

# Teacher Training: the context of the Knowledge Society and Lifelong Learning, the European dimension and the main trends in France

## *Usposabljanje učiteljev: kontekst družbe znanja in vseživljenjskega učenja, evropska razsežnost in glavni trendi v Franciji*

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### **Abstract**

Training teachers is an ever more crucial issue in educational policies in Europe. We will address the new context in which teachers must act and be trained: the context of ‘knowledge societies’, with its networked structure and with the development of collective intelligence. We will then locate teacher education in Europe and its evolution in the context of the Bologna process and the Lisbon strategy, and present the ‘European common principles for teacher competences and qualifications’. Finally, we will discuss the case of teacher education in France.

### **Keywords**

teachers, teaching profession, teacher education, knowledge society, networks, collective intelligence, competencies, qualifications, lifelong learning

### **Povzetek**

*Usposabljanje učiteljev je vse bolj ključna zadeva v edukacijskih politikah v Evropi. Obravnavali bomo novi kontekst, v katerem morajo učitelji delovati in biti zanj usposobljeni: kontekst “družb znanja” z njihovim mrežnim strukturiranjem ter z razvojem kolektivne inteligence. Zatem bomo postavili izobraževanje učiteljev v Evropi in njegovo evolucijo v kontekst bolonjskega procesa ter lisbonske strategije in predstavili “evropska skupna načela za kompetence in kvalifikacije učiteljev”. Na koncu bomo kot primer obravnavali izobraževanje učiteljev v Franciji.*

### **Ključne besede**

*učitelji, učiteljski poklic, izobraževanje učiteljev, družba znanja, mreže, kolektivna inteligenca, kompetence, kvalifikacije, vseživljenjsko učenje*

The profound changes in the society have a deep impact on the role of teachers and on the teaching profession. Information and Communication Technologies

(ICT) do not only provide new tools and resources for teaching and learning; they change the knowledge itself, the ways for accessing knowledge, and they bring new concepts to our Societies. They give information and knowledge a new status. Training teachers in a “knowledge society” is a new challenge for all countries. In this paper, we will address some of the major concepts of a Knowledge Society, and we will present some trends in Teacher Education, at the European level and in France.

## 1 Training Teachers in a Knowledge Society

Some years ago, we were speaking about computers and informatics, their role in education, how they can help teaching and learning. But the integration of new technologies in education is no longer only a question of computers and informatics. We now speak about Information and Communication Technologies, which deal with processing and transporting digitalized information. The changes are not only in terms of tools and resources. Information has taken a new and huge place in our societies, and education is concerned by ICT at least on three levels: preparing pupils and students for a society in which information and knowledge have a new status and in which digital technologies have a core place, preparing pupils and students to use ICT and computer tools, and of course using ICT and computers as a tool for better learning and teaching. Teachers have to be prepared for these three levels.

### 1.1 Information and knowledge

Information is not knowledge. Information can be facts, comments, opinions, expressed through words, images, sounds; information can be stored, circulated, exchanged, bought, sold, etc. Knowledge is linked with a person; it is the output of a process of reconstruction of information by a person, according to his/her history and context. Education has to do with knowledge, not only with information. Information can be “transmitted”, but knowledge must be constructed, acquired.

The “Information Society” is a society based on technological development, in which information is considered as a good. The society of information may be the society of the digital divide, in which access to information is not equitable. A “Knowledge society” should be a human society, taking into account wider social, ethical and political dimensions, in which knowledge should contribute to bring equity, justice, solidarity, democracy, peace... Equity in access to knowledge is a core challenge for Knowledge Societies.

There are two major characteristics of a Knowledge Society: It is a “networked” society, and it is a society in which a “collective intelligence” can be developed.

## 1.2 A networked Society

We are used to a society in which most of the organisation is done in terms of hierarchy, in a pyramidal way: our institutions are organized that way, accessing a person or accessing an information (in a book for instance) is done through a hierarchical system (like the directory of a library). The Information Society, particularly with the development of the Internet, has brought a more complex organization, with “networks”. In a network, nodes (objects, persons, information, web pages, etc.) are linked by edges (like for instance “one click”). A network is a very complex structure (cf. the “world wide web”). It is highly evolutive and interactive (one can permanently add or cancel links between nodes). In a network, there are several possible paths from one node to another, and if I am not satisfied with some way to access some person or information, I can use another path; this is not possible in a “hierarchical” organization. A network can include sub-networks. A networked structure brings changes in communication: we are moving from “one to one” communication and from “one to all” communication to “all to all” communication; we are moving from hierarchical communication to networked communication. A network is not without hierarchies: there may be new kinds of hierarchies in sub-networks. A major challenge is to be able to circulate in a network. Education has to take into account the networked form of accessing knowledge. In a networked society, there are new knowledge and new ways of accessing knowledge. This changes teaching, learning, pedagogy, etc. It changes the space and the time for teaching and learning. Being a teacher in a networked society requires new competences: it is a major role for the teacher to help pupils circulate in the knowledge networks, to find appropriate paths in complex networks, to validate the knowledge found, to find appropriate knowledge. Therefore teacher education must take into account the networked characteristics of the knowledge society.

## 1.3 Collective intelligence

The knowledge society needs and reinforces the development of a kind of “collective intelligence”. Education is used to develop pupils’ individual intelligence and capacities. Collective intelligence is not the addition of individual intelligences. It is a form of intelligence which develops inside a group, in a collective way, through communication between each member of the group and the “environment”. Collective intelligence does not function in a hierarchical way, nor as a simple “sharing” of tasks. It is essentially the intelligence of a group, for collective competences and capacities, for collective learning, for collaboration, for collective memory. Collaborative work is a form of activity in the context of a collective intelligence. New resources such as

“wikipedia” can be considered as first attempts of developing a collective intelligence. Education has to develop not only the individual intelligence and capacities of pupils, but also the collective intelligence and capacities; this is a new task for teachers, which requires new competences, and which must be taken into account in teacher education. The classroom is the first place where collective intelligence can be built and used. Teachers must work in the context of a collective intelligence and competence: they have to develop collective intelligence of pupils, to develop the capacity for collaborative work, to use collaborative work.

Of course, there are many other aspects of a knowledge society, which have impact on education, on teachers’ competences, and which must be addressed in teacher education. Networks, and collective intelligence, seem to be two major concepts for teacher education.

## 2 Training Teachers in Europe

### 2.1 Reforms and obstacles

Since 1970 the reforms in Teacher Education in Europe mostly aim at increasing the role of Universities and articulating the training with school practice, and increasing the duration of the training. For secondary teachers the initial training lasts 3 to 6 years; for primary teachers, 3 to 5 years. Reforms also aim at giving more importance to the professional training. There are still two main models: the “successive” model, in which professional competences are acquired after studying one’s subject(s), and the “parallel” model, in which subject and professional competences are addressed in parallel all along the cursus. This depends on countries, but it is frequent that secondary teachers are trained according to the “successive” model, when primary teachers are trained according to the “parallel” model. In many countries, there is a “*numerus clausus*”, limiting the number of student teachers.

The huge differences in Europe in the processes for training and recruiting teachers create problems. The systems are not really compatible, mobility is not easy, confidence in other countries in terms of teacher competences is limited. Of course, almost all European countries agree on core principles: Teacher training should articulate subject and professional training, the training should articulate theory and practice, Teachers Life-Long Learning should articulate pre- and in-service training, and training should be based on research. But important questions are still raised, such as the place of practical training in schools and its articulation with “theoretical” training, the role of schools in Teacher Education, the question of teacher-trainers and their link with school

teaching. And the tension between “increasing academic knowledge” and “improving professional competence” is still very high.

## 2.2 The Bologna process and the Lisbon strategy

All European countries have progressively moved teacher education into higher education, and universities play a major role in teacher education, in connection with schools. The evolution of higher education in Europe is widely driven by the Bologna process: In 1999, the Ministers in charge of higher education from 29 countries signed the Bologna Declaration, in order to set up a European Area of higher education. The Bologna declaration plans a two cycle organization for higher education, with two levels of certification (Bachelor, and Master). The Berlin Conference, in 2003, extended the Area to 45 countries, and introduced a third cycle for certification, at the PhD level. In order to introduce a European coherence, a level of compatibility and the possibility for mobility, the European Countries have established a system of European assessment for higher education: ECTS, European Credit Transfer System. In this system, globally speaking, each semester provides 30 ECTS, a Bachelor degree requires 180 ECTS and a Master degree requires 300 ECTS. Progressively, all European universities are moving to such a system. But teacher education is not always included in the Bologna process, and many countries are hesitating in applying the ECTS system to teacher education. This question remains a crucial question, particularly if we want to establish confidence between countries in the way teachers are trained, and European mobility for student teachers and teachers. It would be interesting to carry on a comparative study of the implementation of the Bologna process in teacher education in European countries. The question is raised in all countries, but very few have completed a reform of this type (Finland has now established a teacher education system totally compatible with the Bologna process, with a Bachelor degree in 3 years then a Master degree in 2 years, with teacher education programmes giving access to ECTS in all universities, and with the requirement of a Master degree for all teachers).

In complement to the Bologna process, European countries have set up the Lisbon Strategy ([http://ec.europa.eu/education/policies/2010/et\\_2010\\_en.html](http://ec.europa.eu/education/policies/2010/et_2010_en.html)): “In 2002, Heads of States and Government went on to say that by 2010, Europe should be the world leader in terms of the quality of its education and training systems. To ensure their contribution to the Lisbon strategy, Ministers of Education adopted in 2001 a report on the future objectives of education and training systems agreeing for the first time on shared objectives to be achieved by 2010. A year later, the Education Council and the Commission endorsed a 10-year work programme. Ministers of education agreed on three major goals to be achieved by 2010 for the benefit of the citizens and the EU as a whole: to improve the quality and effectiveness of EU education and training systems; to

ensure that they are accessible to all; to open up education and training to the wider world.

To achieve these ambitious but realistic goals, they agreed on thirteen specific objectives covering the various types and levels of education and training (formal, non-formal and informal) aimed at making a reality of lifelong learning. Systems have to improve on all fronts: teacher training; basic skills; integration of Information and Communication Technologies; efficiency of investments; language learning; lifelong guidance; flexibility of the systems to make learning accessible to all, mobility, citizenship education, etc.”

Strategic objective 1 consists in “Improving the quality and effectiveness of education and training systems in the European Union”. It includes sub-objective 1.1: *“Improving education and training for teachers and trainers. This sub-objective states that “access to knowledge is of the highest importance in a knowledge society. Teachers and trainers are therefore key actors in any strategies targeted at stimulating the development of society and the economy. Attracting and retaining well qualified and motivated people in the teaching profession, which is faced with massive recruitment needs due to the ageing of the teaching population, is a short and medium term priority in most European countries. If Europe is to succeed in this objective, which is becoming more difficult across the continent as a whole, it must improve the ways in which teachers and trainers are supported as their role changes, and as public perceptions of them change; it must be supported by a general consensus, with those in the teaching and training professions, as to the skills which they all should have.”*

Four key issues are addressed in order to complete such objectives:

1. identifying the skills that teachers and trainers should have, given their changing roles in knowledge society;
2. providing the conditions which adequately support teachers and trainers as they respond to the challenges of the knowledge society, including through initial and in-service training in the perspective of lifelong learning;
3. securing a sufficient level of entry to the teaching profession, across all subjects and levels, as well as providing for the long-term needs of the profession by making teaching and training even more attractive;
4. attracting recruits to teaching and training who have professional experience in other fields.

### **2.3 The Common European Principles for Teacher Competences and Qualifications**

In the framework of these objectives, the European Commission decided to design “Common European Principles for Teacher Competences and Qualifications” [see this book, pp. xx-xx]

([http://ec.europa.eu/education/policies/2010/doc/principles\\_en.pdf](http://ec.europa.eu/education/policies/2010/doc/principles_en.pdf)).

This text was written by a group of experts (Sonia Blanford, Bernard Cornu, Hannele Niemi, Pavel Zgaga), and then worked out and validated by a “testing conference” held in Brussels, June 2005. The aim of such principles is to introduce a better coherence in teacher education throughout Europe, in order to increase confidence between countries and to encourage mobility.

The “common principles” remind that teachers play a crucial role in supporting the learning experience of young people and adult learners. They are key players in how education systems evolve and in the implementation of the reforms which can make the European Union the highest performing knowledge-driven economy in the world by 2010. Teachers should be equipped to respond to the evolving challenges of the knowledge society, participate actively in it and prepare learners to be autonomous lifelong learners. Teachers also have a key role in preparing learners for their role as EU citizens.

Four common principles are proposed:

1. A well-qualified profession: All teachers are graduates from higher education institutions; “Every teacher should have the opportunity to continue their studies to the highest level in order to develop their teaching competences and to increase their opportunities for progression within the profession. Teacher education is multidisciplinary. This ensures that teachers have extensive subject knowledge, a good knowledge of pedagogy, the skills and competences required to guide and support learners, and an understanding of the social and cultural dimension of education”.
2. A profession placed within the context of lifelong learning: teachers’ should be supported in order to continue their professional development throughout their careers. They need to be employed in institutions which value lifelong learning in order to evolve and adapt throughout their whole career. Teachers should be encouraged to review evidence of effective practice and engage with current innovation and research in order to keep pace with the evolving knowledge society. They should be encouraged to participate actively in professional development, including periods of time outside the education sector, and this should be recognised and rewarded within their own systems.
3. A mobile profession: mobility should be a central component of initial and continuing teacher education programmes. There should also be the opportunity for mobility between different levels of education and towards different professions within the education sector.
4. A profession based on partnerships: institutions providing teacher education should organise their work collaboratively in partnership with schools, industrial and vocational settings, work-based training providers and other stakeholders.

The teachers key competences are then proposed, under three headings:

1. Work with others: they work in a profession which should be based on the values of social inclusion and nurturing the potential of every learner. They need to be able to work with learners as individuals and support them to develop into fully participating and active members of society. They should also prepare and develop collaborative activities which increase the collective intelligence of learners and co-operate and collaborate with colleagues to enhance their own learning and teaching.
2. Work with knowledge, technology and information: they need to be able to work with a variety of types of knowledge. Their education and professional development should equip them to access, analyse, validate, reflect on and transmit knowledge, making effective use of technology where this is appropriate. Their pedagogic skills should allow them to build and manage learning environments and retain the intellectual freedom to make choices over the delivery of education. Their confidence in the use of ICT should allow them to integrate it effectively into learning and teaching. They should be able to guide and support learners in the networks in which information can be found and built. They should have a good understanding of subject knowledge and view learning as a lifelong journey. Their practical and theoretical skills should also allow them to learn from their own experiences and match a wide range of teaching and learning strategies to the needs of learners.
3. Work with and in society: they contribute to preparing learners to be globally responsible in their role as EU citizens. Teachers should be able to promote mobility and co-operation in Europe, and encourage intercultural respect and understanding. They should have an understanding of the balance between respecting and being aware of the diversity of learners' cultures and identifying common values. They also need to understand the factors that create social cohesion and exclusion in society and be aware of the ethical dimensions of the knowledge society. They should be able to work effectively with the local community, and with partners and stakeholders in education – parents, teacher education institutions, and representative groups. Their experience and expertise should also enable them to contribute to systems of quality assurance.

Then the text suggests a set of recommendations.

#### **2.4 New competences and lifelong learning**

The question of teachers' competences has always been a difficult question. All proposals are based on the idea that teachers must have both competences for instilling knowledge and competences for forming citizens. But the balance

between these two competences is discussed, and the way to meet such competences is still a question in most countries. The main role of the teacher is to be the mediator between the learner and the knowledge, and this role is considered as essential and irreplaceable, especially with the growing role of information and communication technologies. The changes in society, the integration of ICT, need more and more competences for teachers: competences in the subjects to be taught, technology competences, competences for new pedagogical possibilities, for new management of time and space, for new knowledge and new networked form of knowledge, for the new expectations of Society, ethical competence (digital divide and divides in education, « knowledge divide », ethical questions brought by globalization, by the increasing commercialisation of education, property rights, cyber-crime, privacy, etc.).

There is a tendency to add more and more competences to the list of competences teachers must acquire during their education and training. This “always more” tendency leads to an impossibility. We must concentrate on core and generic competences, as the European Common Principles offer, and we must consider that teachers’ competences can no longer be addressed in an individual and definite way. The competences of teachers must now be considered as collective competences (being a teacher is a team profession, teachers must be prepared for cooperative working and for collective intelligence), and as evolutive competences to be developed all along a Lifelong Training process; teachers must have the permanent competence to acquire new competences).

Lifelong Learning is an essential component of the teaching profession. The Knowledge Society is a Lifelong Learning Society in which knowledge and competences evolve permanently. The pupil of today will have to learn all his/her life long, in all aspects of learning: Learning to know, learning to do, learning to live with others, learning to be. The teacher has to act in the context of Lifelong Learning, for preparing his/her pupils to a lifelong learning attitude and process, and for permanently developing his/her own knowledge and competences. The principle of Lifelong Learning for teachers does not reduce to lifelong in-service training. It incorporates and articulates pre-service and in-service training into a « continuum ». Lifelong Learning includes many forms and activities; it is not just staying like a pupil all life long! It means acquiring new forms of learning, participating in collaborative learning, being part in the « collective intelligence », being part of the « networked » society. Each dimension of the Teaching Profession is concerned by lifelong learning. The Teaching Profession is an intellectual profession, a profession of intellectual freedom, a profession of “lifelong intellectual activity”.

### 3 Teacher Training in France: Trends and stakes

Before 1989, French primary teachers were trained in the famous “Ecoles normales”, which had been created two centuries before. Such “Ecoles normales” were independent of universities, and totally managed by the Primary Education system. Secondary teachers took their degree at University in their subject, and then were lightly trained in “CPR” (Centre pédagogique regional), where inspectors gave them some pedagogical courses, in connection with their first experience of school practice.

In 1990, a huge reform created the IUFMs (*Instituts Universitaires de Formation des Maîtres*), in charge of teacher initial professional training (for primary and secondary teachers) and of contributing to in-service teacher training and to educational research. The main idea was to train all teachers in the same University Institution. Since 1982, in-service teacher training had increased strongly, under the responsibility of “MAFPENS”.

IUFMs are University institutes. They aim at five main “coherences”: Coherence between subjects and professional competences, articulating theory and practice, giving primary and secondary teachers a “common culture”, articulating pre- and in- service training, and coherence between training and research.

The link between teacher recruitment and training is a core French specificity: Teachers are recruited by the State through a competitive exam, and then they are provided with a post in a school. In the most common case, it takes 5 years to become a teacher: 3 years at University (Bachelor degree, called “licence”), then admission at IUFM, where a first year is devoted to preparing the State recruiting competition, and then, in case of success at the recruiting competition, a second year at IUFM for professional training and school practice. During this fifth year, since the student has been recruited by the State as a teacher, he/she gets a salary as a civil servant.

Such a system is obviously an obstacle for the European coherence: The recruiting competition is not a diploma, therefore the highest diploma teachers usually have is the “licence” (3 years at university), even if they have had a 5 years training in a higher education institution. The question of providing teachers at the end of their studies with a Master degree is presently discussed. The form of the training, with the recruiting competition inside, does not make it easy to organise the studies in an “ECTS” system. And the system does not encourage an international European recruitment, even if European students with a Bachelor degree are allowed to apply for the recruiting competition.

Secondary teachers are mainly trained in their subject; pedagogy and didactics, and professional training remains limited. Primary teachers have to teach all subjects, but they get their “licence” in one subject. It is then difficult to prepare

them for 11 or 12 subjects. Traditionally, they have a stronger training in pedagogy and in school practice.

Teacher education is always a topic for discussions and tensions in France. There are tensions between the subject knowledge and the pedagogical and professional components of the training. There are tensions between the “University” characteristics of the training and the school practice. There are tensions between a training aiming at giving immediate and short term competences for teaching (“recipes for teaching”, as students often ask for), and training for long term competences.

The recent French law for education (2005) introduces two major changes in teacher education. The law says that from now on, IUFMs will be integrated into universities and considered as Institutes inside universities. And the law says that IUFMs are in charge of teacher education, that they host the students preparing the teachers recruiting competitions and the students who have succeeded in these competitions, and that the training, alternating periods of theoretical training and periods of practical training, must meet a “schedule of conditions”, designed by the Ministry. This “schedule of conditions” is now being elaborated. Likely, it will be organised according to competences to acquire, rather than according to a curriculum for teacher training. It describes in a very detailed way the form and the content of the school practice periods.

But the implementation of the Bologna process in teacher education, and the integration of the European common principles for teacher competences and qualifications, is still a huge work in France.

## Conclusion

As a conclusion I would like to quote one of the conclusions of the “Stellenbosch Declaration”, proposed by the 800 participants in the IFIP (International Federation for Information Processing) World Conference on Computers in Education 2005, in Stellenbosch, South-Africa: “Being a teacher in the Knowledge Society requires new specific competencies: a teacher has to deal with new knowledge, new ways for accessing knowledge; with a networked world and with new types of co-operation and collaboration; with a society in which knowledge plays a crucial role; with lifelong learning. Teachers are the key agents in the education system. It is our common responsibility to help all countries to train and recruit teachers, and to involve all teachers in international networks. ICT changes teaching and learning, but technology is not the main issue. *“Technology matters, but good teachers and good teaching, matter more”*.”