In terms of assessment, students are impelled to take a decision regarding the type of evaluation that best fits their way of working and taking into account their availability.

They have to make it up to 3 weeks after the start of the activity. At this level, they have two options:

- a. Final Evaluation** - Moment unique of evaluation through Exam at the end of the semester;
- b. Continuous Assessment** - There are three stages of evaluation. Two of these moments are performed during the semester (at distance) and a moment at the end of the semester (face to face).

There is some flexibility regarding the distribution of curricular units per semester, and the curricular unit of Practices Seminar has always its allocation in the 2nd semester.

**Figure 1** Development of the course



In terms of the formal aspects of operation of the course, and as provided for all courses of this institution, it has, on the one hand, an online secretariat that seeks to respond directly to administrative issues or refer the student to the sector over appropriate to their needs. On the other, a coordination of the course, which seeks to address pedagogical issues and to bridge the gap with the teachers of the course. Both the secretariat and the coordination have forums of news and doubt, the last one being to exchange messages with students. It works completely online.

After this analysis of the constitution and development of the course we will go to it in terms of results.

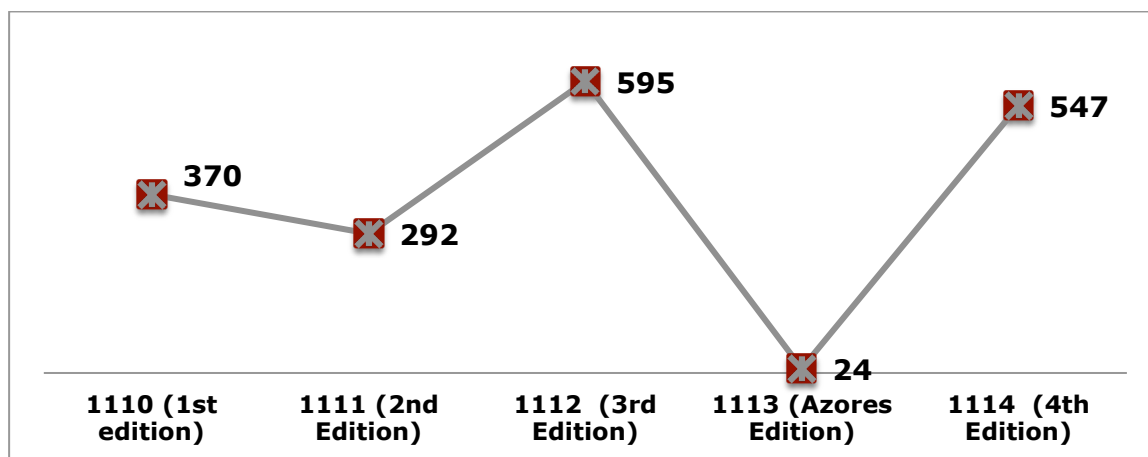
### ***The answer***

Since its beginning in March 2009, the Course of Teacher Professionalization in service is currently in its 5th edition.

Until now, through this course, Universidade Aberta has given formation, at the level of professionalization, to a total of 1828 teachers from different areas. This number will change in the end of this school year, when students who are to perform the 5th edition complete their formal qualifications and students of the 4th edition have not completed their training in the normal period.

Graphic 1 gives us the number of teachers who obtained their formation, at the level of professionalization in the different editions in which the course was in running.

**Graphic 1** Results by editions of the Course



As mentioned in the previous point, the course beyond their common core, has a Practice Seminar that gives specificity to the level of knowledge area, to the formation acquired and that will allow the teacher to practice their profession in that field. The areas in which training was provided are listed in Table 2.

**Table 2** Disciplinary groups Seminar Practices

|                                                   |
|---------------------------------------------------|
| Group 200 - Portuguese and Social Studies/History |
| Group 210 - Portuguese and French                 |
| Group 220 - Portuguese and English                |
| Group 230 - Mathematics and Natural Sciences      |
| Group 240 - Visual and Technological Education    |
| Group 250 - Music Education                       |
| Group 300 - Portuguese                            |
| Group 320 - French                                |
| Group - 330 - English                             |
| Group 350 - Spanish                               |
| Group 400 - History                               |
| Group 410 - Philosophy                            |
| Group 420 - Geography                             |
| Group 430 - Economics and Accounting              |
| Group 500 - Matematics                            |
| Group 510 - Physics and Chemistry                 |
| Group 520 -Biology and Geology                    |
| Group 530 - Technological Education               |
| Group 540 - Electrotechnology                     |
| Group 550 - Informatics                           |
| Group 560 - Agricultural Science                  |
| Group 600 - Visual Arts                           |
| Group 610 - Music                                 |
| Group 620 - Physical Education                    |
| Group M26 - Canto                                 |
| D 01 - Classical Dance Technique + Pontas         |



|                             |
|-----------------------------|
| D03 - Dance                 |
| D04 - Coreographic Creation |

At level of Group 610 we find different variations according to the type of instrument concerned.

All these seminars were taught by teachers who practice their profession in disciplinary group and level of education to which it is intended. To this end, Universidade Aberta has hired teachers and gave them the necessary training, at the level of your virtual pedagogical model, so that they were able to be autonomous in managing their virtual class.

Table 3 summarizes, in numerical terms, the number of teachers who obtained their training in terms of professionalization, for edition and group disciplinary.

**Table 3** Results by edition and disciplinary group

| <b>Groupe</b>                                     | <b>Course for the Professionalization in Service</b> |                               |                               |                          |                               | <b>Total</b> |
|---------------------------------------------------|------------------------------------------------------|-------------------------------|-------------------------------|--------------------------|-------------------------------|--------------|
|                                                   | <b>1110<br/>(1st Edition)</b>                        | <b>1111<br/>(2nd Edition)</b> | <b>1112<br/>(3rd Edition)</b> | <b>1113<br/>(Azores)</b> | <b>1114<br/>(4th Edition)</b> |              |
| Group 200 - Portuguese and Social Studies/History | 38                                                   | 38                            | 21                            | 4                        | 52                            | <b>153</b>   |
| Group 210 - Portuguese and French                 | 4                                                    | 3                             | 4                             | 0                        | 3                             | <b>14</b>    |
| Group 220 - Portuguese and English                | 11                                                   | 3                             | 5                             | 0                        | 8                             | <b>27</b>    |
| Group 230 - Mathematics and Natural Sciences      | 35                                                   | 16                            | 14                            | 0                        | 26                            | <b>91</b>    |
| Group 240 - Visual and Technological Education    | 8                                                    | 3                             | 4                             | 1                        | 6                             | <b>22</b>    |
| Group 250 - Music Education                       | 2                                                    | 7                             | 5                             | 1                        | 6                             | <b>21</b>    |
| Group 300 - Portuguese                            | 9                                                    | 8                             | 7                             | 0                        | 5                             | <b>29</b>    |
| Group 320 - French                                | 3                                                    | 2                             | 2                             | 0                        | 2                             | <b>9</b>     |
| Group - 330 - English                             | 16                                                   | 12                            | 7                             | 0                        | 9                             | <b>44</b>    |
| Group 350 - Spanish                               | 1                                                    | 3                             | 1                             | 0                        | 5                             | <b>10</b>    |
| Group 400 - History                               | 13                                                   | 6                             | 5                             | 1                        | 12                            | <b>37</b>    |
| Group 410 - Philosophy                            | 4                                                    | 2                             | 6                             | 1                        | 5                             | <b>18</b>    |
| Group 420 - Geography                             | 1                                                    | 0                             | 6                             | 0                        | 2                             | <b>9</b>     |
| Group 430 - Economics and Accounting              | 33                                                   | 32                            | 72                            | 2                        | 63                            | <b>202</b>   |
| Group 500 - Matematics                            | 16                                                   | 8                             | 13                            | 0                        | 43                            | <b>80</b>    |
| Group 510 - Physics and Chemistry                 | 11                                                   | 12                            | 25                            | 0                        | 14                            | <b>62</b>    |
| Group 520 -Biology and Geology                    | 2                                                    | 4                             | 2                             | 0                        | 1                             | <b>9</b>     |
| Group 530 - Technological Education               | 12                                                   | 17                            | 35                            | 2                        | 29                            | <b>95</b>    |
| Group 540 - Electrotechnology                     | 5                                                    | 9                             | 29                            | 0                        | 64                            | <b>107</b>   |
| Group 550 - Informatics                           | 18                                                   | 53                            | 235                           | 8                        | 95                            | <b>409</b>   |
| Group 560 - Agricultural Science                  | 4                                                    | 3                             | 7                             | 0                        | 7                             | <b>21</b>    |
| Group 600 - Visual Arts                           | 22                                                   | 11                            | 33                            | 4                        | 41                            | <b>111</b>   |
| Group 610 - Music                                 | 0                                                    | 9                             | 8                             | 0                        | 11                            | <b>28</b>    |
| Group 610 - Music - M01 - Accordion               | 0                                                    | 0                             | 0                             | 0                        | 2                             | <b>2</b>     |
| Group 610 - M04 - Clarinet                        | 5                                                    | 2                             | 3                             | 0                        | 2                             | <b>12</b>    |
| Group 610 - Music - M06 - contrabass              | 0                                                    | 1                             | 0                             | 0                        | 0                             | <b>1</b>     |
| Group 610 - Music - M07 - harpsichord             | 0                                                    | 0                             | 1                             | 0                        | 0                             | <b>1</b>     |

|                                                       |            |            |            |           |            |             |
|-------------------------------------------------------|------------|------------|------------|-----------|------------|-------------|
| Group 610 - M08 - bassoon                             | 2          | 0          | 0          | 0         | 1          | <b>3</b>    |
| Group 610 - M09 - transversal flute                   | 5          | 3          | 3          | 0         | 1          | <b>12</b>   |
| Group 610 - M11 - Guitar                              | 7          | 4          | 1          | 0         | 1          | <b>13</b>   |
| Group 610 - M14 - Music (variant Oboe Instrument)     | 1          | 0          | 0          | 0         | 1          | <b>2</b>    |
| Group 610 - M15 - organ                               | 1          | 0          | 0          | 0         | 0          | <b>1</b>    |
| Group 610 - M16 - Percussion                          | 2          | 0          | 1          | 0         | 1          | <b>4</b>    |
| Group 610 - M17 - Piano                               | 17         | 7          | 9          | 0         | 4          | <b>37</b>   |
| Group 610 - M18 - Saxophone                           | 3          | 0          | 2          | 0         | 1          | <b>6</b>    |
| Group 610 - M20 - trumpet                             | 2          | 0          | 1          | 0         | 0          | <b>3</b>    |
| Group 610 - M21 - trumpet                             | 1          | 0          | 2          | 0         | 2          | <b>5</b>    |
| Group 610 - Music - M22 - Tuba                        | 0          | 0          | 1          | 0         | 0          | <b>1</b>    |
| Group 610 - M23 - Violet - Viola Bow                  | 5          | 1          | 1          | 0         | 2          | <b>9</b>    |
| Group 610 - M24 - Violin                              | 15         | 5          | 7          | 0         | 5          | <b>32</b>   |
| Group 610 - M25 - violoncello                         | 5          | 1          | 1          | 0         | 1          | <b>8</b>    |
| Group 610 - M28 - Musical Training                    | 17         | 3          | 5          | 0         | 5          | <b>30</b>   |
| Group 610 - M29 - Analysis and Composition Techniques | 2          | 0          | 1          | 0         | 1          | <b>4</b>    |
| Group 610 - M32 - Classes group                       | 4          | 1          | 1          | 0         | 1          | <b>7</b>    |
| Group 620 - Physical Education                        | 6          | 2          | 1          | 0         | 1          | <b>10</b>   |
| Group M26 - Canto                                     | 1          | 1          | 5          | 0         | 2          | <b>9</b>    |
| D 01 - Classical Dance Technique + Pontas             | 0          | 0          | 0          | 0         | 2          | <b>2</b>    |
| Dance - D03                                           | 0          | 0          | 0          | 0         | 1          | <b>1</b>    |
| D07                                                   | 0          | 0          | 0          | 0         | 1          | <b>1</b>    |
| Group D06 - Music                                     | 0          | 0          | 1          | 0         | 0          | <b>1</b>    |
| D04 - Coreographic Creation                           | 0          | 0          | 2          | 0         | 0          | <b>2</b>    |
| Group Dance                                           | 1          | 0          | 0          | 0         | 0          | <b>1</b>    |
| <b>Total</b>                                          | <b>370</b> | <b>292</b> | <b>595</b> | <b>24</b> | <b>547</b> | <b>1828</b> |

As shown in Table 3, although there are disciplinary groups common to different editions it did not happen with most of them. This means that Universidade Aberta, at the beginning of each edition had to seek to respond to the needs that he appeared so as not to disappoint the expectations of those who relied on her to complement their training and thus be able to continue in the job market. In this sense, there was a constant effort to adapt the pedagogical supply of Universidade Aberta to the needs of demand, to the labor market, to the civil society while maintaining their levels of excellence in the answer it gives to these challenges.

### **A brief summary**

As we said at the beginning of our work, current society requires a constant demand for answers towards an adaptation to market requirements. It was in this context that the concept of lifelong learning, this learning society, gained new dimensions due to social and economic changes in the global world. Learning lifelong originally connoted with the education of adults with no or low qualifications gained a new dimension to see extended their application to different contexts and audiences that need to see increased their competencies, regardless of

their initial training, or other formations that have been acquiring. This concept is now associated with an increase of competencies in order to enable the individuals to respond more effectively to the needs of the society in which they operate. It was because all of this that the concept of lifelong learning has gradually become a key concept in international policies on education. In it is contained the message that learning should be a constant throughout life. This formation can occur in different contexts beyond school because we are facing an *educational society*. However, we still believe that universities can and should be involved in these changes and found the answers to them, partnering with other actors in the social scene.

The International Commission on Education for the Twenty-First Century (1996) recommends in its report that the University should play a crucial role in the educational system

*The university should occupy the center of the educational system even though, similar to what occurs in many countries, there are other higher education institutions.*

- *It should play these four essential functions:*

- 1. preparation for research and teaching;*
- 2. offering a formation in different areas, very specialized and adapted to the needs of economic and social life;*
- 3. open to all to respond to multiple aspects of what is known as continuing education in the broadest sense;*
- 4. international cooperation. (p. 34).*

In this context teachers are important elements in the process but need to be updated in their scientific knowledge and their teaching practices. In this same report has already been recommended the need for teachers to constantly update their knowledge. Thus, for their authors the *teachers are affected also by this imperative update of knowledge and competencies. Their life must be organized in such a way that they are capable, even, are obliged to improve their art and benefit from experiences in various spheres of economic, social and cultural (p.35).*

It was in this scenario that Universidade Aberta, in partnership with the Teachers Union and the Ministry of Education has developed and he lectured a Course of Professionalization of Teachers, over 5 regular editions and one specific to the Azores. Universidade Aberta, once again, by their very nature, and recognized for its quality did lives up to their motto *Anywhere in the World* ensuring, in this way, many teachers the opportunity to adapt to legal requirements in order to continue to count on the possibility of exercise their profession.

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