Teacher training: 
a contribution to discussion
Some country experiences

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There is increasing recognition in our region of the need and importance of persevering in the search for equity and improvement in the quality of education. In response to these challenges, much effort has been made to create and promote programs, projects, and activities that foster innovation and change in the various areas of education such as teacher training, school management, curricular content, and materials.

Improving the quality of education means emphasizing pedagogical processes in the classroom. This demands that profound changes take place in all dimensions, principally in the training of teachers and in how teachers apply the results of their professional development in school.

The ideas of teaching and of learning have changed greatly, with important consequences on our understanding of what and how students learn and, therefore, how they should be taught.

The tasks of today's teachers are much more diversified than in the past. Therefore, in order to favor diversity and to encourage effective learning, teachers need to be aware of the different personal histories, abilities, and expectations of their students. Therefore, the role of teachers requires a new conception of the teaching profession itself.

Therefore, it seems opportune to recall that schools is the key link in the education system. Giving schools coherence and unity involves teamwork and cooperation between teachers. Similarly, we know that schools are fundamentally a forum for on-
going intellectual, social, professional, and human training for both students and their teachers.

Recent research shows that it is essential to change the school climate in order to improve learning achievement. Thus, teachers and students must develop a sense of belonging to their schools, and of the school belonging to the community. Recognizing oneself as an integral part of a team and having a favorable teaching and learning environment are crucial for obtaining a good education.

Today, it is evident that learning is a continual process not limited to any particular environment. Students learn both in and outside the classroom. This has changed our traditional idea of teaching. Our ideas about where one learns, when one learns, and who are the actors involved in this process have changed greatly.

In view of the above, UNESCO's Regional Bureau for Education in Latin America and the Caribbean offers this contribution to discussion regarding teacher training policies in the countries of the region in order to face the challenges faced by education.

We present here a number of papers related to initial and in-service teacher training in different countries that, in spite of having very different social, political, economic, and cultural contexts share the same concern in seeking teacher training that matches the realities they face.

This is one of the first publications on this subject and, given its importance, it will not be the last. It is our intention that this be followed by others in order to present experiences from other countries, and especially from our region.

This volume seeks to foster reflection, new ideas, and exchange in order to trace out new paths that allow teachers to be true protagonists in the changes taking place in education.

We wish to thank the Government of Spain which, through its Ministry of Education, provided financial support that made the production of this volume possible.

Ana Luiza Machado
Director, Regional Bureau for Education
UNESCO Santiago
Errol Miller presents an article in which he identifies and discusses teacher training policies and practices that have been adopted in the English-speaking Caribbean. He notes that in the present social and cultural context of the region, it is not enough to concentrate solely on the professional development of teachers in terms of improving their pedagogy and knowledge of the content of the subjects they teach. In this sense, teachers must look within themselves in regard to their societies and the changes taking place both at the local and global levels. At times, the training of teachers is isolated from the increasing complexity of different social and cultural problems that schools face. Therefore, new policies related to teacher training need to fill this need.

Beatriz Avalos treats the state of continue teacher training in Chile. She describes how democratic governments in the 1990s and beginning of this century have approached the subject, arguing that policies of continued training as such have not been developed, and noting that other policies directly or indirectly effect opportunities for initial and in-service training. She then provides an analysis of achievements and limitations in this regard, and concludes by urging the necessity of creating a clearer definition of continual teacher training, saying that is the responsibility of the State, with the support that can be provided by non-governmental and private organizations.
Eleonora Villegas Reimers analyzes teacher training in the United States, offering a general description of changes and their origins. She argues that changes in such training are related to changes in the focus of American society. Within this context, originally, teachers were seen as workers, and then as professionals. Moreover, their preparation was first called “training”, a term subsequently replaced by “professional education and development”. It should be noted that the repercussions of this change in paradigm were important, since the structures of schools and training institutions were changed, while also modifying interactions between them. The author discusses the kinds of knowledge, skills, and attitudes required of teachers. She concludes by offering general recommendations for educators and for policy-makers.

Teresa Mauri Majós, in the context of education of the XXI century, treats initial and continuing education in Spain. In this field, she analyzes guidelines for future teacher training in the new knowledge and information society, and the Spanish teacher training model. Considering current changes in society, employment, and education, teacher professional training should focus on reconstructing the role of school-based education in the new society. Moreover, training must prepare teachers to develop an obligatory education proposal with objectives common for all students; to critically develop knowledge, to master new technologies and foster the use of strategic forms of organization, and to encourage teachers to be able to exercise self-criticism and to improve their practices.

Georges Soussan presents teacher training in France, defining an education system that is open, permeable to external influences, and in continuous evolution in order to respond to the new social, cultural, economic, and political contexts within which it is immersed. The author describes training modalities for primary and for secondary teachers, analyzing the same time their critical aspects. He argues that initial training should be followed by continual training, and that both should be thought of as phases of the same training system that integrates research. A system with these characteristics involves the joint work of researchers and teacher trainers within centers of training and research, which should interact continually with schools, thus generating regular exchange between schools and training centers.

Bob Moon analyzes teacher training in England from a national and international perspective. To begin, he presents an international scenario of teacher training, suggesting that the same problems and challenges are present in all parts of the world. He then details the English model of initial and in-service teacher training—permanent professional development. He notes that this system has passed through significant reforms during the last decade. One aspect of the English reform has been the incorporation of open and distance education which employ new information and communication technologies. Finally, the author briefly describes the relevance of these projects within the global debate on the future of teacher training.
Drori Ganiel presents teacher training in Israel, where education has a key position among the national priorities. Upon education depend many of the challenges faced by Israeli society. Among these are the immigration of people from diverse cultures. The author notes that one-fourth of the current population was absorbed within the last decade. There then follows an analysis of the profile of educators, the kinds of students preparing to become teachers, the conditions for their admission, the structure and duration of studies, the curriculum, practice teaching, and work carried out. Similarly, we learn of the study necessary to continue to the second level of teacher qualification. A brief description is given of current approaches of the teacher training system. To conclude, the author treats the training of school principals, of school inspectors, and of directors of municipal departments of education.
Teacher education and training policies in the commonwealth caribbean

Errol Miller*

The Caribbean as a region has always been variously defined. The most inclusive definition describes the region in geographical and cultural terms as that area bounded to the north by Bermuda and the Bahamas, to the west by Belize located on the Central American mainland, to the east by that arch of island extending to Barbados and to the south by Guyana, Suriname, Cayenne and Venezuela on the South American mainland and the islands of Aruba, Curacao and Bonaire. This definition of the Caribbean would include Dutch, English, French and Spanish speaking territories. Less inclusive definitions have grouped some Caribbean territories with other groups and left the rest as the Caribbean. For example, Cuba and the Dominican Republic are often classified with Central America or Latin America as a whole. Martinique, St Martin, Guadeloupe and Cayenne are officially a part of France. Puerto Rico and the US Virgin Islands are often not included in Caribbean conclaves based on their relationships with the United States. Then again there are the Dutch and British dependences that sometimes get excluded on the basis that they are not independent countries. The point is that while using geographical criteria, the Caribbean can be defined in inclusi-

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ve terms, political, cultural and language factors often act as exclusive criteria to sub-divide the region.

While this paper would like to take the most inclusive definition of the Caribbean, the time available for its preparation precluded such an approach. This paper is therefore restricted to the English-speaking territories, or Commonwealth Caribbean, as this sub-region is often labelled. This includes both the independent English speaking countries and the British dependencies.

PURPOSE AND CLARIFICATION OF TERMS

The purpose of the paper is to identify and discuss policies and practices that have been adopted in teacher education and training in this sub-region. The primary focus will be on new policies, projects and programmes in teacher education and training since the beginning of the 1990s.

Focusing attention on the topic of teacher education and training represents renewed interest and emphasis on an old subject. Not only is teaching an old profession, but mass schooling in the Commonwealth Caribbean has a history that parallels that of the developed world. Hence, teacher education and training in the sub-region have long and strong traditions.

Given the close relationship that exists between schooling, teachers and the structure of society, it would be unwise to proceed to a full-blown discussion on new policies, projects and programmes in teacher education and training without taking note of a few salient social features of schooling and teaching as they have evolved in the Commonwealth Caribbean.

The first teacher colleges in the Caribbean were established in 1830 just around the time that similar institutions were established in England. While there are many similarities in both history and organisation, there are several differences in practice. One that has relatively unimportant differences in practice, but could be source of much confusion, is the use of the terms pre-service and in-service teacher training.

The term pre-service training is generally used for formal training before teachers enter the profession, while in-service training generally refers to non-formal training on the job. Commonwealth Caribbean practice does not conform to these neat distinctions. Many persons are employed as teachers before they are formally trained as teachers. In these cases the professional training of teachers follow employment. The term initial professional training more accurately describes the Caribbean situation than pre-service teacher training. Likewise, in-service training is one modality through which initial teacher training has been delivered. In the Commonwealth Caribbean, in-service training therefore, could refer to both initial and non-formal on-the-job training. For the purpose of this paper where the terms pre-service and in service are employed, they are used with their Commonwealth Caribbean meaning.
BACKGROUND

From its inception in the 1830s until the 1950s, pre-service teacher education basically followed the same pattern:

- Pre-service training was restricted to primary teachers. There was no indigenous capacity to train secondary school teachers.
- The proportion of teachers trained was very low compared to the teaching force in the schools. For example, in the Commonwealth Caribbean in 1955, the proportion of trained teachers in the primary school systems in the various countries ranged from 7 to 45 per cent.
- The vast majority of teachers in primary schools were recruited from the most able students of the primary school. They were recruited into the pupil teacher system and from that pool, into teachers colleges through an examination process.
- The teachers college programme was for two or three years and paralleled the high schools in terms of subject matter content but added pedagogic training.
- Secondary school teachers were recruited from among the most able student passing the Cambridge examinations that came at the end of high schooling and qualified expatriates, mainly from Britain. Where locals desired teacher training they went abroad to obtain it.

Beginning in the mid-1950s and up to the end of the 1980s, there were vast improvements and changes in the provision for the pre-service training of teachers. The most significant advances can be listed as follows:

- Substantial expansion in enrolment of colleges training primary school teachers with the result that the vast majority of primary school teachers in the region currently is college trained. Indeed, all primary school teachers in the Bahamas and Barbados are trained through pre-service programmes.
- The academic level of the programmes for primary teachers has been raised substantially, as the pre-service programmes require successful completion of secondary education as their starting point. Primary teacher training no longer overlaps with secondary education.
- Indigenous capacity was established to train secondary school teachers and teachers for special schools. As a result, the majority of secondary teachers and teachers in special schools are professionally trained.
- Initiatives were launched to prepare teachers for early childhood education within the formal system of teacher training and separate from the training of primary school teachers.
- A wide variety of models of delivery of pre-service education have been created. These include the two-year intramural plus one-year internship model that was developed in the Western Commonwealth Caribbean from the 1960s to the 1980s; the three-year intramural programme now employed in Jamaica; the two-year intramural model common in the Eastern Commonwealth Caribbean; the three-
year school experience model now being used in Belize and the Advanced Placement Model where trainees with Bachelor and Associate Degrees and GCE Advanced level can be credited with subject content and follow a one-year programme of professional training.

Despite these fundamental quantitative and qualitative changes in teacher preparation in the Commonwealth Caribbean between the 1950s and the end of the 1980s, by the latter half of the 1980s it was clear that new imperatives had overtaken pre-service teacher education. Indeed, these new imperatives shifted the ground from celebration to dissatisfaction and demanded further change. These new imperatives could be briefly summarised as follows:

- While teacher education had advanced over the period, teacher status had declined. One of the roots of this decline was the advance in the general level of education of the population. Teachers who in the past had commanded respect on the basis of their superior education compared to the vast majority of parents and the general community, no longer held such an overwhelming advantage. While the content of the teacher credential had improved, teachers were still being certified through certificates and diplomas in circumstances in which persons with degrees were becoming more numerous in the general population.

- The rapid rise of global economy combined with the spread of democratic process throughout the society demanded workers who could be self-directed and citizens that participated in the apparatus of the states and the enterprises within civil society. These imperatives dictated changes in teachers' roles and relationships among themselves and with students and parents. Traditional authoritarian, teacher-centred sage on the stage teaching methodologies which gave priority to teaching, had to give way to teamwork and collaboration, greater networking with communities and parents, student-centred approaches and guide by the side teaching strategies which gave pride of place to learning.

- Shrinking resources demanded that new modalities of delivery of training had to be employed in addition to conventional full-time face-to-face instruction.

- Advances in information technology that had transformed factory and home production, entertainment, transportation, and communication, had made many approaches and processes used in colleges and schools obsolete. College and school processes had to be re-engineered to incorporate information technology in both management and instruction.

- Increasingly greater economic and cultural linkages between Caribbean countries and across language groups have stimulated greater demand for foreign language acquisition.
POLICY RESPONSES IN PRE-SERVICE TRAINING BEGINNING IN THE 1990S

The innovations and developments in pre-service teacher training beginning in the 1990s, a few of which started in the latter part of the 1980s, have to be seen and interpreted as policy responses to the imperatives cited above. The scope of this paper only permits a brief description of the major policy responses.

UPGRADING THE ACADEMIC AND PROFESSIONAL STANDING OF PRE-SERVICE PROGRAMMES

Several Governments have decided to move to a fully trained graduate teaching force by the end of the first decade of this century. Associated with this policy decision is the upgrading of colleges training teachers to offer pre-service training through degree programmes, as is the case with the Bahamas. Indeed, all new teachers graduating from the teacher preparation programmes in the Bahamas since 1999 hold Bachelor degrees in Education. Bahamas therefore is well on its way to achieving the end of decade target. Consistent with this policy direction, several other tertiary institutions have joined the University of the West Indies (UWI) in offering first degree programmes in teacher education. These include the College of the Bahamas, the University of Belize, Northern Caribbean University, The University of Technology, Church, Mico and Shortwood Teachers Colleges in Jamaica and the Sir Arthur Lewis Community College in St Lucia. These degree programmes are invariably follow-on programmes from certificate and diploma training previously received. The transition to the degree programmes, as the new modality for teacher preparation programmes, is associated with new status and standings for the teacher training institutions and new alliances with regional and foreign universities. The College of the Bahamas has been upgraded from a two-year to a four-year college. Belize Teachers College is now the Faculty of Education within the University of Belize. West Indies College has been upgraded to Northern Caribbean University and the College of Arts Science and Education has been upgraded to the University of Technology. Mico, Shortwood and Sir Arthur Lewis Community College have formed alliances with the University of the West Indies. Church Teachers College has formed an alliance with Temple University of the United States.

CHANGING PEDAGOGICAL PRACTICES IN THE TRAINING OF TEACHERS

If teachers are to use less didactic approaches in the schools then it is imperative that trainees in colleges be taught using pedagogic practices that are student and learner centred. Several reform initiatives within the region have included components
addressing this objective. These include the DFID/UWI project in the training of primary school teachers in colleges in the Eastern Caribbean, the EDUTECH Project in Barbados, the World Bank/GOJ ROSE, USAID/IIEQ, the IDB/GOJ PESP projects involving the training of primary and secondary school teachers in Jamaica and the IDB/GOG Basic Education Project in training primary school teachers in Guyana.

INTRODUCING NEW CONTENT IN TEACHER PREPARATION

The Organisation of Eastern Caribbean States (OECS) long term education strategy document Pillars for Partnership and Progress, which sets education targets for the nine member countries to achieve by 2010, is probably the most comprehensive policy paper in the Commonwealth Caribbean. In addition to the usual areas that educational policies routinely address, Pillars for Partnership and Progress identifies a category labelled 'urgent societal imperatives' facing the Commonwealth Caribbean. The category includes natural disasters, health promoting schools, gender inequities, improving the participation and performance of boys in schools, promoting partnerships between governments, civil society associations and non-governmental organisations and improving parenting. In all of these areas teachers and teacher preparation are seen as vital to the achievement of the targets set and the strategies to achieve them. In addressing the targets and strategies in the area of information and communication technology in addition to mastering the various skills involved, Pillars for Partnership and Progress sees it as essential for teachers to become producers of software and courseware that are derived from knowledge generated from Caribbean experience and that are rooted and embedded in Caribbean culture.

These are to subject areas of themes that are specifically addressed in teacher preparation programmes. The implication of these urgent societal imperatives for teacher education is the need to develop new content that in most instances cut across disciplinary boundaries. Currently, the urgent societal imperatives are addressed in an impulsive and ad hoc manner. On the other hand, Pillars for Partnership and Progress is requiring a planned and systematic approach that is fully integrated into the programmes preparing teachers. The exact way in which this is to be accomplished has not yet been determined.

EXPANDING THE MODALITIES USED IN THE DELIVERY OF TEACHER TRAINING

Several countries have launched policy initiatives that add distance education and school based modalities delivering teacher education and training. For example, in expanding access to prospective teachers from rural areas in 1994, the Belize Teachers College introduced its distance-teaching route to formal teacher training. This modality
of delivery included four elements: self study using distance teaching materials developed by the college and school-based group interaction, monthly supervisory visits of the trainers by college tutors, monthly workshops at regional resource centres and annual summer workshops held at the college [Thompson, 1999]. Another successful example is that of the use of the distance-teaching mode to upgrade teachers from a certificate to a diploma level in Jamaica. The Jamaican application used much the same elements as was used in Belize except for the monthly visits to the schools. A less successful but equally important innovation was that of the use of a school-based approach to training secondary school teachers in Grenada through the LOME III Project in Tertiary Education in the OECS countries. While the project did produce graduates, it was severely hampered by the limited number of master teachers that were available. In addition, the multiple involvements of the few that were available severely limited the quantity and the quality of the guidance given to the trainees in the schools. Another OECS initiative is the Secondary Teachers’ Training Programme mounted by the OECS Tertiary Education Project. The project is designed to train secondary school teachers on the job using a combination of face-to-face instruction in summer and vacation classes, distance teaching modules during school time and clinical supervision of teaching in the classroom. The trainees are teachers in secondary schools in the OECS holding degrees, associated degrees or their equivalent or having passed two GCE Advanced level subjects.

PRE SERVICE TEACHER TRAINING AND THE USE OF INFORMATION TECHNOLOGY

Another major policy initiative starting in the 1990s is that of using information technology to modernise instruction and management in tertiary institutions training teachers. The assumption and assertion has been that teachers in training need to be instructed using modern information and communication technology if they are to use the same in teaching students in schools.

This has not been without controversy. There has been a heated debate concerning feasibility and appropriateness of introducing information technology in school systems in the region especially in circumstances where basic provisions are lacking or inadequate. At the beginning of the 1990s, most governments did not make the introduction of information technology in schools a priority. However, by adopting policies that invited communities and the private sector to become partners in the delivery of education, the way was opened for information technology to be introduced in schools. The position generally taken by communities and the private sector is that the Commonwealth Caribbean will not be competitive in the world of the future if school leavers cannot competently use information technology. By the end of the decade, all governments formulated information technology policies for schools and colleges and included corresponding components in reform projects. Further, international donor
agencies that had taken a stance similar to governments at the beginning of the 1990s, had changed their stance in the same manner as governments.

The first efforts involved the donations of computer labs to colleges by various interest groups and foundations and also through grants from Ministries of Education. Examples are donations of computer labs from the Ashcroft Foundation to the Belize Teachers College, IBM Bahamas to the College of Bahamas, the Jamaica Computer Society Education Foundation to several teachers colleges in Jamaica and government assistance to establish labs at Erdiston College in Barbados. The most comprehensive and spectacular initiative, however, is that of the EDUTECT 2000 policy initiative by the Barbados Government which proposes to spend US$175 million to modernise all schools and colleges in information technology over the ten years. The training of teachers and education officers in the use of information technology in education is one of the four main areas of focus of this programme launched in 1998.

An interesting innovation in this regard is the linking of teachers colleges with a cluster of primary and secondary as is being done in the case of Bethlehem and Mico Colleges in Jamaica. The colleges provide leadership, technical support and training to teachers and members of the school communities in the cluster and in return gain access to the schools with respect to the teaching practicum and action research by staff and students. Another aspect is that of upgrading teacher trainers in the use of educational technology in their teaching in the colleges as is being done through the JCSEF/Multicare Foundation project in Jamaica.

Over the course of the 1990s, almost all colleges have acquired computer labs by means of donation from some elements of the college community. They have engaged in the training of students and staff in computer literacy, particularly with respect to productivity applications and the Internet, particularly e-mail. One college, Bethlehem in Jamaica, requires all its teacher trainees to enter the college computer literate. Such students that are not computer literate are required to take a pre-college course, organised by the college, to acquire the requisite skills. The MULTICARE Project plans to provide all colleges training teachers in Jamaica with computer labs for their staffs to be trained in information technology and to allow them access to the Internet.

More recently, several colleges have established web-sites setting out their programmes and activities thus making it easier for students and the general community to access information. However, over the last three years, attempts are being made to use information technology in relation to the core business of teacher training and the operations of the colleges. Probably the most systematic approach has been that of the Joint Board of Teacher Education of the University of the West Indies in conjunction with the 14 colleges training teachers in the Western Caribbean.

The Joint Board has been using information technology in the operations of its Secretariat since 1982. However, the 1990s brought new challenges. These can be listed briefly as follows:
- The demand to modernise instruction to bring schools and colleges in line with technology now common in homes, offices, factories, commerce and entertainment. In this regard it is imperative that teachers learn through these new technologies.
- The need to improve the quality of teacher education in the light of the higher education standards required by the information age.
- The need to provide continuing professional development to teachers in-service. The rapidity and profound nature of the changes taking place dictate career-long professional development by teachers in order to keep abreast of the transformations in progress.
- Shrinking resources as structural adjustments and the financial woes of the country continue to threaten, and actually impede, the flow of resources to the education sector.
- Globalisation, especially with the rapid growth of the Internet.
- The necessity to become not only a consumer but a producer of knowledge.

In response to the demand to meet these educational objectives as well as to find solutions to these very real problems as they affect teacher education, the Joint Board has embarked upon the following initiatives:

- Developed a management information system, College Manager, which will allow colleges to manage their operations more effectively. The range of operations stretch from student admission, registration, examinations, financial management, plant management to all personnel matters related to staff. College Manager also allows colleges to carry out on-line transactions with the Joint Board and the Ministry of Education. While the technology has been put in place to achieve these objectives, the transformation from manual and paper based systems to the electronic system, with the attendance change in culture, has proved extremely challenging and has slowed implementation.
- Established a web site that will be at the hub of many of the JBTE operations in the future. The site has been designed to:
  - Provide information about the JBTE programmes, courses, regulations, personnel, publications, curriculum, examinations and events
  - Provide training and technical support for School and College Manager
  - Host the JBTE on-line conference capability
  - Host the JBTE distance teaching operations
  - Host the tutorial system planned to assist students
- Introduced on-line asynchronous web conferencing among the staffs of colleges in the 24-subject disciplines that comprise the teacher-training curriculum. Using Virtual U, developed by Simon Fraser University, the intention is to give Boards of Studies additional means of collaboration, knowledge building, sharing best practices, sharing Internet and other resources, and conducting routine Board of Studies business on-line.
Pilot tested the delivery of UWI Masters in Education courses on-line, starting with courses in teacher education.

Pilot tested a wireless system of connecting colleges to each other and to the UWI and primary schools to colleges. This wireless network permits the transfer of voice, video and data between the nodes in the system. At its core, this network allows a group of trainee teachers in a college to observe and interact with a teacher or colleague teaching a class in a school. This pilot test has formed the basis for the information and communication technology component of the USAID sponsored Caribbean Centre of Excellence in Teacher Education and has as its principal focus the improvement of the teaching of reading in the early grades of primary schools. The intention is that over the next five years each of the eighteen tertiary institutions training primary school teachers will be linked to approximately six primary schools in ways that will promote a learning community devoted to achieve excellence in the teaching of reading in Grades One to Three. Information and communication technology will be used to support diagnostic and performance testing, the development and exchange of materials, teacher training and action research.

POLICY INITIATIVES IN IN-SERVICE TEACHER TRAINING

In-service teacher training in the Commonwealth Caribbean in the 199Os, and to the present, has largely served and has been supportive of the educational reform agenda being implemented in the various countries. Accordingly, in-service teacher training policies have been intricately bound up with policies to improve the quality of education and policies to reform the curriculum. Invariably, in-service teacher training has been included as a component of reform projects supported by bilateral and multilateral donor assistance.

Educational reform projects that have been implemented in the sub-region include the Government of Belize/World Bank Primary Education Project in Belize, The EDUTECT Project in Barbados, the Government of Guyana/World Bank Secondary School Reform Project, the CIDA In-Service Teacher Training Project in Guyana, the IDB/Government of Guyana Basic Education Project in Guyana, the Government of Jamaica/World Bank Reform of Secondary Education Project, the IDB Primary Education Improvement and Primary Education Support Projects in Jamaica, the World Bank and IDB Projects in Trinidad and Tobago and the World Bank Projects in Dominica and St Lucia. The Government of Jamaica/World Bank ROSE Project was the earliest. The first phase of the reform was implemented in 1993 and completed in 1998. This project was one of two that received the World Bank's Quality Award in 1999. Within the limited scope of the paper, it is not possible even to give a brief synopsis of each of these projects. The ROSE project will therefore be
used as an example of Government curriculum reform policies implemented through
donor assistance that include an in-service teacher training component in support of
the curriculum reform.

The defining features of the ROSE curriculum and teacher training aspects of
the reform can be summarised briefly as follows:
- A common curriculum in Grades 7 to 9 in all types of secondary schools and all
  students
- Mixed ability grouping and multi-level teaching among these groups
- Students taking responsibility for their own learning
- Co-operative learning among students
- The teacher as a facilitator and guide in promoting student learning
- Team planning and collaboration among teachers
- Integration across subject areas
- The infusion of career guidance in all subjects in the curriculum

The Joint Board of Teacher Education (JBTE) implemented the In-Service
Teacher Training Component of the ROSE Project. The philosophy adopted by the
JBTE in the execution of the In-Service Training was that of continuing professional
development and not of teacher supervision. The latter implies universal compliance
of all teaching in meeting minimum standards set out in regulations or guidelines laid
down by the Ministry of Education. The essence of the former is voluntary commit-
ment to strive to realise the ideals prescribed by the ethics of the teaching profession
and to achieve the goals set for quality education.

The basic elements of the in-service teaching training strategy were as follows:
- The employment of 25 subject specialists, in both content and methodology,
  whose sole full time responsibility was the in-service training of teachers to
  support the implementation of the ROSE Reform in their schools. These subject
  specialists were deployed in five regional teams located in five strategically placed
  teacher colleges across the country.
- The development and delivery of 45-hour methodology courses taught over ten
days by the subject specialists in the summers during the five years of the project.
  These methodology courses were designed to orient and prepare teachers to
  implement the defining features of the ROSE Reform in each of the five subject
  areas included in the Project – Language Arts, Mathematics, Science, Social
  Studies and Resource and Technology.
- Regular school visits over the course of each school year by the subject specialists
to support the teachers in the implementation of the methodology courses in
their classes.
- The mounting of one and two-day workshops among clusters of schools as
dicted by the subject specialists’ observations and teachers’ requests resulting
from the school visits.
- The development and use of self study distance-teaching modules for teachers in
both content and methodology as prescribed by the ROSE curriculum in Grades 7 to 9 in the various subject areas.

- Continuing professional development for the subject specialists through regular workshops and other collaborative exercises.

Some of the lessons learned from the implementation of the In-Service Teacher Training Component of the ROSE Project can be listed as follows:
- Teachers and students alike overwhelmingly support the pedagogical shifts prescribed by the ROSE reform, [Brown, 1998].
- While teacher and student behaviour do undergo some change in the directions intended by the Reform, the extent of the change is much more modest than the level of expressed acceptance and support.
- The changes required in teacher and student behaviour are by no means cosmetic. The fundamental nature of the shifts demand concerted, co-ordinated and sustained effort in order to bring about the changes to the desired behaviours among the vast majority of teachers.
- The desired changes in teaching and learning strategies are most evident where supporting elements of the reform have been implemented. Hence the prescribed shifts are more evident where curriculum materials have been supplied and are used, buildings have been refurbished, more teaching materials have been provided, and the prescribed textbooks have been supplied.
- Teachers tend to revert to the traditional teacher centred approaches in circumstances where the in-service teacher training was the only element of the reform that was implemented in the school and where that support was scaled down or withdrawn.
- The support of principals for the reform, and heads of departments in large schools and their instructional leadership within the school, is critical to the desired transformation.
- Success in effecting the shift in the teachers' roles and relationships as prescribed by the Reform not only varies considerably between schools but also within schools.
- The development of quality self-instructional distance teaching materials is a slow process.

INTEGRATION OF PRE-SERVICE AND IN-SERVICE TRAINING

An important feature of the ROSE Project was the links established in pre-service and in-service training. One link was that the methods courses developed and delivered in the in-service training summer workshops became the prescribed methods courses for teaching Grades 7 to 9 in the five subjects in the pre-service programme. Hence, all graduates from the pre-service training programme since 1995 had been trained in the
teaching of the five subjects in Grade 7-9 using the strategies that defined the ROSE reform. Another link was the subject specialists of the Project were employed to, and operated from, five teachers colleges strategically located across the country. In effect, during the course of the Project, these regional teams were de facto In-Service Departments of the Colleges.

An understanding between the Ministry of Education and Culture and the JBTE was that if this model of integration of pre-service and in-service training proved successful, then steps would be taken to institutionalise the links. On reviewing this element of the Project, the Ministry of Education and Culture was sufficiently satisfied with the achievements to establish in service departments in the five colleges and to retain the teams of specialists in permanent posts. In this new arrangement these colleges will work in close collaboration with the Regional Office of the Ministry in their area to continue to carry out in-service training in support of the reform. Further, colleges will organise to rotate tutors between teaching the pre-service programmes in colleges and in-service training in schools. Such rotation, it is envisaged, should strengthen the pre-service training of teachers through the closer links with schools.

Another example of the integration of pre-service and in-service training through colleges training teachers and collaboration with the Ministry of Education, is the case of Belize. In the World Bank and DFID project, the in-service training of teachers to support the reforms to primary education was carried out by the Belize Teachers College, which established regional centres across the country. College tutors responsible for the delivery of the pre-service programme played a critical part in the delivery of the in-service training related to the reform of the National Curriculum. Likewise, supervisors employed in the regions to deliver in-service training, undertook some of the supervision of student-teachers, normally done by College staff.

The essential elements of the approach to integrating pre-service and in-service training in both Belize and Jamaica can be identified and listed as follows:

- The synchronisation of the reform of the National Curriculum being delivered in the school system with consequential reform of the curriculum in the pre-service teacher training programmes.
- Organising the teacher-training curriculum in the various subjects in units and writing distance-teaching modules that corresponds to the curriculum units.
- Using the distance teaching modules to deliver systematic and sequential instruction to those teachers who are being formally trained in-service.
- Using the distance teaching modules on a cafeteria basis to deliver in-service training in support of the reform process.
- The use of regional teams to provide school based assistance in the implementation of the new teaching strategies.
- Close collaboration between the territorial education officers of the Ministry of Education and the colleges.

The anticipated outcomes of this integration of pre-service and in-service teacher training are as follows:
- The teacher preparation programmes of colleges will keep abreast of educational reforms in the school system. Consequently, teachers emerging from colleges will be adequately prepared for the challenges being addressed in the schools.
- Colleges will become intimately involved in the continuing professional development of teachers. Pre-service teacher training will therefore not be conceived in terms of being a one-shot event but rather as the commencement of life-long continuing professional development.
- Involvement in continuing professional development of teachers in the schools by college tutors will enrich pre-service training by virtue of keeping the tutors abreast of the current realities in the school system.

Probably the most comprehensive approach to the integration of pre-service and in-service teacher education and training is that of Barbados through the Erdiston Teachers College. For the past six to seven years Erdiston has been offering a full range of pre-service and in-service teacher education and training programmes. There are about eleven different teacher training programmes and courses being offered by the college, which can be classified as follows:
- Full-time pre-service training of primary school teachers
- Initial training of secondary school teachers through the in-service Diploma in Education Programme. Entry to this programme is limited to persons who have first completed at least a bachelor’s degree in their subject area of specialisation.
- In-service training of school principals through the in-service Certificate in Education programme.
- Non-formal in-service courses for school principals and guidance counsellors.
- Non-formal in-service teacher training courses designed to promote the continuing professional development of teachers at all levels of the education system.
- In-service teacher training courses in support of the educational reforms being implemented through EDUTECT.

UPGRADING THE TEACHER TRAINERS

In addressing the issue of teacher education and training, especially as it relates to policies to reform the primary and secondary school systems in the Commonwealth Caribbean and also of reforming teacher preparation, a recurring concern has been that of transforming and upgrading the teacher educators. For example, if teachers are to be prepared through programmes at the bachelor’s degree level, then it is imperative that the teacher educator should have higher degrees. Also, if new curricula require new pedagogical teaching strategies and approaches then teacher preparation programmes should include these strategies. However, if teacher educators have not mastered and used these strategies, then it is hardly likely that these strategies will be successfully incorporated in the teacher preparation programmes.
The traditional route for such upgrading has been scholarships, bursaries and fellowships to overseas universities. This is an expensive proposition that many individuals and governments cannot afford. In addition, the overseas offerings sometimes are not appropriate or relevant to Caribbean needs.

Over the last 30 years, Commonwealth Caribbean universities have begun to address this need through higher degree programmes, especially at the Master's level, offered in the region. In this regard, the University of the West Indies has been the leader but not the sole provider. The University of Guyana has developed its own programmes at the higher degrees level.

The first efforts of Commonwealth Caribbean universities in providing higher degree programmes that have addressed the need to produce teacher education have been largely confined to full-time or part-time face-to-face programmes. The limitations of this approach is that colleges training teachers cannot afford to release most of their staff to enter full-time programmes, and part-time programmes are restricted to those who can come to university campuses to attend evening classes.

An interesting innovation approach was that the collaboration between the University of the West Indies and the University of Alberta through the JBT/University of Alberta/CIDA Project for the staff of colleges training teachers in the Western Caribbean.

The elements of this Project were as follows:

- UWI Masters courses taught by University of Alberta staff during the summer. By taking these summer courses, college staff enrolled in the UWI Masters in Education programme could accelerate their completion of the programme.
- Twelve scholarships to the University of Alberta to pursue higher degree courses.
- Several Bursaries to undertake one-semester programmes at the University of Alberta.

Over the five years of the Project, over 250 staff members (about half) from the 14 colleges and Ministries of Education in the Bahamas, Belize, and Jamaica, participated in the courses either for credit or on a non-credit basis. While not originally included in the Project, six tutors went on to enrol in the doctoral programme at the University of Alberta. By 1998 when the Project ended, one had already graduated and since then four others have successfully completed the doctoral programme and returned to their posts. The JBT/University of Alberta/CIDA Project provides a model that is both feasible and applicable for staff development within and outside of teacher education.

More recently, the School of Education, UWI, Mona, has begun to offer Master's programmes through summer and on-line courses. This innovation started in September 2001 with 33 students enrolled in two programmes: Educational Administration and Teacher Education. This modality of delivering master's programmes allows students to do two courses, face to face in the summer and one or two on-line during the semester. A student could therefore complete the Master's programme over two aca-
demic years while still remaining in full-time employment. This is a very important feature both to the students, who could not be released from their employment and the institutions that could not afford to release them.

An important feature of this modality of training teacher educators is that not only the students but also the tutorial staff can be drawn from all countries of the Caribbean. Indeed, both students and the staff teaching the courses have been resident in different countries including Cayman Islands, Barbados, Jamaica, Japan and Turks and Caicos Islands.

The point to note is that the summer and on-line courses are but another modality of delivering the Master’s programme in Teacher Education at the School of Education, Mona. Students follow the same curriculum, do the same assignments and sit the same examinations as students being taught through the face-to-face modality. As such, the summer and on-line modality is subject to the same quality assurance mechanisms and standards as the face-to-face modality. The results to date have shown no difference in standards.

An interesting facet of the summer and on-line modality of delivering the master's programme is that it is self-financing. Moreover, the fees charged are very competitive with respect to overseas universities currently offering programmes in the region. In other words, programmes customised and tailored to meet the developmental needs of teacher education are being offered on a competitive basis in the market place of international competition in the region.

Based on the success of this initiative, the three Schools of Education located on the three campuses of the University of the West Indies, have begun to explore the possibilities and to make plans to jointly and cooperatively offer all UWI Master’s Programmes in Education through the summer and on-line modality. The first steps in this direction are the plans to mount the Master’s programme preparing Caribbean leaders in the Early Childhood Education, starting in the summer of 2003. Development financing for this effort has come from a grant from the Inter-American Development Bank through the Caribbean Child Development Centre.

In the Primary Education Support Project (PESP) being implemented by the Government of Jamaica through a loan from the Inter-American Development Bank there is a component that addresses the reform of the curriculum of colleges training primary school teachers to make the pre-service teacher education programme consistent with the new National Curriculum being implemented in primary schools. This component not only includes the reform of the primary teacher education programme but also the upgrading and in-service training of the college lecturers in the new methodologies prescribed by the curriculum. The training programme for college lecturers include workshops in the new methodologies, visits to primary schools to observe the implementation of the new curriculum, workshops in utilising techniques being developed from brain research and the application to advance learning, and clinical supervision of the college lecturers as they implement the new teacher training curriculum in their college classrooms.
CONCLUDING DISCUSSION

When teacher education and training policies, programmes and projects in the Commonwealth Caribbean are taken as a whole over the last fifteen to twenty years the following trends can be clearly identified:

- All countries have moved to the policy position that admission to teacher education programmes is based on successful completion of secondary schooling. Because the Commonwealth Caribbean has a common standard for successful completion of secondary schooling, admission criteria are written in terms of numbers and types of passes in the Caribbean Examination Council (CXC) exams or their equivalents. The policy shift has been made possible by the significant expansion in secondary schooling that took place in the decades of the 1970s and 1980s.

- Most countries have moved to the position where the vast majority of primary school teachers are college trained in two or three-year programmes and substantial initiatives have been mounted to achieve similar goals with respect to the professional training of secondary school teachers. It is no longer accepted that mastery of subject content is sufficient for secondary school teaching.

- Several countries have been raising the academic and professional standard for teachers to the bachelor's degree level and setting timeframes for achieving this. In this regard the Bahamas leads the sub-region.

- In-service teacher training has invariably become a part of educational reform programmes. Almost all loan and grant programmes from multilateral and bilateral agencies have supported in-service teacher education programmes.

- Governments have largely carried out pre-service teacher education programmes with little direct support from multilateral and bilateral agencies. Where such agencies has supported pre-service teacher training it has been most indirectly through in-service training initiatives. Put another way, pre-service teacher training in the Commonwealth Caribbean has for the most part gone out without many major capital investments over the last twenty years.

- Several countries have implemented measures to expand the modalities through which teacher education is delivered. Modalities implemented include part-time face-to-face programmes, vacation courses, distance education programmes and combinations of these.

- Over the last ten years almost all countries have moved to include the use of information and communication technology in teacher education. The degree of funding such efforts has varied considerably in the sub-region.

- Over the last two decades several initiatives have focused on upgrading teacher trainers in the tertiary institutions preparing teachers. Over the last five years several of these initiatives have begun to include measures to transform the pedagogy being employed in colleges.
While these policy directions have all advanced teacher education and training in the sub-region, invariably they have had at their core the assumption of the teacher as an agent of change and transformation. However, in the current socio-cultural context of the Commonwealth Caribbean concentration on the professional development of teachers, especially as this relates to mastery of subject content and pedagogy, is not sufficient. Teachers need to understand themselves in relation to their societies and the changes taking place locally and globally in order to effectively relate to themselves and their students. The increasing complexity of the social and cultural issues facing teachers in schools is bewildering to many of them who do not perceive themselves to be equipped to address the challenges presented. Teacher education and training policies now address the personal development of teachers especially as this relates to the rapid social and cultural changes occurring in the sub-region and globally.
Policies regarding teachers in Latin America, and many documents and articles on the subject maintain a certain dichotomy in their conceptualization of teacher training. For the initial stage, there is a tendency to refer to teacher preparation or teacher training; for in-service training one speaks of "enhancement". The difficulty of this formulation is that it projects a view of teacher training that is carried out in two phases and using two different kinds of logic: one that precedes the exercise of the profession per se and that prepares teacher candidates in a more or less complete manner for the task, and another that occurs to the extent that "deficiencies" or updating needs are detected in a teacher's practice. (Huberman and Guskey, 1995). This second stage is defined, then, as "enhancement". Although the practice of teaching, like any other profession, requires enhancement of skills, what the innumerable studies that describe teaching practices have shown is that these tasks exist within a continuum of professional growth more than episodes during which one practice is replaced by another as a result of some kind of training activity.¹ The recognized difficulty that

¹ See, for example, the interesting work of Talavera on how Bolivian teachers receive reform measures and reconstruct them within their usual practices (1999).
Teachers have in accepting changes in their practices shows that those who design reforms do not recognize that such changes are learning processes, and such, they are built upon a reality that is rooted in the daily classroom practice of each teacher. Therefore, only if during his or her professional life a teacher has maintained the perspective of a permanent learner and has been stimulated to this end through procedures and incentives that prove that it is worth while to develop oneself, may one expect that reforms will not arrive as packages that must be assimilated, but rather as logical consequences of that which has been discovered in practice. For this reason, this study adopts the by now well-known view of teacher training as a continuum—one that has an initial preparatory phase in the basics of teaching, followed by different stages of growth within the process of permanent professional development. Using this concept, we will seek to examine the teacher training policies developed in Chile, principally during the 1990s, and the challenges that national policies will face in the mid-term.

Initial teacher training in Chile has a long tradition, having been granted a key role by governments since the middle of the XIX century. The first Normal School for teachers in Latin America was founded in Chile in 1842 by the Argentine educator Domingo Faustinio Sarmiento. Similarly, the first center for training secondary school teachers was established in the University of Chile at the end of the century in 1889. The enormous effort involved in the establishment of these and similar institutions that were created during the XIX century explains why, in great measure, this first training was considered to be final. The primary and secondary teachers trained in these institutions were to receive (and every effort was made to see that this was so) an education that would permit them to successfully carry out their professional practice throughout their lives. Only in cases of specific reforms, such as the experimental schools, was it thought necessary to provide special training in order to meet the demands of these experiments. The first important change which touched upon continuing training occurred at the time of the major education reform of 1965 during the administration of President Eduardo Frei Montalva. Recognizing that changes in structure, curriculum, and teaching strategies proposed by the reform would require excellent teacher preparation, the new law required new primary school teachers to have a university degree. A broad-based training program was created in order to prepare teachers to teach according to standards of the education reform. Creation of the Center for Pedagogical Training, Experimentation, and Research (CPEIP) in 1967 fulfilled this objective. Moreover, as its name implies, this institution, which is part of

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2 Important in this regard are studies on stages of teacher development, such as the work of Huberman (1999).

3 In regard to this and other aspects of the history of teacher training in Chile, see the article by Iván Núñez in B. Avalos (2002).
the Ministry of Education, was also conceived as a place to carry out research and experiments and to be a leader in transforming education in the country.

The creation of CPEIP made it possible in Chile to introduce the term "enhancement", not only as a requirement for effective teaching, but as a right of teachers. But, in spite of the intentions during the government of Salvador Allende to decentralize professional enhancement of teachers and to direct it more at schools and the development within them of collaborative professional development, the concept of "enhancement" during the 1970s and 1980s was limited to courses offered to teachers specific themes not necessarily related to their professional development needs. Assessment studies on how teachers received these experiences show that their procedures were not aligned with the modern concept of teacher learning (Mena, Rittershausen and Sepúlveda, 1993). Nevertheless, for teachers, the CPEIP remained a powerful symbol of their continuing responsibility for in-service training.

Teacher training institutions, heirs of the normal schools and of the Pedagogical Institute of the University of Chile, multiplied in the 1970s and 1980s. But at the same time, due to the incongruence of policies directed at them4, as well as due to the deterioration of working conditions and salaries of teachers, suffered a crisis of quality in the training processes they offered. At the same time, there was a reduced demand of young people willing to prepare themselves as teachers.

Thus, at the end of the 1980s, together with other serious problems facing the national education system, teacher training had deteriorated badly in quality, both for initial and in-service training. The country was still very far from the concept of continuing training of teachers and from policies to develop the concept.

In the rest of this study, I will first describe how the subject of teacher training was treated by the democratic governments during the 1990s and beginning of the new century, showing that continuing teacher training programs as such were not put in place, but that rather there were policies that indirectly or directly affected opportunities for initial and in-service training.

In the second part of this study, I will offer analytic commentary regarding the achievements and limitations of the focus described, and conclude by arguing for the necessity of make more determined efforts toward the definition of an continuing, systemic that considers the responsibilities for the government as well as the contributions that can be offered by NGOs and the private sector in this task.

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4 During the military government (1973-1989) these institutions functioned in reaction to zigzag policies that heavily impacted the work and training of teachers. One of these was the placing of teacher training outside of universities, with a later change that in 1987 restored the concept of teacher training as a university subject. For more details, see Iván Núñez in B. Avalos (2002).
RECENT HISTORY: TEACHER TRAINING IN THE 1990S

THE 1990S PERIOD

The broad themes that were the concern of the new administration of Patricio Aylwin and his Minister of Education Ricardo Lagos were in agreement with the concerns that were behind the meeting of Education For All in Jomtien, Thailand (1990): to offer educational opportunities to everyone, especially to the poor, and to assure that these opportunities would be translated into effective learning in line with the basic needs outlined at Jomtien. All of this required as an indispensable requisite improvement in the quality of educational processes. It was understood, in a form that was later recognized internationally, that only focusing on quality education for all would end up accentuating inequalities if it were not recognized that the most vulnerable sectors of the population need special attention and support. Thus was created the Nine-hundred Schools Program (P-900), aimed at improving educational processes and learning opportunities for children in the schools in the country classified as most-vulnerable. These schools received special resources and special materials designed to facilitate the learning of their students. Programs were created to help make it possible for children to attend and to remain in school. Recognizing the key role of teachers who worked in these schools, and recognizing as well that it was important for them to be convinced and to support the program, teacher workshops were created as well. These workshops brought together periodically teachers from each school in order to become familiar with (through supervisors of the education system) new materials, and to discuss them, practice their use, and to support one another in the improvement of their own teaching practices. In order to encourage their participation, these workshops were known as “teacher enhancement courses” by the CPEIP, and which were linked to salary increases for teacher.

The concern to improve the quality of the poorest schools and learning of those with the least educational opportunities, the program was extended to rural areas as well. Rural Micro-Centers organized periodic meetings of teachers from one and two-teacher schools in isolated areas in order to carry out professional development activities through exposure to new materials and the preparation of and experimentation with material developed by participants and of innovative activities in working with children. Moreover, in the first part of the 1990s, the ENLACES program provided an example of the focus of Education For All to grant priority to the use of computers in primary schools and shortly thereafter in secondary schools as well. The program was the

[1] Originally, the program worked with 900 school identified as the most vulnerable; thus its name.
result of the recognition on the part of education authorities that the world into which children are entering is one marked by technologies that provide access to knowledge and that it is the responsibility of the government that such resources be available to those with fewer resources. ENLACES worked with the preparation of teachers to work with computers through an innovative working method carried out in each school that entered the program. The teachers involved were not only instructed in how to use computers, but in how to use them as teaching tools. Thus, their training involved the preparation of projects with the use of new information and communication technologies.

The arrival of the improvement program for secondary schools contemplated from its beginning professional development activities for teachers, whose schools were incorporated into programs to foster change. The Professional Working Groups initially brought together teachers from the same school in order to discuss materials provided by the Ministry of Education, and to offer ideas on how to improve their performance in the classroom. With time, these groups came to focus in work related to the teaching content of each discipline, producing a large quantity of materials for this purpose, and generating a series of reports written by teachers on their “teaching experiences”. The most recent effort by these teachers has been their organization into networks in order to share experiences6.

At the same time, the CPEIP continued to offer courses financed by the teachers themselves, generally maintaining the traditional training course format. An exception in this regard was the Schools that Learn program, lead by one of the professionals of the Center, with activities for improving schools and teachers held on site.

Toward the end of this phase, a quite unusual initiative appeared in Chilean education involving having schools themselves be involved as enterprisers in their own change through the receipt of financing aimed at “purchasing” enhancement according to the needs of each institution. The program was know as Technical Assistance, and received funds from a loan from the World Bank for improvement of secondary school programs. Based on a group of institutions offering professional enhancement, the schools could use funds and contract services that it their opinions were best suited to fulfilling their needs (see, Ministry of Education of Chile, 1998).

Finally, this stage corresponded to an initiative which, without being directed specifically at the professional development of teachers, did so indirectly. This was embodied in Education Improvement Projects (PME). Each primary and secondary school could present a project (according to established guidelines) involving an activity or activities to improve teaching methods in the schools. In order to receive the support of the program it was necessary that teachers cooperate among themselves and design a project, and also involving the community in the task. This is one of the programs

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6 For a description of the development of this program, see: Ministry of Education of Chile, 2001.
most highly-assessed by teachers in relation to another program created subsequently that awarded schools whose students achieved good results in national achievement tests (Araneda, 2002).

Analyzing this phase, one notes that most activities related to the concept of teacher training moved between two poles. The first moved between the individual not located at the school and teacher learning activities carried within the school. The second moved between extrinsic motivation (money, official recognition of work carried out) and one centered on intrinsic motivation (improving one’s own work and student learning achievements):

**Figure 1**

Characteristics of the supply of in-service training (1990-1996)

<table>
<thead>
<tr>
<th>Intrinsic motivation (effect of participating in reform)</th>
<th>Extrinsic motivation (salary incentives or in-school compensation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Micro-schools</td>
<td>P 900 workshops</td>
</tr>
<tr>
<td>- Professional working groups and resulting activities</td>
<td>- Education Improvement Projects (PME)</td>
</tr>
<tr>
<td>- Entacies Workshops</td>
<td>- Technical Assistance</td>
</tr>
<tr>
<td>Individual learning - non-sited</td>
<td></td>
</tr>
<tr>
<td>Courses C.P.E.I.P.</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen, only the activities of CPEIP (its own courses and those offered by other certified institutions) are located in the upper right-hand quadrant. Most of the others are in the lower quadrants, indicating their location within schools and the participation of teachers, all being part of current reform programs. In some cases, we include to offer of stimuli or incentives for these. Those not offering extrinsic incentives, such as certification by CPEIP, which offers the possibility of better salaries, had to be based upon personal effort and convictions regarding the importance of the program on the part of participating teachers. In the case of Professional Working Groups, at least in the beginning this meant teachers dedicating free time; something difficult for secondary teachers to do.

For teacher training in programs such as P900, Professional Working Groups,
and Rural Micro-school Workshops, facilitators were education system supervisors, who proved to not always be prepared for the task. On the other hand, due to their nature, these activities were of the kind that in the 1990s were type that international studies pointed to us representing good in-service training: centered or located within the school, involving the participation of teachers, using materials that encourage putting into practice new curricular content and new ways of teaching and thinking learning about outcomes (Marcelo García, 1995; Avalos, 1998, Avalos, 1999).

THE 1996-2000 PERIOD

Although most previous activities involving teachers continued during this period, in that the programs for improvements in primary and secondary education continued, new initiatives emerged, marked by an important announcement regarding education policy. In his congressional address on May 21, 1996, President Eduardo Frei Ruiz-Tagle announced that it was necessary to strengthen the teaching profession in order to consolidate the Education Reform.

The policy of strengthening the teaching profession proposed in the address has several objectives:

- Emphasize the importance of teachers, and as such reward the best teachers with national recognition and through monetary incentives. In a sense, a similar measure had already been taken with the establishment in 1995 of the National Performance Assessment System, known as SNED (Law# 19.410) to establish awards for teachers of schools recognized as having “good performance” according to a set of criteria, but primarily for student test results.

- Recognize the need for direct governmental action in order to produce changes in the quality of initial teacher training, a theme that had not been touched upon in the preceding phase.

- Recognize the need for more structured activities to improve the quality of curricular knowledge of in-service teachers while at the same time offering opportunities to these teachers to be familiar with international experiences in quality teaching.

The results of these objectives have been activities receiving considerable

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7 The new actions presented in the address used for the first time the concept of “education reform”, although one must recognize that reforms have taken place since the beginning of the 1990s. The basis of this policy may be found in the Report of the National Commission for the Modernization of Education (1995), which recommended many of the measures that later were expressed in the presidential address.

8 A foreign study program was created for in-service teachers, known as an “internship” program which up to the year 2001 had benefited 4,138 teachers. The teachers, selected according to pre-established conditions, have spent up to 3 months abroad in schools of their specialty, and have even participated in degree programs.
budgetary support from the government in a time of good economic growth. A number
of them are administered by academic institutions which are chosen in a competitive
manner.

For the purposes of this study, two programs are of particular interest. One is
directed at improving initial training and the entrance quality of future teachers. The
other is aimed at improving curricular knowledge of in-service teachers.

The Program for Strengthening Initial Teacher Training (1997-2001), was
developed through a government grant of approximately US$17.5 million (2001 values)
and additional support that varies annually for awarding study grants in Pedagogy to
outstanding students coming out of secondary education.

Based on the presentation of projects for improving their activities in teacher
training, 17 university teacher training programs received national awards and
implemented their projects between 1998 and 2001\(^9\). The importance of the program
was due to two major factors: (a) offering financing to produce changes during a
prolonged period, since all previous programs of this kind had a time frame of no
more than one year; and (b) having established within the Ministry of Education an
area directly linked to initial teacher training and for support and monitoring of the
implementation of the projects.

The focus of all the projects was similar, and produced changes to a greater or
lesser degree in curricular structure, in the practical training of future teachers by
estabishing a system beginning at the start of the 4 or 5 years of their course, improving
academic and pedagogical training of new teachers, and improving the material
infrastructure of the institutions, with increased library holdings and computer resources.
The falling number of education students was quite decisively reversed\(^9\), and entrance
quality was improved, according to secondary school grade averages and academic
aptitude test results (college entrance test). There was an especially significant increase
in students entering into the specialties of secondary school mathematics and sciences,
although the figures here are still not satisfactory. Through the program of Scholarships
for Outstanding Pedagogy Students a growing number of students who meet established
standards have been aided\(^1\). National standards have been established to regulate teacher
training, and which will serve in the future to assess the quality of training provided\(^2\).

The original purpose of the Basic Training Program, directed at in-service
teachers, was to improve their substantive curricular knowledge. But the program
soon changed into one directed at informing and preparing teachers for implementation
of the new curriculum for the second phase of secondary education which was to be

\(^9\) Implementation continued through additional support during 2002.

\(^9\) Compared with 1997, the percent increase in new students entering teaching careers for early
childhood, primary, early secondary, and special education in 2001 was 14%.

\(^1\) The number of grants awarded increased from 122 in 1998 to 291 in 2002, and the percentage
of retention of these students varies from 87% to 98%, depending on the year of entry.

\(^2\) For a more detailed description of this program and its achievements, see B. Avalos (2002, to be
published).
introduced gradually. Using a public bid system, the Ministry of Education contracted institutions to carry out needed training of teachers, generally during school summer vacations, and with follow-up periods during the school year. By 2001, more than 130,000 teachers had been prepared throughout the country. The program was offered in a number of phases. The first consisted of creating awareness among teachers in their schools of the new curriculum. This was followed by one-week workshops in locales distributed throughout the country. The course was offered by bid-winning institutions which offered training specifically on the contents of the new curricular programs.

Each institution organized short sessions during which teachers discussed their implementation plans. This was followed later by in-school activities. These also involved training of school principals to organize management of the new curriculum in their schools. Late in the program, a phase was introduced called “In-depth Study” in order to complement what had been done in the first semester in regard to the more complex contents. But participation this phase has been less.

The activities described for this period represent a clear posture in regard to the need to strengthen the teaching profession, especially through the use of two main instruments: incentives to stimulate individual teacher activity in regard to improving teacher performance, and programs aimed at changing initial training as well as improving curricular knowledge of in-service teachers. Unfortunately, from the perspective of continuing training, in practice, these activities and programs are administered from within the Ministry of Education, without having linkage mechanisms that could improve coordination and mutual support.

Figure 2
New policies and actions for strengthening the teaching profession (1996-2000)

<table>
<thead>
<tr>
<th>INCENTIVES</th>
<th>PROGRAMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognition and stimuli to improve teacher performance</td>
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<td>SNED * Excellence Awards</td>
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<td>Internships and international studies for Teachers</td>
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<td>I(TFID) * Curricular Improvement (PPF)</td>
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THE 2000-2002 PERIOD

This period began with the government of Ricardo Lagos, and was preceded by a commitment to teachers to continue policies for strengthening the profession, in terms of salary and working conditions, and of professional development. The period began with three major concerns that mark the work of the Ministry of Education: reaching long-term salary improvement agreements, produce some kind of linkage between better salaries and the quality of teacher performance, and develop a coordinated policy of initial and in-service teacher training. I will not treat the first area here, but rather will enlarge upon the other two, since they are directly related with the subject of this paper.

QUALITY OF TEACHER PERFORMANCE AND FINANCIAL INCENTIVES

In the previous administration, and as a result of an obligation contained within the Teacher Act to establish a teacher performance assessment system, its establishment was debated and postponed. Municipalities, which are the primary administrators of public education, applied strong pressure to put such a system in operation. In opposition were many teachers and, more concretely, the labor organization, for fear that there were not sufficient guarantees of a just and transparent assessment process. The new government assumed this requirement of the Teacher Act in an organized fashion, establishing a commission made up of representatives of the three interested parties which for more than a year discussed and finally reached agreement on a procedure to put teacher assessment to the test.

From the perspective on continuing training, the agreement is important in the sense of opting for a training assessment the consequences of which are to offer opportunities for professional development in order to improve weak areas identified by the assessment. It adopts as assessment criteria with some modifications, the Standards of Initial Training Performance. Nevertheless, the system falls short in that it does not outline an assessment system that is in line with teacher career paths. That is, it does not change the teacher career concept present in the statute, that only recognizes merit for time of service and for training courses. This means, that at least up to the present, a policy has not been developed based upon assessment and incentives linked to positions in the teaching career such that it would give meaning to assessment and stimulate the practice of teaching that is "well done".

It should be noted that in regard to the previous initiative, the Chilean government has established in law a salary bonus to compensate teachers judged to be excellent by means of an assessment process separate from the one described above. This procedure is similar to that used in the United States through Advanced Certification awarded

13 Published as Framework of Good Teaching (Ministry of Education of Chile).
buy the National Board of Teaching Standards, or in England and Wales through the awarding of status of Advanced Skills Teachers. Its objective, other than awarding with a salary bonus those teachers judged to be meritorious, is also to identify a group of teachers in order to make up a Teacher Network that has support functions in the professional development of teachers and to provide mentors for practicing teachers and for those who are beginning their careers.\(^{14}\)

**A WELL-ARTICULATED POLICY OF INITIAL AND CONTINUING TRAINING**

In spite of the fact that during the administration of President Aylwin, attempts were made to develop a teacher training policy, this remained at the level of a report that had little impact.\(^{15}\) Faced with this situation, and recognizing the importance of possessing a systematic and far-reaching approach able to guide action in this area in the coming years, a discussion process was begun on the theme in the first year of the presidency of Ricardo Lagos, without advancing any further in this regard. Only in 2002 was the discussion taken up again, always within the Ministry of Education and with responsible parties from different programs linked to teacher training. Although the resulting report was not a definitive document, but limited itself to set priorities in order achieve budgetary support for 2003, there was an attempt to systematize what had been accomplished in the field of the professional development of teachers and to do so within the framework of a clear concept of continuing training (see Table 1).

From the perspective of the learning needs of teachers and their trainers, strategies are outlined that serve to meet these needs, ways of assuring quality through different forms of assessment are suggested, and factors are recognized that can either facilitate or complicate the effectiveness of these actions.

The lack of a medium-term in-service training policy could have affected budgetary decisions for the year 2003, in that the necessary stages of greater development for the most important actions developed during the previous year were not included in the new proposal: strengthening of initial teacher training, and a systematic program to improve knowledge of the curriculum of in-service teachers.

**ANALYTIC COMMENT**

An examination of the set of actions carried out in the 1990s regarding initial and in-service teacher training cannot but notice the quality and magnitude of the efforts carried out, above all when we consider what the situation was at the beginning of this decade. At the same time, this examination permits us to recognize its limitations.

\(^{14}\) A Teacher Network is a group of mentors of teachers of teachers.

\(^{15}\) Bases for the Formulation of Teacher Training and Enhancement Policies (Ministry of Education of Chile, 1993).
<table>
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<th>Needs</th>
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<th>Strategies</th>
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<td>Improved management of education</td>
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<td>Assessment of teachers and courses - Follow-up of programs</td>
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<td>Improve system supervision</td>
<td>Education system supervisors</td>
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<th>Quality assurance</th>
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<td>Time and opportunity for study</td>
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<td>Assessment receipt of information</td>
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ACHIEVEMENTS

In the area of achievements, the most important in my judgment are the following:

- Having developed, within the context of improvement programs for primary, secondary, and later, early childhood education, professional development activities for teachers based in-school and focused on collaborative learning. These activities were witnessed with greater and lesser success by supervisors of the education system, who played a role as facilitators which they heretofore had not done. In this sense, much of what is recommended by the best research and the best experiences practiced in professional development are carried out in Chile, with special focus on the poorest and most-isolated schools. The results, both for the P900 workshops, Rural Micro-schools, and for the Professional Work Groups, according to various assessments were generally positive. These correspond to a stage in which it was necessary to raise the self-esteem of teachers, attain their commitment to activities to reform the system, help them to help themselves, and this was done well. The new needs of assuring greater progress in student learning and the ability to put into practice new curricular content, as well as to verify the quality of teacher performance, led to other actions. These, as we have said, are centered on the assessment of teacher performance and the design of a program directed at strengthening school learning within the most vulnerable sectors of society – such as the Reading, Writing, and Mathematics Campaign which is already prepared, and can be begun in 2003.

- Shaking up teacher training institutions through the Strengthening of Initial Teacher Training program, and permitting the Ministry of Education to re-assume the coordinating and supervisory function for initial teacher training that it had lost due to re-organizations that occurred during the military regime. Significant changes were accomplished. Among them were bringing teacher training institutions much closer to the Education Reform and to schools themselves, revising training curricula and improving their functionality, instituting a graduated teaching practice system that has been very well-received by Education students, create the bases of a quality control system based on national standards and on a growing demand for quality for those who enter a teaching career. Especially important was the effort to improve the quality of teaching training institution instructors, with opportunities for scholarships and internships in international teacher training centers. There is much left to do. One of them is modifying curricula for training primary school teachers in order that they may specialize for the various sectors of learning of upper-level courses. Similarly, there is a

\[16\] This is the conclusion of MECE Rural (U. Austral and U. de Playa Ancha, 1998), of MECE Media (CIDE, 1999) and the P900 (Ministerio de Educación de Chile, 2000).

\[17\] In a study presented at the 1" Meeting on Teacher Training, organized by the Ministry of Education of Brazil and by the IDB, Denise Vaillant notes that Uruguay and Chile are the countries from which she was able to obtain information regarding efforts to improve teacher trainers.
growing number of teachers that are trained outside of the group of 17 institutions that participated in the Initial Teacher Training Improvement Project (FFID). Some of these institutions have incorporated the innovations of the FFID project, but others have not. It is a policy question to decide how one may extend the coordinating and supervisory influence of the Ministry of Education to these situations, and how to preserve this role within the institutions that make up the FFID. This subject has not been discussed within the Ministry of Education, and certainly any proposal of this order will require changes in current legislation.

In a similar manner that occurred with the Education Reform of 1965, a massive program was established to prepare in-service teachers for the new primary and secondary school plans and programs as these were published. This involved a great effort on the part of those responsible at the Ministry of Education. It was necessary to utilize teachers from universities and from other educational institutions to carry out the curricular preparation of in-service teachers, which assumed, for its part, informing these teachers who did not know the new programs, and in the case of the FFID institutions, were they themselves involved in the change processes of teacher training. This limitation, and the speed at which “training” was to take place to teach the new programs, resulted in some problems of quality of its execution and complaints (generally not official ones) of participating teachers. Nevertheless, it is important to note that the Basic Training Program involved a great effort by the government in carrying out free training courses which teachers could attend on a voluntary basis. Moreover, the program went beyond the usual practice in training courses in that it not only communicated the information, but also offered teachers opportunities for further study of the most difficult curricular themes once they returned to their schools.

Broaden the perspectives of many teachers of their own practice and how to improve it through the Foreign Studies Program. There is no doubt that in this time of internationalization of education, manifested by participation in international assessments, and by the similarity one observes in national education and national teacher policies, it is important for teachers to have the opportunity to know “how things are done” by their colleagues in other countries. The teachers who participate in this program do so based on their past records and also on the ability to focus their interests, by proposing a project they wish to carry out. Thus, some of them visit schools related to teaching in their areas of curricular specialization or their levels of specialization. They sometimes opt for intercultural education programs and for the teaching of children with special needs. Principals also have the opportunity to examine school management methods in

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18 Nevertheless, questionnaires administered to participants after their participation in the primary school training activities revealed general satisfaction of teachers who received the training (see the Final Report of the Assessment Panel of the Ministry of Finance on the Basic Education Training Program, June, 2002.)
other countries. All of this represents new learning for those who participate. No detailed assessments have been carried out on the impacts of this program, and the reports submitted by those who have participated have been varied. Initially, the first participants were not always well-received by their colleagues upon their return and what they could contribute as a result of their experiences was sometimes ignored. But other participants have been able to innovate and have grown professionally, maintaining contact between themselves and the institutions that received them during their travels.

- Greater receptivity by teachers of the idea that their in-class and in-school performance can be assessed, and that this assessment can lead to more useful in-service training programs. It is not yet clear how this linkage will be made once the assessment process begins and once we have results that point toward training needs.

**LIMITATIONS**

In spite of the achievements noted, there are unresolved questions in regard to in-service teacher training activities during the last twelve years.

**CONTINUITY OR DISCONTINUITY OF PROGRAMS**

Most of the activities carried out and which have been described as valuable, with impacts that have been assessed, have been part of programs with a finite duration. In one sense, this was justifiable in that they were often part of programs financed partially by external funding (World Bank loans) or domestic, but extraordinary funds (as in the case of Strengthening of Initial Teacher Training). But, although some activities can be of short duration with no ill effects, other require continuity, and more than this, they need to be part of the permanent responsibilities of the Ministry of Education. In practice, however, as new needs have appeared, they have been answered by specific actions that are not necessarily constructed upon existing programs, and given the limited resources, may even replace existing programs. For example, the workshops and activities for teachers, that are part of secondary education reform, run the risk of disappearing, partly because of lack of coordinated action between the Ministry of Education and municipalities (who maintain the public schools) and which have not been able to obtain sufficient budgetary support to somehow assure the continuity of such programs.

Another case is that of the cooperative workshops of teachers from the P900 Schools, whose practice will be modified in order to teach instructors the new focuses that the Ministry of Education has decided to utilize for teaching reading, writing, and math.
Regarding continuity of in-service teacher training activities that are carried out within schools, their current precariousness is due to two factors: the first is the concern for the unsatisfactory achievement of students in private schools that are government subsidized, and which is part is attributed to problems in teacher performance. This leads to seeking other more structured forms of producing changes in the knowledge and practices of teachers. On the other hand, there is the appearance of alternative views in regard to how to improve teacher performance aimed at producing the required changes in a more efficient manner. The most important of these alternative views is that which is based on the concept and incentives and performance assessment which we referred to above. Also competing for resources is a view of "horizontal" knowledge: teachers who learn from colleagues. This view is expressed in the projected Teachers Network, using teachers identified as "excellent" through performance assessment. An initiative to develop "national internships" of teachers from schools that are known to "do things well" is also part of the horizontal view of in-service training. These new proposals compete for funds with the others, and place the permanence of the latter in doubt. In order to reconcile these views and construct without destroying, perhaps it would be necessary to better specify the relation between different learning needs of teachers as products of their experience and the requirements of the education system. This involves recognizing that incentives, although encouraging improvements, are not effective if teachers do not know how to improve, or if there are not effective opportunities to improve (see Day, 1999). This leads us to underline the importance of trainers of trainers (Marcelo and Vaillant, 1995) and of appropriate strategies to produce different types of required teacher learning.

In regard to the above, it should be a policy priority of the State to maintain responsible monitoring and support of programs directed at initial teacher training and at the improvement of conceptual understanding of new curricula and the strategies to teach them to in-service teachers. Although the intention of maintaining this control is clear, budgetary requirements to carry it out are not assured, for such activities are not formally a part of the ministerial structure. This is due to the finite nature of these programs when they were approved, and the lack of prioritization of them in the face of other initiatives.

In the case of initial training, there is a need to assure that the revision of training curricula continues, and that improvement of the trainers of trainers and the system of assessment by standards continue to be financed. Changes in the FFID project in terms

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For example, high funding is maintained for a program of which no assessment of its impact on student achievement has been carried out (Araneda, 2002). The National Teacher Performance System, which awards schools with good results through a monetary bonus to their teachers receives 58% of the total budget assigned to special programs for teachers, including scholarships for pedagogy students, the Strengthening of Initial Teacher Training, Basic Improvement, foreign study grants, and national internships.
of its effect on the quality of new teachers entering the profession should be part of all
teacher training institutions, and not only of those that are part of this project. And it
is necessary that there be at the level of the education system a procedure to reimburse
teachers of schools who collaborate as mentors of students during their phase of teaching
practice.

Emerging or "systemic" policies

The above description suggests that, different from activities inserted into specific
reform programs such as MECE, more recent actions are a result of what one might
call "emerging policies". They are inserted in the national budget as activities directed
at responding to new problems, or to prior situations that are identified as new problems.
Upon their being proposed, however, there is no consideration of how they are linked
with the more permanent concerns of education and with the necessary conditions for
assuring successful teacher training. Said in another way, the new activities do not
always possess a structure that provides them with support, or they don’t foresee the
factors that will affect their success or the changes required for them to produce the
desired result. An illustrative case is that of the Teacher Assessment that will be carried
out in 2003, and which requires, for example, that a plan has already been formulated
to determine the way that teacher training will be provided to those teachers whose
performance proves to be in need of support. Existing workshops in schools could
carry out this task, but their existence, as we have noted, is beginning to be precarious.
Another case of lack of linkage with the education system produces the need to have
good teachers who can act as mentors of pedagogy students. Although teacher training
institutions, within the framework of the FFID program have been preparing teachers
for this task, no system for compensation, whether in time, money, or teaching resources
has been established for those who are mentors of teachers in primary and secondary
schools21.

In spite of the above, it is important to remember that there has been progress
toward a systematic teacher training policy, as seen in Table 1. However, the description
there of the relation between teacher learning needs, actions, necessary structures,
forms of assessing their quality, and possible limiting factors still await to be spelled
out in policy. In part, this limitation is due to the fact that their discussion has only
taken place between those within the Ministry of Education responsible for the set of
existing programs and who, therefore defend the continuity of the same.

21 The future Teacher Network will have a mentoring function. But at the moment there are
prepared teachers who carry out their functions with very little incentive or improvement in
their working conditions.
Limited Information

All policy and policy action needs to be nourished by information. One of the important elements at the beginning of the Secondary Education Reform was having at hand 13 studies that described and illustrated the problems in the system. Although assessments have been carried out of the major programs of the reforms of the 1990s, there are some whose effects on the work of teachers have not yet been studied. For example, it is important to know what factors of the processes for preparation of the new curriculum have resulted in learning and implementation on the part of teachers, and which have not (Ministry of Finance, 2002). The quality of the performance of teachers who enter the system needs to be studied in order to design support systems and to provide feedback to training institutions. The problem of the context in which teachers work is known informally, but the way that the management of schools and of municipalities, for example, support or hinder the professional development of teachers has been less studied. In order to define policies and to assess what new actions are, or are not necessary, we also need to have a more up-to-date base on who the teachers are in the system, about the situation of demand and supply, as well as studies of the feasibility of a State certification system for teachers and a support system for beginning teachers.

Conclusion: Looking Toward the Future. Building on Achievements of the Past

We have attempted to highlight the achievements of programs for teachers carried out since the beginning of the 1990s in Chile, emphasizing the different phases in the three periods of the Concertación. We have sought as well to show the limitations that, in my judgment, continue, and which although not especially serious at the moment, can be so in the future. Therefore, it is worth asking how one can use the achievements of other past and the demands of the future to build better structures for initial and in-service (and continuing) training that can guide substantive actions and budgetary decisions in the coming years.

Up to the present, teacher training is treated by the Ministry of Education through a series of programs under different administrations and including activities of the Center for Educational Enhancement, Experimentation, and Research (CPEIP). This facilitates an expeditious execution of activities, but does not produce the necessary

22 A study in progress will provide information on the theme for regions of Chile – the capital and 8th Region (Proyecto Fondecyt No. 1020218).

23 The name given to the coalition of political parties that has governed Chile since 1990.
linkages and coordination between programs (see Avalos, 2002). The CPEIP has continued to add small, but innovative programs to its usual activities of accrediting training and stimulating the supply of training by other institutions. But it has not assumed a greater role in the field of on-going training. On the other hand, other institutions not linked to the Ministry of Education carry out continuing training activities, the effects of which we have only partial information, although they presumably complement what the State does. This points to a clear need for linkages between policies and action. This can be done using two instruments: one of which precedes the other in time.

DEVELOPMENT OF A NATIONAL CONTINUING TEACHER TRAINING POLICY

Concern for the quality of state-subsidized private education, as well as for private education (to judge by the results of Chilean students in international tests), indicate that practically the only common factor in these kind of establishments that are so different in their available resources, is that of teachers. Therefore, having a broad and nationally-shared policy is an urgent necessity.

Given the quantity of schools that carry out teacher training, and the diverse sectors (not necessarily educational) that have a stake in the quality of this training, I suggest that the Ministry of Education convocate a team of representatives from various sectors to be charged with formulating medium-term policies for the continuing training of teachers. Its mandate would be to produce a systematic policy that includes the three points of the triangle that comprise the professional development of teachers: training activities, performance assessment (that allows us to diagnose needs) and incentives. This group would have at its disposal existing studies and others it could contract, international data on continuing professional development (on continuing training), and the experience of programs developed in Chile since the 1990s by both the government and other institutions. Its product, similar to the Commission on the Modernization of Education, would be a report, indicating themes, priorities, strategies, and modes of financing of activities directed at raising the quality of the performance of our teachers.

INSTITUTIONALIZATION OF CONTINUING TEACHER TRAINING

Based on the above, and in order to avoid a national policy that lacks institutionalization for its execution, it would be useful to consider the establishment of an institution for the continuing training of teachers (of a semi-governmental character). Its task would, first of all, be to see to it that policies are coordinated, assure necessary coherence, and linkages between activities, and investigate, monitor, and support the carrying out
of changes deemed necessary. This would require the representative participation of ministerial teams as well as other government agencies who carry out teacher training in connection with their policies. It would also count on an ad hoc technical team for the implementation of actions that are part of such institutionalization.

If these two highly-related initiatives are put into practice, we can expect that in the mid-term, (two or three years) Chile can progress decisively toward a national system for the continuing training of teachers that will serve to improve the quality of supply in the field of teaching and, above all, improve the quality of the teachers who work in the public and private schools of our country. Especially, we will have ceased to respond only to the present, and will have begun to foresee the future.

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Teacher education in the United States of America: Recent trends in its policies and practices

_Eleonora Villegas-Reimers*

For the past 20 years, education reform at all levels has been front and center news in the United States of America, and has been among the topics of greatest importance in the plans and actions of educators, policy-makers, leaders, and politicians in the country. This latest wave of educational change, however, is not unique to the United States. In fact, since the 1990s many countries in the world, both developed and developing countries, have been engaged in serious reviews and transformations of their education systems and practices (Tatto, 1999).

In the United States, many point to the document *A Nation at Risk*, published in 1983 as the turning point that initiated these changes in the country. Twenty years later, the reform movement is stronger, and the transformation of educational policies and practices is still moving at a rapid speed, partly due to the fact that to this date, elementary and high school students' performance in a variety of tests of subject matter knowledge lags behind the performance of students in other developed and industrialized nations (Finn, 1992; Beaton et al., 1996; Organization for Economic Cooperation and Development, 2000). Educators and policy-makers in the United States

are involved in serious data gathering and research to try to find effective ways of preparing the next generation of citizens, and policy-makers are also moving along with promoting and implementing changes that aim at improving educational practices, teaching practices, and students' performance.

Even though this latest educational reform in the United States has focused in many aspects and players of the educational field, this paper concentrates exclusively on elementary and secondary education teachers and their preparation, and examines the current state and trends of policies and practices implemented in the country as a whole. The main goal of this paper is to provide an informed and critical view of current policies and practices in the United States that can generate discussions among policy-makers and educators interested in contributing to the study and transformation of teacher education in the Latin American and the Caribbean (LAC) region.

In no way it is the intention of this paper to present the perspective that the methods and practices used in the United States must be adopted in countries of the LAC region. In fact, offering any kind of suggestions on how to improve any aspect of the education system and/or the education process in any country of the world should be preceded with a warning. The particular characteristics of each country, or each local area or even each institution, that is, its history and historical moment, its financial situation, its culture and social beliefs and values, and the characteristics of its education, organizations and practice, make it almost impossible, and certainly ineffective, to develop an "ideal model" of transformation which has worked in one set of conditions and then transport it to be implemented in a whole new context. Research has shown that process does not work (see, for example, Johnson, Monk & Hodges, 2000; Johnson, Monk & Swain 2000; Marcondes, 1999). In fact, successful education reforms have been initiated by 'internal' players (not only outside agencies or agents), and have involved teachers in the planning and implementation process (See, for example, Day, 2000; Klette, 2000; Morris, Chan & Ling, 2000; Villegas-Reimers & Reimers, 1996; Pierce & Hunsaker, 1996).

This paper has been organized in sections to facilitate its use. It begins with a general description of the changes that have taken place in the country in regards to teacher education, and explores some of the origins of such changes. It then follows with a discussion of the major conceptual shift that has served as the framework to the transformation of education and teacher preparation in the United States, that is a transformation that has moved society from conceiving teachers as 'workers' and their preparation as 'training', to conceiving them as 'professionals' and their prepara-
tion as 'education and professional development'. The implications of such paradigm change have been significant, as the country has begun to transform the structures of schools, of teacher education institutions, and of the interaction between these two institutions as a result. The country has also begun to transform the process by which educated individuals become teachers, the kinds of knowledge, skills and attitudes they are expected to have, and the kind of performance that is expected of them. All of these changes are discussed in detail in this overview. The paper ends with a summary and general recommendations for policy-makers and educators.

In a nutshell: What has been changed on teacher education in recent years in the United States, and where are we now?

Teacher education in the United States has changed dramatically in recent years. The changes are diverse, and it is difficult to pinpoint to the origin of so many transformations. However, there are two driving forces behind these changes: one is intrinsic, coming from within the community of educators (the teachers, researchers, policymakers, administrators, etc.); the other is external, coming mostly from government officials, both at the State and Federal levels. The former force can be seen in a push to think of, treat, and educate teachers as professionals; the latter can be seen in a push for accountability, developing standards and measuring teachers’ performance and preparation against those standards.

These two forces, although separated here for the purposes of description and analysis, have been working together in many ways, affecting one another in creating some common directions, but also creating tensions that are still very much affecting the process of educational change and teacher preparation. The results, as can be seen at this point in time, include:

- Teachers are now recognized as professionals: individuals who are experts in learning and teaching, who develop new knowledge by doing research, who are constantly reviewing and evaluating their own performance and the results of such performance by looking at their students’ progress, who meet regularly with colleagues in the field to discuss relevant professional themes, and who are constantly renewing their knowledge and learning, and have the support to do so (both financially and time-wise).

- There are specific standards that the teaching profession has developed that must be met by all of its members. These standards refer to what is expected of teachers before they are certified or licensed (type of preparation they complete, number of practicum hours, content of their courses, performance in standardized tests); what is expected of them in the classroom and the profession (professional development opportunities and challenges, and expectations of their continuous learning both informally, and formally by completing a masters degree); what is expected of the institutions that prepare them (selection criteria, curriculum, practicum hours, etc.); and what is expected of the students they teach (as measured by their performance in standardized tests).
There are significant curricular changes - both in the schools and in the teacher preparation institutions - that respond to changing demographics, a new understanding of how children learn, and a move toward integrating the schools and the communities where they are located. These changes include a push for a multi-cultural and anti-bias curriculum, more inclusive curricula and practices that address the learning and developmental needs of all children and teachers, a stronger focus on basic subject-matter (math, reading, writing, natural sciences, and social sciences), and a stronger focus on involving the school, its activities and personnel in the life of the community.

There have been significant changes, also, in the institutions of teacher preparation in the country. Even though these continue to be institutions of higher education (colleges and universities), they are now working more closely together than ever before with elementary and high schools as partners in the process of preparing teachers. One example of this strong connection is the now growing model of Professional Development Schools, described in detail in this paper. Teacher preparation institutions have also changed their curriculum, practicum opportunities, and forms of evaluation of teacher candidates to match more closely together the expectations set by the federal and state governments and by national accrediting agencies on teachers' performance. They have also revised their teacher education curriculum to match more closely with the curricular frameworks for each elementary and high school grade level developed by the Federal and State governments, which is perceived as a new and more explicit move towards centralization in a traditional decentralized system.

All of these changes are still very much in the process of being implemented and revised, and each of the 50 states in the country is in a different place on the continuum that connects the traditional ways to these new vision of teachers and their preparation. All of these changes are described in more detail in the next few sections.

The core of the reform: From a conception of teachers as 'workers' to teachers as 'professionals', and from 'teacher training' to 'teacher education and professional development'.

For years, the preparation of teachers in the United States, as in other countries, was described as teacher training; this label reflected the actual process of giving prospective teachers or non-certified in-service teachers some subject matter knowledge and some pedagogical tools so that they could transfer that information to their students. Because of the more sophisticated view that we now have about the process of learning and teaching, and because of the increasing complexity of the role teachers are called to play in the preparation of the next generation of citizens, teachers have been now recognized as professionals, and thus their preparation has gone beyond simple training.

Teacher training is now only used to refer to specific short-term courses or learning opportunities that teachers may receive, mostly on the job, to learn a particu-
lar skill (for example, a training on the use of a particular computer program, or a training on how to use a particular curricular material). The actual preparation of teachers and their continuous education is now referred to as teacher education and professional development, as those terms reflect more effectively the fact that teachers are professionals, their job is a complex process of helping students learn, and thus their preparation is not a one-shot training (or a mix of independent opportunities), but rather a life-long process of connected opportunities for learning and development. Professional development includes formal experiences (such as completing an initial or advanced program of teacher preparation, and also attending workshops, institutes, and professional meetings, mentoring, doing research, presenting at conferences, etc.), and informal experiences (such as reading professional publications, viewing television specials related to an academic discipline, joining study groups with other teachers, keeping a learning journal, etc.) (Ganser, 2000).

This perspective of teacher education as a long-term process that includes regular opportunities and experiences planned systematically to promote growth and development has represented such a dramatic shift in the United States, that many have referred to it not only as a 'new image' of teacher learning or a 'new model' of teacher education, but also as a 'revolution' and a 'new paradigm' of education (Cochran-Smith & Lytle, 2001; Walling & Lewis, 2000).

This new paradigm of teacher education has several characteristics, which are explained below. As a whole, most states in the United States are moving in the direction of implementing this new paradigm or are already using it, and their teachers and their education reflect these characteristics.

- Teacher professional development as a paradigm is based on constructivism rather than on a transmission-oriented model. As a result, teachers are treated as active learners (Lieberman, 1994; McLaughlin & Zarrow, 2001) who are engaged in the concrete tasks of teaching, assessment, observation and reflection (Dadds, 2001; Darling-Hammond & McLaughlin, 1995; King & Newmann, 2000). Several research studies have shown that when the constructivist method is used in the preparation of teachers, the results are quite positive: teachers who are engaged, reflective, thoughtful and effective (Van Strat & Gibson, 2001; Darling-Hammong & McLaughlin, 1995). A few new studies, however, have been critical of this method when applied to teacher preparation, as it appears to be most effective only with middle class learners, or only when used in very specific contexts (Richardson, 1997, 2001; Mintrop, 2001). Thus, more research is needed, in particular if it were to be applied in developing nations.

- It is conceived of as a long-term process, as it acknowledges that teachers learn over time. As a result, connected experiences (rather than one-shot presentations) are thought of as most effective as they allow teachers to relate prior knowledge with new experiences (Cohen, 1990; Ganser, 2000; Lieberman, 1994; Dudzinski et al., 2000). Regular follow-up support is perceived as an “indis-
pensable catalyst of the change process” (Schifter, Russell, & Bastable, 1999, p. 30).

- It is conceived as a process that takes place in a particular context. Contrary to the traditional staff development opportunities that did not connect the “training” with the actual experiences in the classroom, the most effective professional development is based in schools, connected to the daily activities of teachers and learners (Abdal-Haqq, 1996; Ancess, 2001; Baker & Smith, 1999; Darling-Hammond, 1998; Durlincki et al., 2000; Ganser, 2000; McLaughlin & Zarrow, 2001). Schools are transformed into communities of learners, communities of inquiry (McLaughlin & Zarrow, 2001), professional communities (King & Newmann, 2000) and caring communities (Jenlink & Kinnucan-Welsch, 1999) because teachers are engaged in professional development activities (Lieberman, 1994). The most successful teacher development opportunities are “on the job learning” activities such as study groups, action research, and portfolios (Wood & McQuarrie, 1999).

- Many have identified this process as one that is intimately linked to school reform (Guskey, 1995b; Loucks-Horsley & Matsumoto, 1999) as professional development is a process of culture building, and not just skill-training (Cochran-Smith & Lytle, 2001), that is affected by the coherence of the school program (King & Newmann, 2000). In this case, teachers are empowered as professionals, and they should be treated in the same ways as society expects them to treat students (McLaughlin & Zarrow, 2001). Teacher professional development that is not supported by school and curriculum reform has not been effective (Guzman, 1995; Schifter, Russell, & Bastable, 1999) in the United States or elsewhere.

- A teacher is conceived of as a reflective practitioner, someone who comes into the profession with a certain knowledge base and who will build new knowledge and experiences based on that prior knowledge (Cochran-Smith & Lytle, 2001; Jenlink & Kinnucan-Welsch, 1999; Lieberman, 1994). In doing so, the role of professional development is to facilitate teachers’ building new pedagogical theory and practice (Darling-Hammond & McLaughlin, 1995; Schifter, Russell, & Bastable, 1999), and to help teachers improve their expertise in the field (Dadds, 2001).

- Professional development is conceived of as a collaborative process (Darling-Hammond & McLaughlin, 1995). Even though there may be some opportunities for isolated work and reflection, most effective professional development happens when there are meaningful interactions (Clement & Vanderbergh, 2000), not only among teachers, but also between teachers, administrators, parents and other community members (Grace, 1999).

- Professional development may look and be very different in diverse settings, and even within one setting there may be a variety of dimensions (Scribner, 1999). There is not “one best” form or model of professional development that has
been implemented everywhere. Schools and educators evaluate their needs and cultural beliefs and practices to decide which professional development model may be most successful in that particular context. It is clear in the literature that workplace factors (one significant variable of 'the context') such as school structure and school culture can influence teachers' sense of efficacy and professional motivation (Scribner, 1999). Apparent contradictory results reported in the literature (such as the fact that some studies conclude that the best professional development is that designed and implemented at a smaller scale, while others say that it is better at a larger, system-approach scale) may be explained not by deciding that one study is more accurate than another, but by examining the contexts in which the different studies were completed. Guskey (1995b) argues strongly about the importance of paying attention to context so that the "optimal mix" (p. 3) of professional development processes can be identified and planned. In other words, professional development has to be considered within a framework of social, economic, and political trends and events (Woods, 1994). “The uniqueness of the individual setting will always be a critical factor in education. What works in one situation may not work in another”... “Because of the enormous variability in educational contexts, there will never be ‘one right answer’. Instead, there will be a collection of answers, each specific to a context. Our search must focus, therefore, on finding the optimal mix —that assortment of professional development processes and technologies that work best in a particular setting” (Guskey, 1995a, p. 117).

This new perspective on teachers and their profession has had a significant positive impact on teachers’ beliefs and practices, students’ learning, and on the implementation of education reforms, not only in the United States but also in other developed countries (Baker & Smith, 1999; Falk, 2001; Educational Testing Service, 1998; Grosso de Leon, 2001; Guzman, 1995; McGinn & Bordhen, 1995; National Commission on Teaching and America's Future, 1996, 1997; Tatto, 1999; Young, 2001). In fact, “investments in teachers’ knowledge and skills net greater increases in students’ achievement [in the United States] than other uses of an education dollar” (Darling Hammond, 1999, p. 32).

The government’s response to the professionalization of teachers: Increased regulations of the teaching profession (licenses, certificates, accreditation, and teachers’ tests).

The last few decades in the United States has seen an increase in the establishment of new regulatory policies in regards to teacher education and professional development, which indicate a move toward more centralized development and evaluation standards. There are three inter-related processes followed in the country that intend to assure high quality of teacher preparation processes, and strong qualifications of teachers. These processes are: the accreditation of teacher education institutions, the certification, and the licensing of teachers.
Accreditation is an evaluation process that determines the quality of an institution or program using predetermined standards" (Oakes, 1999, p. 1). In the United States, accreditation of teacher preparation institutions is carried out by each of the States where the institution is located, and also, on a peer review basis, by competent, non-governmental agencies such as national, regional, and/or local associations. These agencies, joined together on a voluntary basis, develop, evaluate, and apply standards to education institutions that are seeking accreditation to be recognized as teacher preparation institutions. The best-known accrediting agency in the country is NEASC, the National Council on Accreditation of Teacher Education. It is recognized by the U.S. Department of Education, and it includes the membership of 46 states, plus the District of Columbia, and over 30 professional organizations, including the National Board of Professional Teaching Standards.

The current standards NEASC uses when evaluating teacher education institutions are organized within the following categories:

- Design of professional education: curriculum delivery and community
- Candidates in professional education
- Professional education faculty
- The unit for professional education

Certification is "the process by which a non-governmental agency or association bestows professional recognition to an individual who has met certain predetermined qualifications specified by that agency or association" (Oakes, 1999, p.1), while "Licensing is the process by which a governmental agency grants a license or permission to an individual who has met specified requirements" (Oakes, 1999, p.1). As it exists in the United States in the present, however, most states certify their teachers after they have completed specified requirements, which usually include at least completion of a teacher preparation program at the undergraduate level (which meets certain standards), a significant number of hours of supervised practicum experiences in the classroom, and a certification test (which usually emphasizes the teachers' subject-matter knowledge). Yet, most states are moving in the direction of offering this type of certification as an initial step in the professional preparation of teachers, and offering a license to their teachers once they have completed a number of years of experience in the classroom (usually between 3 and 5) under the mentorship of a more experienced teacher, and a number of continuous education units or credit hours. In 1998, forty-seven states had this kind of policies defining requirements for continuing professional development in order for teachers to be licensed by the State (Council of Chief State School Officers, 1998).

It is important to note, that the processes of certification and licensing are changing in most states currently, as new federal guidelines and standards are being discussed and implemented. Between the 2000-2001 and 2001-2002 academic years, 39 states changed their requirements for certification and/or licensure, in degrees that ranged from minor to profound (Kaye, 2001). In addition, the process of accrediting teacher preparation institutions is also in a constant process of change, as the standards used
to evaluate whether an institution should receive the accreditation are constantly being revised to match the new state standards for each grade level and subject matter. Literally, in some states, these standards are changing from year to year, and this is partly due to new national regulations in this regard.

This trend of increasing national regulations is also a relatively new development in the country. As a result of a review of the Higher Education Act in 1996, the “Higher Education Amendments” were signed by President Clinton in 1998. This document includes a “Teacher Quality” section (known as Title II) which has two purposes: “to establish grant programs for partnerships between K-12 schools [elementary and secondary schools], and institutions of higher education and for states to improve teacher quality; and to lay out new accountability requirements for states and institutions that prepare teachers” (Earley, 2001, p. 1). These new guidelines were partly the result of a very influential document prepared by the National Commission on Teaching and America’s Future under the title What Matters Most: Teaching for America’s Future, which recommended actions that should be taken by institutions of higher education, state teacher licensing agencies, and local schools.

Under Title II, teacher preparation institutions must report annually results of their efforts in preparing teachers. These results include the number of students in their programs, the number of hours each student-teacher completes at practicum sites, the pass rate of students who have completed a teacher education program on each of the state’s licensure examinations, and whether the institution is accredited by the State. These requirements have made the programs of teacher education more uniform in their content, as they are mindful of the content included in the State tests; and has begun to force teacher education programs and institutions to develop standards that match those presented at the National level. It has also generated a relatively new culture of rigorous testing processes of new teachers’ knowledge, and as a result, it has created a renewed emphasis on subject-matter knowledge, over and above the development of the skills, attitudes, and values that are so necessary for success in the teaching-learning process. In 1998, thirty-eight states required some form of teacher assessment at some point in the certification and licensure of new teachers. “Among the states with teacher assessments:

- 36 states assess ‘basic skills’
- 27 states assess ‘professional knowledge of teaching’
- 22 states assess subject matter knowledge
- A total of 28 states assess teachers with two or more of these components” (Council of Chief State School Officers, 1998, p. 27).

One of the newest proposals of the current administration is that known as “Let no child be left behind,” (Aldridge & Goldman, 2002) which again calls for more accountability of teachers’ work by measuring their students’ performance in addition to giving more financial resources to initiatives that target improving school performance of children in elementary and high school levels.
WHO ARE THE TEACHER CANDIDATES? WHAT ARE SOME TYPICAL
CHARACTERISTICS OF TEACHERS IN THE UNITED STATES? HOW HAVE THEY
CHANGED IN THE LAST FEW YEARS?

The characteristics of the new paradigm of teachers as professionals described above,
and the many new regulations and standards that are currently in place, require that
only those professionally educated to be teachers (and thus who hold a degree and
certification or licensure) are allowed to teach in the classroom. However, given a
shortage of teachers in the country (which is not generalized but is found emphasized
in particular communities—urban and poor—and in particular fields, such as Math and
Science, Special Education, and Bilingual Education) (Darling-Hammond et al., 1999),
not all current teachers match the expected description. But the recent trends show
that there is a move in the direction of having more and more teachers in the country
who have these characteristics:

- Candidates who are accepted into teaching education programs have at least
  completed secondary education and thus, have at least a high school diploma.
  Some may enter teacher preparation programs at the graduate level, and in that
  case, they have already completed an undergraduate degree (a recent trend is to
  require that this undergraduate degree is in a specific arts and science major
  such as History, Literature, Math, etc.). Regardless of level of entrance into
  teacher preparation programs, all candidates are expected to have some general
  academic knowledge of subject matter, a solid academic background that gives
  them basic communication, critical thinking, and other professional skills that
  initial programs of teacher education will build on.

- The goal in the country at this time is that all teachers begin their teaching ca-
  reers after completing an initial teacher education program in their area of spe-
  cialty. However, a few college-educated individuals who have an arts and sci-
  ence degree are given “special provisional certification” so that they can teach,
  even though they may have never received any particular academic preparation
  in teaching. The number of teachers in that situation is small, however, and
  usually the school systems and the schools offer mentors to guide them through
  the complex tasks of teaching, and expect them to complete certification courses
  and requirements in a short period of time. Another factor that has been identi-
  fied recently as a problem and that policy makers are beginning to address is
  “out of field” teaching; this means that some teachers who have specialized in a
  particular subject area such as History, are assigned to teach other subject areas,
  such as Science. This problem is particularly evident in subject areas such as
  Math and Science. States and school districts are working on trying to reduce
  this problem to a minimum.

- Initial teacher education programs usually last at least 4 years (in some states is
  5 years) and they are post-secondary education. During this time, candidates
develop at least the most basic knowledge (both of pedagogy and of subject-matter), skills and dispositions required of all teachers entering the profession. (The actual general content of teacher preparation programs is described below in more detail). There are a few "alternative" programs that offer "crash" courses on teacher preparation to give provisional certification to college graduates who would like to become teachers. These alternative programs have received contradictory reviews. On the positive side, many find that professionals in fields other than education can be excellent teachers by going through these courses that help them develop pedagogical knowledge and skills (Resta et al., 2001, Wilson et al, 2001); on the negative side, many feel that these programs are not rigorous enough, the teachers who graduate from them are not as effective as those who complete a full teacher education program, and they also help keep the idea that "just about anyone can teach," taking value away from teaching as a profession (Berry 2001).

- Most states are moving in the direction of beginning to require teachers have a Master's level education. Given the current shortage of teachers, that policy has not been implemented widely, but the trend seems to indicate a move in that direction. A majority of states at this time offer provisional certification to teachers who have finished an initial teacher preparation program at the undergraduate level, and only offer "standard certification" or licensure after some years of classroom experience, supervised practical experience, and professional development courses and other experiences. Some have proposed that a Masters degree be required to obtain the licensure.

- Schools and institutions of teacher education support the development of all teachers, whether new or experienced teachers, so that even after many years in the profession, experienced teachers continue to learn and improve their teaching. In most states, schools are equal partners to institutions of teacher education. Schools are communities where all members (children, teachers and administrators) are conceived of as active learners. This trend is discussed later in this paper in more detail.

- School personnel (teachers, principals, other administrators, etc.) have some time and some financial and human resources to support teachers' continuous growth and learning. Linda Darling-Hammond, a well-known American educator, has pointed out, however, that the United States is among the developed countries that offers the least amount of time for teacher professional development, as schools and parents expect teachers to be in the classroom all the time. In most European and Asian countries "teachers spend between 15 and 20 hours per week in their classroom, and the remaining time with colleagues developing lessons, visiting parents, counseling students, pursuing research, attending study groups and seminars and visiting other schools. By contrast most U.S. elementary teachers have 3 or fewer hours for preparation activities per week (or only
8 minutes per every hour in the classroom), while secondary teachers generally have 5 preparation periods per week (or 13 minutes for every hour of classroom instruction" (Darling-Hammond, 1996, p. 8).

- Despite that, teachers do have some time and some financial resources available to continue with their education both formally (taking courses, participating in research activities, attending and presenting at conferences, etc.), and informally (attending study groups, observing colleagues teach, planning curriculum together with other more-experienced teachers, reflecting on their experiences in a systematic way, etc.). There are a number of professional organizations and foundations (both private and public), outside of the National and State Departments of Education that offer grants and other opportunities for teachers' continued education and professional development. Not all efforts and supports come from the State or the School district.

- Schools and other institutions in society provide support for teachers' professional growth by encouraging creation of study groups, research groups, partnerships among teachers or among schools and other institutions, etc. and providing them with time and other resources to do so.

- There are "psychological" and "cultural" conditions that allow for and strongly support teachers' professional development.
  - Conception of teachers as professionals, and thus respect as such
  - Trust that teachers can learn by themselves and with others
  - Trust that time away from the classroom means investment in teachers' improvement (and not "just a waste of time").
  - Listening to teachers as "experts"
  - Support of teachers' initiatives

- Changes and education renewal happen at many different levels simultaneously. The United States has designed and implemented significant changes at a very small scale (at a school or at a local district) and at a large scale (state and national reforms). The success of reforms of teacher education as a whole has been correlated to the success of school and education system reforms, and vice-versa.

WHAT DO TEACHERS NEED TO KNOW?

From training that focused on a few teaching techniques and some content-knowledge, to a complex process of supporting the professional development of educators. For years, educators and other related professionals have argued whether teacher preparation should emphasize content-knowledge or pedagogical knowledge. Over the course of a few decades educators in the United States, as in many other countries of the world, have emphasized one or the other, in an attempt to improve students'
performance. Under the new conception of teacher professional development, there is a recognition that the work of teachers is much more complex than just transmitting specific information, and knowing how to teach, and thus a broader and more inclusive perspective has been adopted. Different authors (for example, Grosso de Leon, 2001; Reynolds, 1992; Jegede, Taplin & Chan, 2000; Borko & Putnam, 1995; Glaser, 1987) have offered lists of types of knowledge, skills, dispositions, and values effective teachers must have a mastery of. As a result, most teacher preparation institutions in the United States are implementing programs that include the elements listed below. However, it is worth noticing that at this particular historical time, when there is such a heavy emphasis on testing and performance assessment, a majority of programs are emphasizing the teaching of subject matter over and above the development of practical skills or other elements included in this list.

These are the type of knowledge, skills, values and dispositions that teacher education programs are attempting to develop, support and promote in new and experienced teachers:

- General pedagogical knowledge: this includes knowledge of learning environments and instructional strategies; classroom management; and knowledge of learners and learning.
- Subject-matter knowledge: this includes knowledge of content and substantive structures; and syntactic structures (equivalent to knowledge about a discipline). As mentioned before, this element of teacher education is the most emphasized currently (as of the last 5 years), as can be seen by the fact that most States are implementing teachers' tests of subject matter knowledge which teacher candidates must approve before receiving their initial certification.
- Pedagogical content-knowledge: a conceptual map of how to teach a subject; knowledge of instructional strategies and representations; knowledge of students' understanding and potential misunderstandings; and knowledge of curriculum and curricular materials.
- Knowledge of student context and a disposition to find out more about students, their families and their schools. Knowledge and disposition to involve families in the day-to-day work of the schools (Morales, 1998). A recognition that not all students are the same, and not all communities are the same.
- A repertoire of metaphors in order to be able to bridge theory and practice.
- External evaluation of learning.
- Clinical training.
- Knowledge of strategies, techniques and tools to create and sustain a learning environment/community, and the ability to employ them.
- Knowledge, skills and dispositions to work with children of diverse cultural, social and linguistic backgrounds (Alidou, 2000; Gay & Howard, 2000; Weisman, 2001). This is discussed in more detail below.
- Knowledge and attitudes that support political and social justice as social reali-
ties make teachers very important agents of social change (Samuel, 1998; Norberg, 2000).

- Knowledge and skills on how to use technology in the curriculum (This is also discussed in more detail below).

From preparing teachers to teach the average child, to preparing teachers to educate all of the nation's children: The Multicultural and Anti-bias Education movements, and the Bilingual Education Movement.

As was mentioned before, most teacher preparation institutions in the United States as well as most accrediting agencies in the country have moved to support and implement a strong multicultural, anti-bias curriculum, and bilingual education in their teacher preparation programs, as it has been shown that this openness is key to an effective program of teacher education and development (Gorski et al., 2000; Norberg, 2000). It is expected now, at the beginning of the XXI century, that all teachers in the country will have particular knowledge and skills about how to work with children with a variety of cultural, racial, socio-economic, linguistic, and family backgrounds, as statistics show a significant growth in the diversity of the children who attend public schools in the country. For years, tracking was common in the United States, and usually the children who appeared in the lower tracks were those who differed from the majority population (either they were not speakers of English as a first language, or they came from lower socio-economic status families, for example). In an attempt to offer equal opportunity for all children to learn, a move to recognize the differing needs of children with different backgrounds began. A multicultural and anti-biased curriculum is thought of as ideal in most schools, and thus teacher preparation institutions have revised their own curriculum to respond to those needs. The national trend now is to incorporate not only information about different national cultures in the curriculum, but also develop in new teachers positive attitudes and effective skills to work with children with diverse family, cultural, linguistic, and / or socio-economic backgrounds. Aside from being reflected in the school curriculum and the teacher preparation curriculum, it is also reflected in the standards upheld by state, federal, and professional accrediting agencies.

From practica at the end, to practica throughout: A strong focus on practice.

The value of practice in the preparation of teachers has remained high in the United States; in fact, all teacher preparation programs require student-teaching a minimum of one whole semester, but most actually require more than that. States and accrediting agencies also have specific expectations about the number of hours that student-teachers spend in the classroom practicing the skills necessary to teach, either measured in hours or by course credits (Council of Chief State School Officers, 1998).

The timing of a practicum in the whole process of teacher preparation, however, has been changing in the last few years. For a long period of time a few decades ago, teacher practicum was found at the end of teaching preparation programs, as a recognition that students needed to learn knowledge and skills before they could be allowed
to enter the classroom to implement their teaching knowledge. That ‘tradition’, however, was transformed into valuing practice as an integral part of the teaching preparation process. As a result, teaching practicum was a significant aspect of almost all 4 years of teacher preparation. Students would begin practica early on in their program, even if only to complete rigorous observations of experienced teachers in action, and increase their involvement constantly, until by the end of the last year of preparation the student-teacher would actually teach several classes under close supervision of a cooperating teacher. At the graduate level, where teacher preparation programs are much shorter (usually not more than two years, and some times even less than that), a practicum is also required throughout. In this case, most students do not do just one semester of student-teaching, but a whole internship where they join the school personnel from the beginning of the school year, are in the classroom every day for the full teaching day, and take increasing responsibilities as the school-year goes along, ending with a few weeks of “take over” time, where the teacher candidate is in fact the teacher under the supervision of a cooperating or mentor teacher.

However, in the last few years with the increasing emphasis on mastery of subject-matter knowledge and the fact that student-teachers are tested on subject-matter (but are not evaluated in their practical skills and abilities to work in a classroom with the same emphasis) in order to obtain their certification, student-teaching has began to be moved, once again, to the later part of the teacher preparation programs. In that way, teacher candidates concentrate on studying subject-matter at the beginning of their program, and only later on, try to learn the practical aspects of teaching in classrooms. Some teacher preparation institutions do encourage (and some require) students to be in a school throughout the 4 years, even if their presence in the beginning years is only for a few hours a week, and mostly to complete systematic observations of teachers and students.

Whether this trend of moving the practicum to the latter part of the program is going to offer positive results, or whether in a few years we will see the trend reversed, is still too early to say. Most institutions are either in the process of implementing these changes or have just begun, and thus not much is known about its effect.

Another new trend in regards to practice is to involve students in service learning opportunities. Service learning has been described as both a philosophy of learning (which focuses on the development of social responsibility, and in the preparation of students as citizens actively involved in democratic practices), and as an instructional method (which focuses on the integration of academic subject matter study with practical experiences that address real community needs) (Anderson, 1998). Even though service learning is not an exclusive philosophy or method of teacher preparation, its use has been growing in this professional preparation field in significant way.

Teacher preparation institutions around the country are adopting service learning as element of their program because it goes beyond the student-teaching or intern-
ship program in that it does not focus only on the student's learning but also in building community by addressing the needs of its members, something that effective teachers do as part of their professional role. In fact, the few studies that have been conducted to date show that in-service learning is associated with gains for pre-service teachers in the development of professional attitudes and values that are key for effective teaching (Root, 1997).

PREPARING TO TEACH IN THE ERA OF TECHNOLOGY: TEACHER PREPARATION AND AN INCREASE FOCUS ON NEW TECHNOLOGIES.

At the same time that teachers are getting ready to teach children with a huge range of abilities, backgrounds, language skills, etc., teachers in the United States are also facing the increase challenge of the presence of technology in children's lives. It is not only that teachers need to know how to use the new technologies in their classrooms, but also that they must know how to teach its use to children. The technology available in most schools of the United States is quite advanced, and children of this generation some times know more about how to use computer programs, the world wide web, or other forms of technology, than do experienced teachers. This knowledge gap has created quite a challenge in the teaching profession, one that institutions of teacher preparation and schools are trying to address immediately. However, the speed of technological development is quite fast, and thus most teachers feel they are lagging behind in their knowledge and skills. Available to teachers in the United States (and the world) are a number of world wide web sites and other on-line resources that are commonly utilized by today's classroom teachers in their efforts to improve in this area (see, for example, Pianfetti, 2001). In addition, teachers are also beginning to use other forms of technology (such as digital cameras) to record children's learning activities in the classroom as a way of documenting their performance. The continuous change and improvement of technology seems to indicate that this trend will continue to be a driving force behind some new curriculum both at the school level, and the teacher preparation institution level.

From thinking of institutions of teacher preparation as separate and different from schools, to thinking about schools as partners with teacher preparation institutions.

In the United States, as was mentioned before, all teacher preparation programs exist at the post-secondary education level, and their requirements and duration are the same or equivalent, regardless of the level the teacher is preparing to teach (elementary or high-school). The institutions of teacher preparation until very recently were only Colleges and Universities that had certified and accredited programs of teacher education. However, one of the newest trends that can be observed in the United States (and also in other countries such as England and Australia) is a move to
involve the schools (elementary and high-schools) in the actual preparation of new teachers more and more, as well as supporting experienced teachers in their continuous growth and professional development. The trend has gone from thinking of schools as the places where the students went for their student-teaching practicum at the end of their program, to thinking about schools and teachers as actual equal partners with Colleges and Universities in the preparation of new generations of teachers. This new trend -supported and encouraged by national initiatives such as Title II mentioned before-can be seen in projects such as school-universities partnerships to develop and teach particular courses and implement particular practica experiences, to very complex partnerships such as the development and implementation of Professional Development Schools, which are increasing in number and significance in a variety of ways in the country. Because many of the characteristics of this model illustrate the trend of involving schools more and more in the preparation of new teachers, and as a result the trend to transform schools and their structure to support teachers in their professional development, the model is described in detail below.

THE CASE OF THE PROFESSIONAL DEVELOPMENT SCHOOLS MODEL.

Professional Development Schools (or PDS) are partnerships between teachers, administrators and university faculty members created in order to improve teaching and learning on the part of their respective students, and also in order to unite in a very real form educational theory and practice.

The professional development school model involves and requires institutional support (Wise, 2000), and it is one of the models that does work to provide opportunities for teachers' professional development from the beginning to the end of their careers (Koehnecke, 2001). The model of professional development schools varies from setting to setting. However, all professional development schools share the common goal of providing professional development experiences for both pre-service and in-service teachers in schools settings (Frankes et al., 1998), and improving education and schools by having high standards (See, for example, Chance, 2000, and Levine & Churins, 1999).

The origin of professional development schools can be found in laboratory schools that for the first part of the twentieth century were common in teacher preparation institutions in the United States (Stallings, et al., 1995). After much criticism about how atypical the experiences of the children in those schools were, and thus the experience of the teachers was, plus a need on the part of teacher preparation institutions to make use of public schools for student-teacher practicum experiences (given the number of students in the programs at that time), the laboratory schools began to slowly disappear. In the 1980s, however, a new call for reform generated the idea of professional development schools. They began per suggestion of the Holmes Group...
and the Carnegie Task Force. These groups, independently, proposed the creation of school-university partnerships (Cobb, 2000). Support immediately followed from the American Federation of Teachers, John Goodlad, and other prominent groups and educators in the country.

There are a number of recurrent themes found in professional development schools despite their diverse focus, goals, and organization. One is the consideration for the need of dual re-structuring; the school will not be transformed unless the university is too. The second is that both teachers in the schools and in the University are of equal value to the partnership and to the process of professional development. In the United States, as in most societies of the world, there has existed the perception that University faculty members are more important or have higher status than school-teachers. In this model, both are of equal importance, and play equal roles, a trend that is slowly appearing in the country. The third theme is that of a common goal: all professional development schools work to re-structure the preparation and induction of teachers into the teaching profession, improve the teachers' workplace, increase the quality of education for students, and offer opportunities for professional development for the teachers and administrators (Darling-Hammond, 1994b). Successful professional development schools have transformed everyone's roles (Metcalf-Turner & Smith, 1998).

The evaluations of professional development schools until now have been very positive:

The children in schools benefit from the experiences of the mentor teachers and the university faculty, as well as the new knowledge and energy that student-teachers bring into the classrooms. For example, in a study that measured the impact of student-teachers' activities in students' learning of math and writing skills, Knight et al. (2000) found that "Elementary students increased achievement in writing and mathematics problem solving after implementation of the interventions devised by teachers in the elementary school and implemented by pre-service teachers within the PDS" (p. 35).

The experienced teachers keep themselves informed of the latest research and theories in teaching because of their connections with the colleges and universities. In addition, their own professional development is supported as they learn to become mentor teachers and faculty members in university-based programs. There are also reports that teachers and administrators in Professional Development Schools have a very positive attitude about the schools and their work (Cobb, 2000; Kostin, 1998; Castleman, 1996). In terms of the effects of PDS on mentor teachers' work, there are only a few pieces of research and all are quite positive (Nilien, 1992; Wimsatt, 1996).

The student-teachers are introduced to the profession in the setting where they will implement their knowledge and skills, and have the support of experienced teachers and theory-based knowledge. Many authors have argued that the professional development schools model has changed the role of student teachers in a dramatic way, as they become partners with teachers and faculty from the beginning steps of
their preparation and socialization into the profession (Kimball, 1999). In fact, a recent study completed by Walling & Lewis (2000) comparing the development of teacher professional identity in pre-service teachers in a PDS and in a different kind of program, found that the former have a more realistic identity, a more systematic and balanced view of the realities of teaching, and a perception of teaching as a 'career' rather than just a 'job'. Many other research studies have shown that PDS interns outperform their non-PDS counterparts (Cobb, 2000; Long & Morrow, 1995; Tusin, 1992; Macy Research Associates, 1996; Hecht et al., 1996, Sandholtz & Dadlez, 2000).

The university / college faculty also benefit from this collaborative model (see Larkin, 2000), as they develop partnerships with practitioners in the field that allow them to be more informed about the daily practices and situations encountered in classrooms, feel supported in their work with student-teachers, and also receive the opportunity of linking theory and practice more naturally and frequently (for a case description, see Lemlech et al., 1994). There are only a few studies in the literature that have examined the impact of Professional Development School on university faculty, and more research is clearly needed in that area.

However, not all reports have been positive. For example, Cambone et al. (1996) reports that in one particular PDS, the mentoring and practicum components were less effective than expected; Long and Morrow (1995) found that there were no significant differences in the National Teacher Examination Scores of PDS and Non-PDS student-teachers. Cobb (2000) also reports that although the PDS model does have a significant effect on teachers' perceptions, beliefs, and practices, as well as on student-teachers' and students' learning, those changes take time, beginning with the need for time required to build trust and relationship between faculty and teachers, which is one of the factors that is crucial for the success of PDSs (Dana et al., 2001). Finally, Sandholtz and Dadlez (2000) report a number of trade-offs that are necessary when using the professional development school model. Among them, the fact that the student-teachers are exposed to a limited number of schools (usually just one during their initial preparation program); that the College supervisor is not necessarily a subject-specialist given that he or she must supervise student-teachers in different disciplines who are placed in the same school; and, finally, that the number of cooperating teachers may be small given that all of them must be members of the same school and a few may not be interested in supervising students.

New developments with regards to professional development schools include the implementation of the model in its traditional form but adding a major emphasis to the use of technology (Burley et al., 2001). This model, labeled ePDS, has been quite successful as it has all the advantages of the regular partnerships and professional development schools, but the added "cyberspace" dimension, which allows even closer and more frequent communication among all the members of the partnership.

In addition to the Professional Development School model, there are other forms
of partnerships between universities and schools. These partnerships are like networks "in that they connect practitioners who share common interests and concerns about education" (Miller, 2001, p. 102) who are in schools and in institutions of higher education.

According to Miller (2001, p. 105), school-university partnerships have four core-tasks:
- To establish firm bases in two distinct cultures, school and university.
- To cross-institutional boundaries in order to respond to needs in the field.
- To ensure inclusive decision-making.
- To create new venues for educator development.

From no support in the first years in the profession to full support: Induction programs.

One of the new trends observed in the on-going professional development of teachers, is a strong support offered to new teachers by experienced teachers in the beginning years of their careers. These induction programs are planned and systematic programs of sustained assistance to beginning teachers. These types of programs have been in place in countries such as Canada, Japan, Germany and New Zealand for a number of years, and have reported very successful results (Holloway, 2001; APEC, 1999). But it is only in the last few years that they have begun to emerge in different states of the United States. In most states where these programs are emerging, it is the school districts or the schools that are in charge of planning and implementing them. Most colleges and universities that prepare teachers are only just beginning to develop this type of programs.

Usually induction programs include activities that orient the newly graduated teacher to the profession, such as study groups and research groups, formal and informal discussions of curricular activities with more experienced teachers, and some kind of support and guidance from an experienced teacher who becomes the mentor. These mentors usually go through a preparation program themselves, and also find the process of mentoring a rewarding and helpful professional development experience.

Summary of trends found in the education of teachers in the United States in the last two decades: Where is the country now and where is it moving to?

This document has described the current state of teachers and teacher professional development in the United States, and has indicated how current practices began to be implemented and supported by policies and initiatives planned and implemented by the federal and state governments, and also by professional organizations of educators and the community of educators in general. The collaboration between these different agents and agencies has been crucial in determining the state of the teaching profession in the country today. This collaboration has not always been presented in the form of agreements; in fact, tensions still exist between the need of the government for the accountability of the teachers and the institutions that prepare and support them, and the current research produced by educators on best practices for
effective learning and teaching that go beyond standardized testing and different forms of assessment. These tensions, however, have generated interest in continuing research, financial support from different agencies to continue to improve education and teaching, and above all, have generated dialogue, an important tool in collaborative efforts. Given the current state of teachers and their profession, these tensions, and their positive outcomes are very likely to continue. The current end result of the efforts of the last 20 years can be summarized in the following categories:

THE PROFESSION

In the past 20 years, teaching has begun to be recognized as a profession and teachers have begun to receive the credit, respect, and recognition of professionals. 'Teacher professional development' has definitely replaced 'teacher training'.

WHO ENTERS THE FIELD

An increase in the strength of the academic preparation of candidates who enter the field is recognized. Teacher candidates must have, as a minimum, a high school diploma, and be strong academically. The existing trend is to require more formal education of teachers, with some States requiring a Masters degree for full licensure. There has also been an increase in the number of college graduates who enter the field at the graduate level; these teacher candidates are knowledgeable in a particular discipline (their undergraduate major), and now need the knowledge and skills of pedagogy and teaching in general.

WHO PREPARES THE PROFESSIONALS

Institutions of higher education, both colleges and universities continue to be the primary institutions responsible for the preparation of teachers. Increasingly schools and experienced teachers are playing a significant role in the preparation of new teachers as well. Teacher educators, thus, are both academics and practitioners who are in constant communication with one another, and who respect the experience and expertise that each bring into the process.

HOW DO TEACHERS GET PREPARED

This is the category with the most change. As professionals, teachers are prepared to become experts in the field of teaching, learning, and the production and use of research in these areas. There is, at the present, a heavy emphasis in the development of
their subject-knowledge; however, teacher preparation programs also strongly require many hours of practicum experiences in actual classrooms, and advanced knowledge and skills that help new teachers respond to a very diverse population of school children. Teachers also need to learn about the new technologies and develop the skills, attitudes and knowledge that will continue to support and encourage their own study and learning, and thus their professional development. Teachers are also prepared to respond to the needs of the communities where they work, and to especially sensitive to issues of social justice. Regardless of level for which the teacher is being prepared to teach, all candidates complete the same number of years of preparation, and the same general kinds of academic and practicum requirements. Currently, there is a climate of testing and assessment that is creating a heavy emphasis on subject matter knowledge.

WHAT ARE THEY EXPECTED TO DO IN THEIR JOBS

The old notion that teachers transmit knowledge is long gone. Teachers are expected to create environments conducive to students' exploring, constructing knowledge, and learning. They are expected to respond to the learning and social needs of their students, to relate and work with the children's families and communities. They are also expected to do research and generate knowledge that contributes to the field, and that help them and others improve their own teaching and learning. They are expected to be actively involved in professional organizations, attending conferences and presenting their own research. And they are expected to help in the education of new teachers. In a nutshell, they are expected to do what professionals do, and to continue with their own professional development and learning.

HOW ARE THEY SUPPORTED

Teachers are supported by a number of individuals (mentor teachers, principals, etc.) and organizations (both public and private). These organizations may be professional associations of teachers and other educators, or may be other agencies that support the work of teachers by offering courses, learning resources, or financial support. Professional development opportunities abound in the country, and teachers have access to information that allows them to select their sources of support. New teachers are also supported in formal induction programs planned by schools, colleges and universities, and/or by school districts. The role of colleagues in the same school, the same district, and the same geographical area is important for teachers' own professional development.
WHERE ARE WE GOING NOW?

In conclusion, the next few years promise to be as active and energetic in planning and implementing change as the last few years have been. More changes are expected following the direction of the current trends: more rigorous programs of teacher preparation, more accountability of teacher preparation institutions and of teachers, and more professional recognition of and opportunities for teachers.

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GUIDELINES FOR FUTURE TEACHER EDUCATION IN THE NEW SOCIETY OF KNOWLEDGE AND INFORMATION

Teacher education must guarantee future professionals a quality development process through which they will acquire specific abilities to work competently while preparing them for:

- Becoming responsibly involved in a particular social and cultural context following a specific set of values.
- Being part of a specific group of professionals.
- Keeping current in the labour market.
- Establishing the limits that apply to every professional endeavour.
- Developing constructive professional self-criticism.

This proposal acknowledges the multidimensional, contextual, ethical, dynamic, and changing nature of every profession and placing continuing education at the very core of professional practice, makes it an important feature.

Viewed from this perspective, professional teaching practice involves:

- Identification, analysis and critical assessment of the social and cultural changes

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that must take place in order to improve society through working with students.

- Reflecting on the role professional educators are called upon to play in student achievement, thus reinforcing the ethical commitment to those they serve, and integrating demands resulting from foreseen changes.

- Responding to new demands placed on the profession by introducing real changes to practices and formulating real responses to the new problems confronting education.

Engaging in self-criticism in order to match action to the objectives of change and to foreseen social and professional improvement.

Such a model of education enables individuals to reformulate their professional theoretical—conceptual, technical—projective, and practical knowledge according to the requirements that scientific, social, cultural, and educational changes demand. All this implies that teachers must reflect on their own practice and attempt to assess the meaning of their activities. They must draw on available knowledge in order to create new knowledge even if, initially, it does not prove all that explicit.

By viewing the profession as a means of identifying problems and formulating possible solutions, the thinking of teachers takes added relevancy and conditions their professional activity in a number of ways. This is why their education should not involve learning formal and ineluctable systems of behaviour. Rather, they should learn how to interpret each situation, and to analyse and make timely decisions responsibly and critically in each case. Reflection and interpretation of practice relies on a constant construction of reality which, in turn, implies a continuous interaction between the experiences and knowledge of teachers and their reality. Thus, endowing teachers with strong theoretical—conceptual notions that go well beyond the realms of psychology and pedagogy is not enough. They must also be given the skills to act purposefully, to interpret and analyse the characteristics of each educational event, and to be able to bring about change. In other words, teachers must also have technical—projective and practical knowledge to properly plan and design actions that must be taken, and the ability to develop these in collaboration with other actors involved in the teaching process. Critical assessment and reflection of their own performance are part of this professional model, without which it could not address the needs and requirements inherent to the context wherein the specific role of teachers unfolds.

Teaching also involves teamwork. From this perspective, teachers must produce joint working plans, an initiative that assumes the ability to make joint decisions, to link the development of individual practices to those of a wider group, and to assess the decisions collectively. As regards education innovation processes, teachers must be prepared to simultaneously and articulately target desired changes they have identified as a team, and evaluate the process. This requires the kind of training that will allow them to view ways of improving their teaching, anticipate their development, and identify their impact on outcomes and on the group of teachers. Ultimately, the idea is to train teachers to develop a culture of participatory management, educational
innovation, and personal relationships, based on reciprocal knowledge and acknowledgement of professional and personal values.

In order to examine in greater depth the bases that should sustain a teacher education proposal thus perceived, we will attempt here to outline the salient features of such a proposal by analysing the requirements resulting from the current changes in society and employment that affect education.

**IMPLICATIONS OF CHANGES IN EDUCATION ON TEACHER TRAINING.**

The purpose of compulsory education is to socialise students, thus helping them to develop the skills required to live in society. This view is derived from a constructivist perspective of the teaching and learning process, which posits the appropriation of cultural knowledge. This appropriation of abstract and highly organised knowledge by students, requires the intervention of someone culturally better-qualified, the teacher, so that through his or her help the knowledge acquired may be highly significant.

Hence, skills are developed by integrating students into contexts where, through the mediation of the teacher, they receive the orientation, guidance, and support that the knowledge construction process requires.

The process of socialising students so that they become part of their cultural and social group should not be perceived as opposed to the process of individualisation, since no socialisation is possible in the absence of personal activity. Likewise, any personal activity involving the construction of knowledge must be understood as a socially and culturally mediated activity. In this view, any appraisal of the causes of student development should take into account the quality of educational interaction, particularly that provided by teachers.

This psychological and pedagogical view of education has helped produce a number of highly significant changes intended to prepare teachers to move from professional practices that are:

- Selective - to others inspired in a comprehensive concept of education and capable of responding to various capacities, interests and motivations.
- Essentially subject-centred - to others that focus on the constructive activity of the student.
- Decontextualised - to others that take into account the context of interpersonal relationships of school and classroom.
- Individualist - to others that are characterised by teamwork.
- Technical - applicative (projects or ideas originating in a decision context outside the school) - to others that are autonomous and reflective - strategic professional practice based on the capacity of making decisions in the field.

The need to ensure the development of the skills young people will need to become integrated into society and participate actively and responsibly as interacting
citizens has led many counties to extend compulsory education to age sixteen.

This proposal to extend compulsory schooling has been accompanied by a comprehensive, non-selective kind of education that allows students to attain the same education objectives, thus preparing them to live in society.

In numerous countries, including Spain, such a proposal has been inextricably bound to the individualisation of teaching. This has developed through a gradual adjustment of education proposals at various levels – making a core of information common to all students and compatible with measures designed to address diversity (organisational, curricular and institutional). These, under certain circumstances, may lead to a breakdown of the general education proposal due to the incorporation of flexible time frames that respond to the various interests, motivations and capabilities of school-age youths.

Education reform in Spain as provided by legislation, has been a global strategy embracing the educational aspirations of all children and youth. Within this framework, an open curricular model has been created to respond to manifold education needs. Its management is the responsibility of teacher teams (who are much closer to students than administrators). These teams have multiple resources at different levels in order to adapt the education proposal and undertake the announced process of individualisation.

In line with current knowledge in psychology and pedagogy, the education reform posits that the personal traits students in terms of capabilities, interests and motivations are not congenital, but are rather the product of social, economic and cultural features that are also different. The attainment of the same education objectives will depend on the variety of measures adapted to the educational needs of students. These are designed by first diversifying the elements that enter into the daily practice of classroom teaching, such as teaching methodology, material, technical and personal resources and, to the extent required by students’ educational needs, by gradually developing more specific measures that broaden the scope of changes. This could lead to changes in the less commonplace - and less essential - organisational, curricular and practical aspects of classroom practice, albeit strictly related to them. That is, it may lead to a modification of the elements comprising the very essence of curricular proposals such as, for example, area structuring, or the placing of priority on specific contents and learning objectives of a particular curricular area.

The proposed Education Quality Act (Ley Orgánica de Calidad de la Educación (LOCE), currently pending approval in Spain, modifies this diversity-targeting proposal based on the adaptation of the education proposal. The proposed law assumes that the existence of different student capabilities, interests and motivations require education administrators to recommend different time tables and to distribute students within them a priori. The measure is not perceived as an adjustment of the task of education, but as a distributive initiative based on student differences which, as has been amply demonstrated and contrary to what the aforementioned Act stipulates,
have a social, economic and cultural origin (UNESCO, World Report on Education 2000).

A number of new proposals contrast the efficacy of education with the goal of social integration based on equal opportunity. In this case, efficacy is understood as the capacity to get the most out of the students, demanding all they can give of themselves which, somehow, has been already determined by their background and previous experiences. In a sense, it is argued that it is useless to ask of a student something he or she will not be capable of giving. Likewise, social integration is seen as the result of applying the principle of equal opportunity. What students may achieve will be largely determined, among other things, by the quality of the educational experiences to which they will be exposed and, given the “proper” help, that is, adapted to their needs, these can contribute to alter their innate capabilities. The relationship between capabilities and education is dialectical and cannot be looked upon as being pre-established and definitive.

We should not lose sight of the fact that education proposals are instruments of social cohesion and equal opportunity, and that they may be threatened by a form of globalisation (a topic we will touch upon in the following sections). For example, in the near future we will witness the proliferation of a teacher education proposals emerging from an open, virtual environment, and that are increasingly less bound to national, social, and cultural problems and increasingly more governed by efficacy principles as defined above.

Favouring efficacy may entail, in the first case, the exclusion and segregation of students who most need help and support, particularly if proposed as opposing social equity and equal opportunity. Secondly, the window of opportunity opened by globalisation in terms of providing access to supra-national education may contribute - if adequate preventive measures are not taken - to a lack of identity and cohesion in various societies. Under these circumstances, if teacher education and training fail to make key issues out of the differential identities of individuals and the social and cultural realities in which they are inserted, we may be faced in the future with heretofore unknown forms of social exclusion.

**IMPLICATIONS OF SOCIAL CHANGES FOR TEACHER EDUCATION.**

If individuals become socialised in contexts of social and cultural practices, variations of said practices will be essential to understand the challenges education faces in terms of specific contexts of education practice, and development and socialisation of younger generations. We will therefore discuss this aspect in the following sections.

Society is in a state of flux, the result of current conditions governing an economy characterised by a strong information base, a global dimension, and network-oriented organisation, and in which none of these factors operates without the support of the
rest. In this new economy, knowledge and information serve as the basis of production and competition, while economic activity responds globally and revolves, in real time, around two systems: that involving the globalisation of interconnected financial markets, and the organisation of the production of goods and services at the global level. In the words of Manuel Castells, this new economy has a strong human foundation. An essential element is having people—particularly innovative people—capable of generating new ideas and applying them, along with a strong technological base and a centralised organisation.

Under these circumstances, societies must tackle a number of new challenges generated at the cross-roads of a double demand. On the one hand, they must play a relevant role in the knowledge society, in globalisation, and in becoming integrated into a network that surpasses the individual's own identity. On the other, they must preserve their condition as a referent of the social and cultural identity of all their members. If we are to understand the scope of the new challenges, we should bear in mind that our current economic activity is—in a very strict sense—considerably less linked to a specific territory, since it operates through decentralised networks within enterprises, and through networks among enterprises and their subsidiary networks. Social participation by the members of a society and their responsible integration into that society increasingly depend on the possibilities of accessing information and mastering technology. Such access and such mastery may not always be available, particularly to the underprivileged.

The future of societies and cultures depends on the answers they give to the double requirement mentioned above—to the formulation of strategic action plans or education plans that, considering the breadth of the foreseen changes and the growing importance of knowledge and information at every level of society and at every age, should go well beyond school or formal education, but not be produced at their fringes.

We will attempt to convey an idea of the magnitude of these new challenges by first carrying out an in-depth analysis of the concept of the space wherein social practices are generated as a result of the influence these challenges exert on their nature and structure. Second, we will develop the approach which these practices require in order to ensure social interaction.

THE SHAPING OF A NEW SPATIAL FRAMEWORK OF SOCIAL PRACTICES.

Perhaps one of society's most significant expressions is the space it generates as material support to the social practices that take place at any one time. According to

1 Manuel Castells' many contributions have provided an insight into this proposal, revealed the existence of two types of spatial logic present in the new society and the problems they may be derived from them.
specialists, some of the essential activities our societies undertake - financial markets, high-level management, multi regional and multinational production of goods and services, and science and technology - function in the space occupied by flows, namely: "following a specific, reproducible, programmable sequence of interchanges or interactions between physically unconnected locations social actors maintain in the political, economic and symbolic structures of society". Flows are "elements of social organisation and expressions of the processes that govern some current social practices and, consequently, the material support of society's prevailing processes is the set of elements that underpin these flows and make their articulation materially and simultaneously possible" (M. Castells: 434). However, this space does not support every domain of the individuals' social interactions, for individuals live in concrete places (neighbourhoods, villages, cities) and their concept of space also casts them as referents. In this case, a "place" is "a locality whose shape, function and meaning are delimited by the frontiers of physical continuity" (M. Castells: 435). Thus, in modern society while people live in these places or locations, the function and power of societies settles in the space occupied by these flows and, as a result, the structural mastery of its logic disrupts everyday living, that is, the sense and meaning of the spaces wherein people currently develop themselves.

If we bear in mind that many human activities are increasingly finding their niches in spaces occupied by these flows, we must acknowledge that the meaning of concrete human experiences keeps moving farther from knowledge, or from social participation, while increasingly refraining from exerting power. Obviously, this contributes to splitting society's communication channels into an interconnected and non-historical space, devoid of a cultural meaning of its own, and of a local, social and culturally meaningful space.

Furthermore, communication among members of a society who participate indistinctly in both social spaces and those who generate their social experience exclusively in the locality, become increasingly complex and difficult. Thus, the codes, social meanings and views they have of society's needs and issues, are increasingly less-shared. If proper action is not taken, this state of affairs may lead to a society of parallel universes coexisting in equally parallel times and dimensions.

The existence of a variety of social experience spaces that modern society has produced does not automatically generate social interaction or education communities. Nor does it safeguard the contribution of such communities to society. In any event, the existence of such spaces does not make a direct contribution to quality social interaction, since this depends on the values the members of a society use to define a sound individual and collective life.

While in the information and globalisation society it is evident that communities must not be excluded from the networks brought about by the information and globalisation era and by the new technologies, their participation in them should be inspired in values that ensure the quality of social interaction.
The new economy, one should remember, responds to very specific market interests - as a rule, rather callous about meeting general public needs - provoked by a fragmented society which finds sharing cultural and historical views extremely difficult. This is why initiatives designed to sustain economic competition must be accompanied by others that, along with guaranteeing a good quality of life and a fair distribution of wealth, give meaning to social and cultural practices, thus generating a vision shared by all members of a society and a culture. Within this new framework of social practice, education emerges as an essential element throughout the life of an individual. This is why education must consider a non-formal supply (education for health, social reintegration, leisure time, etc.), as well as a continuing education supply. In this case, along with school plans and projects, parallel education plans - characteristic of cores or local units - that are socially and culturally meaningful must be developed in order to give meaning to people's lives. These parallel plans prepare individuals, along with schools and throughout life, to deal with problems and to respond to the needs of responsible social collective interaction.

The picture we have sketched with regard to the need to view education as a means of responding to the problems brought about by social change, revolves around the existence of a formal and compulsory education whose mandate is to ensure the development of skills that will be required to live in the society of the new generation.

With this scenario in mind, teacher education proposals should take the following aspects into account:

- Acknowledging the importance and features of the new social practice organisation, in order to determine what skills are necessary to live in the society of flows and localities, and to prepare students to participate in them at different levels.
- Contributing to uphold the social and cultural identity of all those involved, having as a referent the nature and characteristics of the local units responsible for organizing and giving meaning to people's lives. The breadth of the new social practice units should not be reinforced at the expense of losing the individual's social and cultural identity, but should acknowledge and respect those identities being created within this new framework.
- Preventing daily human experiences from becoming detached from knowledge and from social and civic participation, thus guaranteeing communication and exchange among the various levels of society.
- Valuing knowledge and, particularly, creative knowledge, as a means of personal, economic, social, and cultural development.
- Contributing through education to integrate into the circuits created by the information and communication era and by the new technologies the communities responsible for lending meaning to human daily experience. Education must prepare us to participate in a network-like society and to compete economically at that level, using knowledge and the necessary elements and technical resources as tools.
– Taking account of the factors that comprise the idea of a fair and integrated society – one that achieves the harmonious coexistence of distinctly different identities and cultures, sharing whatever good may be found in the society into which they are immersed.

**IMPLICATIONS FOR TEACHER TRAINING OF CHANGES IN THE JOB MARKET.**

As far as teachers are concerned, demand and working conditions are different in the private and public labour markets. In Spain, job markets made up of private schools still absorb part of the yearly production of teachers. However, this is not the case in the public sector, where the hardest hit are primary school teachers. This is partly due to the fact that the school age-population numbers have remained stable ever since the former downward trend was checked by the massive arrival of immigrants, thus stabilising the populations of pre-primary and primary students. Non-formal education absorbs some of the teaching graduates, who consider this an employment opportunity. Many others, particularly teachers, return to studies in search of higher qualifications and trying to make such study and occasional work activities mutually compatible.

On the other hand, school scheduling has changed to reflect the needs of a society increasingly governed by urban customs and by the widespread insertion of women into the labour market. As a result, the demand for school meals and out-of-school activities offered by schools has increased, even though their provision is not always the teacher’s responsibility. Lastly, school schedules may be modified so that their design suits the family’s employment obligations, thus helping to transform schools into units that provide services over and above those associated with formal education, without affecting the work of teachers. Obviously, all of this contributes to define the work of teachers, their areas of specialisation, and the characteristics of their professional and work duties, and to give a new dimension to the educational function of schools.

In terms of secondary school teachers, a shrinking student population and reorganisation undergone by the education system have resulted in a redistribution of the teaching force. Recently, a large number of teachers have been obliged to relocate to new schools, despite having spent long periods of their professional lives in only one institution. Efforts to meet diversity have turned the work of teachers into much more than an individual project, transforming it into a team effort. In this respect, secondary school teachers have had to change not only their work habits, but also their working conditions, that now include a number of hours to allow for co-ordinating activities involving departments and teachers teams. Similarly, secondary schools have developed, among others, tutorial and counselling (academic, personal and labour) plans for students, aimed at meeting the diverse education needs these students may
have. The massive arrival of immigrant adolescent students in recent years has modified working conditions for teachers, prompting the need to rely on colleagues - psychologists, counsellors - which, in turn, has demanded of them additional activities aside from teaching classes.

BASES FOR TEACHER EDUCATION.

It follows then that teacher education should empower educators to:

- Critically reconstruct the role of education in the new society of knowledge and information. Teacher training demands have changed qualitatively compared with past centuries which were characterised by a generalisation of compulsory schooling and enhancement of the quality of education. Increasingly, efforts are being channelled into preparing future teachers so they can help younger generations live in a society where different cultures permanently interact - or, at least, more so than in the past - and where social changes will be the dominant trait, not the exception. The referents of social and cultural identity within an intercultural framework of communication possibilities and equal opportunity (used to justify the selection of a number of contents that became objects of past learning processes) should be preserved, even if part of the new framework of social practices and relationships brought about by the society of knowledge and information.

- Teacher education must include mastery of information resources and social and cultural participation. It must provide teachers with knowledge of how to use information technologies and key tools such as Internet - as well as how to develop social, cognitive and linguistic skills that will allow critical adaptation to change. Training must also provide knowledge of the ethical and moral values that can become the backbone of teacher education, contributing to a fairer distribution of wealth and of equal opportunity for accessing culture, information, health, education, and work.

- Continued education towards the development of a comprehensive compulsory education proposal with common objectives for all students, and aimed at responding to the education needs of each in order to facilitate the development of the skills required to live in society. There is a need for reflective and critical professionals, capable of making education decisions that are sensitive to the characteristics of their environment and to the needs of their students.

- Critical elaboration of theoretical and conceptual, technical - projective, and practical knowledge of the profession. Based on psychological - pedagogical and curricular principles which place the quality of teacher-student interaction at the very centre of the educational proposal. Given the complexity of this proposal, teachers must be trained to work in teams, jointly with groups of
teachers who are part of their school – other tutors and specialists – and with other professionals and social agents with whom they share the responsibility of shaping students and citizens.

The reflective practice of teaching involves developing education proposals which, based on the context of teachers' work, deal with real problems and attempt to solve them as they happen. This proposal does not revolve around a fragmented, subject-oriented-content structure, but rather around the global and interdisciplinary organisation of content that facilitates complex analyses of the problems confronted by teachers.

- Mastery of the new information and communication technologies is particularly useful since it allows teachers to become involved in a context of professional practice and to participate in a broader and more global context than that afforded by the local community. Teacher education based on the new information and communication technologies must take the form of:
  - a user of a language of participation in the new society of knowledge and information
  - a learning vehicle that can provide future teachers with virtual practice contexts, participation in debates and forums and, ultimately, a different student-teacher relationship than that provided by face-to-face encounters in the classroom. Given the right conditions, this different kind of learning will make learning to learn possible and, having the proper knowledge and values, will help students to interpret and assess facts and information.

Nevertheless, teachers must be trained to instil qualitative search and elaboration criteria so that their students may use the information that the new technologies make available in ways that preclude banality, dispersion, and superficiality. In the information society, in building these criteria, teachers will have to differentiate between what is culturally relevant and what is unimportant, opportunistic or, simply, banal. While it is a fact that culture is subject to changes and that knowledge-building is neither linear nor unique, it is possible for teachers to acquire the skills to understand and critically assess the construction of social knowledge model.

- Preparing teachers to master strategic organisation methods. Teacher education also presupposes the mastery of strategic methods of organising activities involving teamwork, by linking teachers to the fulfilment of specific objectives and empowering them to evaluate the results achieved. Such an education process requires preparing teachers to develop a joint education project which lends coherence and unity to the action each teacher develops individually at school and with students. If this project contributes to making the shared education and teaching - learning criteria explicit, to support and guide its development in actual practice and its consequent evaluation, then the different education cycles and stages occurring in a particular school will have the necessary relevance,
coherence and continuity to fulfil education goals. Building a team is like building a system. This is why it is important - despite the fact that, initially, teams may vary greatly - that teacher education respond to not only to its individual dimension, but also to its collective one as well.

The process of educating a team to work as a team must be linked to the development of a joint education project - one that provides the education response best adapted to the needs of students. Such a project must enhance the abilities of teachers to develop and evaluate it as a group; it must help them achieve expected global improvements through the identification of specific changes that need to be made in the tasks each group undertakes. While team education responds to the needs brought about by global change, this does not mean that all of them should go on stream simultaneously. The idea here is for every core or education unit (level, cycles or stages) to visualise what it wants to accomplish and to plan its strategy in co-ordination with the rest. This modus operandi is characteristic of strategic organisations, as opposed to those that are more bureaucratic and hierarchical in nature.

In the presence of the new information and communication technologies and new forms of social organisation, schools will evolve significantly from their current forms of organisation. This is why teacher education must pay close attention to the development of social skills, to optimising group dynamics and management, and to improving personal, material and technical resources. In general, it must pay attention to everything that favours more efficient teamwork and adapting strategic actions to respond to the various needs of students.

Professional practice must be capable of self-criticism and enhancement. Teacher education also involves imparting to educators the ability to reflect theoretically on their work with a view to its improvement. For this, assessment is one of the best strategies.

THE SPANISH MODEL OF TEACHER EDUCATION.

Teacher education in Spain comes under the legal framework of the 1990 legislation that in Spanish is known by the acronym L.O.G.S.E. (Ley Orgánica de Ordenación General del Sistema Educativo) and intended to respond to the social, political, economic and cultural changes of that decade.

Renewal of the structure and organisation of the Spanish Education System and of curricula at various stages of education - Pre-Primary Education (0 – 6), Primary Education (6 – 12); Compulsory Secondary Education (12-16), Compulsory Post-

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2 In recent years, a number of legal documents have been produced (some of them pending approval) that modify curricular (area of the Social Sciences) and organisational aspects of compulsory education (secondary education alternative curricular schedules).
Secondary Education (16-18) and Vocational Training – helped reformulate the nature and functions of teacher education so as to better adjust it to emerging challenges. Specifically, extending compulsory education to age sixteen for all social sectors and the comprehensive nature of compulsory secondary education - which guarantees completion of uniform education objectives (general requirements for that level) for all students - had a strong impact on the formulation of initial and continuing training for compulsory secondary education teachers, since they then had to be trained to respond to the varied abilities, interests, and needs of students entering this level of education.

However, as we shall discuss below, despite the magnitude and scope of the changes made by the 1990 education reform, progress in terms of improving teacher education models and plans has been, as a whole, somewhat less ambitious, particularly in connection with pre-primary and primary school teachers.

In order to analyse the current teacher education proposal in Spain, we have arranged information in two large blocks that include the analysis of initial and continuing education of pre-primary and primary education teachers, and that of secondary teachers, respectively.

The study of initial training proposals uses aspects of the professional degree that grants access to teaching, and the aspects of the base model of the proposal as referents. We do so because we think that the first aspect helps to identify the type of labour and social insertion provided by education, while the second -the study of the education model- has to do with what the educator is expected to know and to do. This analysis is undertaken while keeping in mind that any proposal will necessarily be the offshoot of a certain way of perceiving our context, that is, how one envisions education and the role teachers have in it.

CHARACTERISTICS OF INITIAL TEACHER EDUCATION

Initial teacher education in Spain still essentially follows the reform guidelines established by Villar Palasi’s 1979 education reform. On the one hand, this reform viewed teacher education enhancement as a way of upgrading the level and quality of education imparted to younger students and, to this end, it granted teacher training the status of university-level instruction. On the other hand, the reform endowed all changes affecting teacher education with a marked academic and technological orientation. Currently, teacher education proposals:

- Respond to a permanent demand to improve the quality of teacher education by consolidating, on the one hand, the university status of teacher education and, on the other, the pedagogical nature of the education offered to university graduates - future secondary education teachers - particularly those hired into public service.
- Situate teacher education between general and specialist modalities, giving the latter a distinct technological-projective orientation, as opposed to that pre-
vailing in the past which was characterised by its marked theoretical - academic orientation. Thus, the idea is that in a period of three years, future teachers will have received training that will allow them to become tutors responsible for the education of group - class students and well as being specialists in one or many areas of the curriculum at a specific level (pre - primary or primary). For their part, secondary education teachers, after completing their academic training as university graduates, will have acquired psychological - pedagogical and didactic knowledge that will allow them to teach any student up to the age of sixteen.

Respond to a model of initial teacher training strongly regulated by the decisions of education administrators, as demonstrated by the teacher training study plan currently in force, which includes a large number of compulsory non - selective subjects common to all students schools throughout the country.

THE TRAINING OF PRE-PRIMARY SCHOOL TEACHERS

Under LOGSE, teacher training professional and academic requirements were reformulated, modifying specialities of the teaching degree as well as training objectives and contents.

TEACHER EDUCATION AS A UNIVERSITY DEGREE: STRUCTURE AND CONCEPT OF THE TEACHING DEGREE

Studies leading to a degree in teaching are undertaken either at university or college levels. In Spain, obtaining a degree currently requires a total of 180 credits, where a credit is understood to be a teaching and evaluation unit 10 hours long. The minimum duration of a teacher training course is three years, subdivided in semesters. The yearly workload expected is approximately 60 credits.

Students admitted to degree - programmes are first required to pass the University Entrance Test (PAAU) - unless they hold higher education vocational degrees or any other diploma or degree included within the law. However, in the near future, pursuant to the new Organic Law for Universities (29.10.2001. Art. 42.3), each university will establish its own admission requirements for students wishing to enter, after passing their final high school exam.

Currently, there are a wide range of programmes leading to degrees: Pre-Primary Teacher; Primary Teacher; Foreign Language Teacher; Physical Education Teacher; Music Teacher; Special Education Teacher; and Speech Therapist. Each of them earns an independent and specific degree. Thus, students attending a specific degree - programme and wishing to change to a different one, have to submit a new application for admission. To be accepted, students must have the required academic marks in their specific areas of interest. The college status given to a teaching degree is the result of applying the following criteria:

- Offering a degree that will facilitate the students' prompt insertion into the labour
market in order to meet the existing demand for covering a number of specific education needs. For example, the growing demand to provide schooling to the 0 - 6 age group, although the latter is not a compulsory segment; the need to increase understanding of foreign languages among a population that must respond to diversity, etc.

- Guaranteeing mobility to all university students throughout Spain, by establishing the continuity of studies in any of the country’s universities.
- Allow students’ continuous professional training so that they may pursue further studies, if they wish or must, while remaining active in the labour market as long as possible.

Ultimately, the degree status given to teacher training initiatives, through mid-level subject-based, academic programmes, aims at producing specific professionals. These studies, equivalent to the first university-level cycle, provide students with the academic background required to further studies more or less directly associated with education—provided they pass all the complementary subjects established in each case.

TEACHER TRAINING AS ACADEMIC TRAINING.

Pursuant to LOGSE’s additional clause 2: “the Government of Spain (and, if applicable, the corresponding Autonomous Community) and universities are responsible for approving general guidelines and study plans associated with the teaching degree.”

In order to guarantee student mobility and the acquisition of required professional skills, the General Directorate of Universities under the Ministry of Education and Culture sets common and compulsory bases of the plan of studies that governs the entire country.

The contents of this plan of studies are organised into different types of subject matter, that have been given a variable number of credits, according to their relevance to the training process. These are:

- Non-selective, compulsory subjects required in order to earn a teaching degree in Spain. There are non-selective, compulsory subjects that are common to all seven programmes as well as to programme-specific non-selective subjects.
- Compulsory subjects universities freely choose to include as such in their study plans.
- Selective subjects unique to the programme offered by the university conferring the degree.
- Free-choice credits (10% of the total, as a minimum).

The first three types of subjects essentially guarantee that students acquire the basic skills and abilities required by the profession in a specific education context or reality. Hence, the possibility of deciding upon subjects that are unique to the university conferring the degree. Within this framework, selective subjects contribute to
broaden and examine in greater depth those aspects not sufficiently developed in the
selective subjects of each programme. Elective credits, for their part, aim essentially at
fostering development of individual student skills, motivations and interests. There is
a vast supply of elective credits the universities themselves have developed or which
have been provided by institutions external to the universities and whose training abil-
ity has been acknowledge through the establishment of reciprocal agreements. These
agreements are continually evaluated and may be cancelled at the sole discretion of
the university. While every subject contained in the initial teacher training plan of
study includes practical aspects, the development of technical - projective and practi-
cal knowledge of future teachers concentrates on specific didactic subjects. Addition-
ally, there are the non - selective subjects of the Practicum ( 32 credits out of a total of
180 credits currently needed to earn the degree) that students develop in schools
through shared tutorship between university and practising teachers.

If we view teacher education as a continuum between general and specialised
training initiatives, we can group current specialities into three groups. A first group
includes general specialities that prepare students to tutor groups of students and to
teach the instrumental and essential areas of a specific stage of education. A second
group comprises those that are markedly specialised in nature and prepare students to
teach an area or subject included in the pre - primary or primary school curriculum
(Physical Education, Foreign Languages, Music). A third type is also markedly
specialised in nature although, in this case, the training received empowers future
teachers to elaborate responses to special needs of students who have been integrated
into mainstream schools. Their function, along with those of other school teachers, is
to guarantee that these special students will attain the goals set for pre - primary and
primary education.

In order to examine teacher education in further detail, and considering the
characterisation contributed by the three types of teaching degrees, one must first
identify the contribution of the contents included in the various subjects. Analysis
reveals a triple tendency to guide teacher training along the following axes:

– Social and psychological aspects that will train them to understand the social
  and historical context of education, basic education theories and proposals, and
  the principles and criteria that govern student developmental and learning pro-
  cesses during a specific period of schooling.

– Didactic aspects inherent to areas making up the pre - primary and primary
  curricula:
    instrumentals in nature, lends formality to the experience and learning acquired
    by pre - primary and primary level students (knowledge of language and litera-
    ture, knowledge of mathematics, knowledge of the social and natural environ-
    ment, knowledge of music, visual arts, knowledge of the body and knowledge
    of foreign languages).

– Practical aspects. Allows intervening in the school context taking into account
  its institutional, systemic and dynamic nature. The work done in schools must be
  performed by a closely co-ordinated team - or teams - , in order to ensure the
quality of the proposal, while adapting itself to the needs of students viewed both individually and collectively.

The following tables are a detailed representation of the academic core characteristics of initial teacher training at the pre-primary and primary levels of education. To this end, we have linked each of the degree programmes mentioned above to the block of compulsory subjects common to the entire Spanish territory.

Table 1
Non-selective compulsory subjects in Pre-Primary and Primary Education degree-programmes

<table>
<thead>
<tr>
<th>Common Subjects</th>
<th>Pre-primary Ed.</th>
<th>Primary Ed.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Psychology of education and school age development</td>
<td>Psychology of education and school age development</td>
</tr>
<tr>
<td></td>
<td>Contemporary education theories and institutions</td>
<td>Contemporary education theories and institutions</td>
</tr>
<tr>
<td></td>
<td>General didactics.</td>
<td>General didactics.</td>
</tr>
<tr>
<td></td>
<td>School organisation</td>
<td>School organisation</td>
</tr>
<tr>
<td></td>
<td>Psychological and pedagogical bases of special education.</td>
<td>Psychological and pedagogical bases of special education.</td>
</tr>
<tr>
<td></td>
<td>New technologies applied to education</td>
<td>New technologies applied to education</td>
</tr>
<tr>
<td>Specific teaching methodologies</td>
<td>Knowledge of the natural, social and cultural environment</td>
<td>Ciencias de la Naturaleza y su didáctica</td>
</tr>
<tr>
<td></td>
<td>Development and teaching of musical expression</td>
<td>Ciencias Sociales y su didáctica.</td>
</tr>
<tr>
<td></td>
<td>Development and teaching of visual arts</td>
<td>Educación artística y su didáctica.</td>
</tr>
<tr>
<td></td>
<td>Development and teaching of language skills</td>
<td>Educación física y su didáctica.</td>
</tr>
<tr>
<td></td>
<td>Development and teaching of mathematical reasoning</td>
<td>Idioma extranjero y su didáctica.</td>
</tr>
<tr>
<td></td>
<td>Psychomotor development</td>
<td>Lengua y Literatura y su didáctica.</td>
</tr>
<tr>
<td></td>
<td>Child literature</td>
<td>Matemáticas y su didáctica.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Total créditos: 42 T. cr. / 34,5 Pr. cr.)</td>
</tr>
<tr>
<td>Practicum (32 cr.)</td>
<td>Practicum en E. Infantil</td>
<td>Practicum en E. primaria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Total créditos: 58,5 cr.T. / 36 cr. Pr.)</td>
</tr>
</tbody>
</table>
### Table 2
Non-selective compulsory subjects in Foreign Languages, Physical Education and Music degree-programmes

<table>
<thead>
<tr>
<th>Common Non-selective Subjects</th>
<th>Foreign languages</th>
<th>Physical Ed.</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social - psychological - pedagogical</strong> (32 cr. / T 15 Pr. cr.)</td>
<td>Sociology of education and school age development.</td>
<td>Sociology of education and school age development.</td>
<td>Sociology of education and school age development.</td>
</tr>
<tr>
<td></td>
<td>Contemporary education theories and institutions</td>
<td>Contemporary education theories and institutions</td>
<td>Contemporary education theories and institutions</td>
</tr>
<tr>
<td></td>
<td>School organisation</td>
<td>School organisation</td>
<td>School organisation</td>
</tr>
<tr>
<td></td>
<td>Psychological and pedagogical bases of special education.</td>
<td>Psychological and pedagogical bases of special education.</td>
<td>Psychological and pedagogical bases of special education.</td>
</tr>
<tr>
<td></td>
<td>New technologies applied to education</td>
<td>New technologies applied to education</td>
<td>New technologies applied to education</td>
</tr>
<tr>
<td><strong>Specific teaching methodologies</strong></td>
<td>Knowledge of the natural, social and cultural environment.</td>
<td>Knowledge of the natural, social and cultural environment.</td>
<td>Knowledge of the natural, social and cultural environment.</td>
</tr>
<tr>
<td></td>
<td>Artistic Education and its teaching methodology</td>
<td>Artistic Education and its teaching methodology</td>
<td>Artistic Education and its teaching methodology</td>
</tr>
<tr>
<td></td>
<td>Language and Literature and their teaching methodology.</td>
<td>Language and Literature and their teaching methodology.</td>
<td>Language and Literature and their teaching methodology.</td>
</tr>
<tr>
<td><strong>Specific didactic and non didactic knowledge of the specialty</strong></td>
<td>Foreign Languages and its teaching methodology.</td>
<td>Learning and motor development</td>
<td>Music and its teaching methodology.</td>
</tr>
<tr>
<td></td>
<td>Phonetics</td>
<td>Biological and physiological bases of movement</td>
<td>Musical Instrument Playing</td>
</tr>
<tr>
<td></td>
<td>Morphosyntax and semantics</td>
<td>Physical Education and its teaching methodology</td>
<td>Music groups</td>
</tr>
<tr>
<td></td>
<td>Linguistics applied to the teaching of a foreign language</td>
<td>Theory and practice of body building</td>
<td>Rhythm and Dancing</td>
</tr>
<tr>
<td><strong>Practicum</strong> (32 cr.)</td>
<td>Practicum in F. Languages</td>
<td>Practicum in Physical Ed.</td>
<td>Practicum in Music</td>
</tr>
</tbody>
</table>
### Table 3
Non-selective compulsory subjects in Special Education and Speech Therapy degree - programmes

<table>
<thead>
<tr>
<th>Common Non-selective Subjects</th>
<th>Special Education</th>
<th>Hearing and Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social - psychological</td>
<td>- Sociology of education</td>
<td>- Sociology of education</td>
</tr>
<tr>
<td>(T. 32 cr. / Pr. 15 cr.)</td>
<td>- Psychology of education and school age development</td>
<td>- Psychology of education and school age development</td>
</tr>
<tr>
<td></td>
<td>- Contemporary education theories and institutions</td>
<td>- Contemporary education theories and institutions</td>
</tr>
<tr>
<td></td>
<td>- General didactics.</td>
<td>- General didactics.</td>
</tr>
<tr>
<td></td>
<td>- School organisation</td>
<td>- School organisation</td>
</tr>
<tr>
<td></td>
<td>- Psychological and pedagogical bases of special education</td>
<td>- Psychological and pedagogical bases of special education</td>
</tr>
<tr>
<td></td>
<td>- New technologies applied to education</td>
<td>- New technologies applied to education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific didactics</th>
<th>- Visual arts and music</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Total credits: T. 3 cr. / Pr. 6 cr.)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific didactic and non didactic knowledge of the speciality</th>
<th>- Didactic and organisational aspects of special education</th>
<th>- Learning and motor development</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Developmental and educational aspects of motor disorders</td>
<td>- Language anatomy, physiology and neurology</td>
</tr>
<tr>
<td></td>
<td>- Developmental and educational aspects of sensory disorders</td>
<td>- Developmental aspects of thinking and language</td>
</tr>
<tr>
<td></td>
<td>- Developmental and educational aspects of mental disorders</td>
<td>- Development of linguistic skills</td>
</tr>
<tr>
<td></td>
<td>- Physical Education for special needs students</td>
<td>- Linguistics</td>
</tr>
<tr>
<td></td>
<td>- Behaviour and personality disorders</td>
<td>- Psychopathology of hearing and speech</td>
</tr>
<tr>
<td></td>
<td>- Written Language disorders</td>
<td>- Alternative communication systems. Educational treatment of hearing and language disorders</td>
</tr>
</tbody>
</table>

(Total credits: T. 30 cr. / 22 Pr. cr.) (Total credits: T. 36.5 cr. / 23 Pr. 5 cr.)

| Practicum (32 cr.) | Practicum in Special Ed. | Practicum in Hearing and Speech |
If we compare the total number of credits required to earn a degree with the
total number of compulsory non-selective credits established, we will note that,
despite appearances, degree-programmes offered in Spain:

- Show a strong non-selective character which, to a certain extent, restricts the
  possibility of preparing teachers to practice their profession in a specific context
  characterised by diverse and shifting circumstances.

- Include a large number of subjects in an attempt to maintain the difficult balance
  between general and specialised training. This element is so pervasive that even
  clearly specialised degree-programmes (Foreign Languages, Physical Education
  and Music) include, not general, but specific subjects characteristic of other
  teacher training specialities (for example, music for Physical Education students.
  In the end, the fragmented nature of instruction due to the multiple subjects it
  comprises, renders this kind of training superficial and insufficient.

- Have a distinct discipline-oriented structure (as opposed to interdisciplinary,
  transversal or comprehensive) and an essentially conceptual and technical
  orientation.

- The opportunities for building the Practicum are scarce, given its location at the
  fringes of the study plan and the difficulty this poses in terms of developing
  reflective and critical activity.

Review of these academic plans started during the 1999-2000 period. The
resulting proposal was accepted by the duly-appointed ministerial commission two
years later. The purpose of this revision was, essentially, to produce degree-
programmes more in tune with the common criteria that various European universi-
ties seemed to have reached in matters concerning university-level studies.

In effect, higher education is working towards convergence in Europe. The agree-
ments adopted at the meeting of ministers of education held in Bologna, whereby
degree or diploma-holding Europeans are permitted to freely move about the terri-
tory, will facilitate the practice of their profession and/or further their studies. Within
this framework, the joint elaboration of accreditation standards for higher education
degrees which result in an official recognition of the academic merits of European
citizens anywhere in the territory, has become a task of the highest importance and
priority. Along these lines, a first revision of current studies must be done using quan-
titative criteria in order to differentiate between first cycle studies (some 180 total
credits) and degree-programmes (some 300 credits). A second revision, this time
using qualitative criteria, would serve to guarantee the real academic value of studies
pursued at any university.

The criterion of credit then, becomes most important in terms of this proposal,
since it will be used to appraise the work done by students to pass each of the subjects
contemplated in the Study Plan, and - once and for all - will no longer make reference
to the workload of teachers. Credits will measure the number of hours a student dedi-
cates to a subject. Each credit may represent some 25 hours of work which includes:
attending classes, tutorial follow-ups, hours dedicated to doing homework, preparation of tests or other methods of evaluation, co-ordination of activities, practice activities, recommended reading or compulsory books and the undertaking of academic work associated with a specific subject. The possibility of integrating new technologies as a vehicle for building relationships and communication links between students and teachers, and one that - by guaranteeing student-teacher communications and the work done by students through network-supported and virtual materials - de-emphasises the importance of the presence of the student in the classroom, is another salient feature of this process.

Simultaneously, a large number of officials - deans of various teacher education and training faculties - at universities which currently offer initial training, have united to request that initial teacher training be imparted at the bachelor’s degree level. The underlying criterion is that the new knowledge and information society will demand from teachers both solid basic theoretical training, along with excellent didactic and practical training, delivered in a way such to allow building reflective and critical thinking in a context that relates theory and practice, well beyond the constraints imposed by a subject-oriented curricular structure. In other words, this means much more focus on project development, problem solving, or case studies. Additionally, the idea is to place the personal work of students at the core of the training process, and introduce the use of technologies as an object of learning and as a means for learning how to communicate. These demands must overcome serious economic and labour issues that for the past few decades have been hindering progress among the education administrations of the various governments.

**INITIAL TRAINING FOR SECONDARY SCHOOL TEACHERS**

Organic Law 1/1990, LOGSE, of October 3, requires that all persons teaching at the compulsory secondary education level (ESO), the High School Certificate, and imparting middle and advanced Vocational Training, must have earned a specialised teaching degree. In accordance with the law, this degree is required for membership in the Secondary Teachers Association and the Technical Vocational Training Association, and may constitute an additional merit to teach in the private sector.

For its part, Royal Decree 986/1991, of June 14, adopted the schedule for application of the new education system structure and established that the corresponding education administrations provide teaching programmes that lead to a specialised teaching degree before the 1996-97 school year, and guarantee its beginning during this time.

This Pedagogical Qualification Course (CCUPE) will last a minimum of one academic year, and will include practice periods. Under additional provisions, LOGSE establishes that the Pedagogical Aptitude Certificate - issued by the Science Educa-
tion Institutes (ICE) in 1970, will be valid and equivalent to the specialised teaching degree.

While initial plans considered reviewing the CCUPE study plans during the 1998–99 school year to be implemented during the 1999–2000 school year as a general programme, to date, 10 years after LOGSE, the situation of the various universities is quite dissimilar. Some have already implemented CCUPE experimentally, while others still offer CAP. The latter programme is still more widely used and includes a larger number of students.

**INITIAL TEACHER TRAINING AS A PROFESSIONAL DEGREE: COURSE STRUCTURE AND PHILOSOPHY.**

The Pedagogical Training Certificate (CAP) is awarded at the termination of an education course intended to provide future teachers with the minimum knowledge and aptitudes required for teaching. CAP is structured in cycles, with the first (some 100 hours) covering the social, psychological and pedagogical bases and principles of education, and the teaching aspects of the subjects associated with the speciality areas involved. According to the universities, this cycle includes different kinds of subjects: compulsory common and specialised subjects and elective subjects. The second cycle of teaching practices (some 80 hours) focuses on special teaching and on schools that have the didactic means required for the teaching of several subjects. There are 18 theoretical - practical specialities available.

For its part, CCUPE is a professional specialised teaching degree that integrates psychological, pedagogical and didactic knowledge and the knowledge associated with the various disciplines and modules developed in secondary education. The overall credit load can not be less than 60 credits, nor exceed 75, with each credit being equivalent to 10 hours.

Access to the degree is predicated on successful completion of all secondary education studies contemplated under LOGSE. Pedagogy graduates are exempted. The characteristics of the degree, among others, are the following:

- Awards the title of Secondary Education Teacher in one of the areas of the curriculum in a relatively short period of time – even if increased through CCUPE
- for insertion in a specific and specialised labour sector.
- Has a distinct university component conveyed by the participation of university Education Sciences Institutes in its execution.
- Has a professional and vocational nature, identifiable by the relevant role attributed to its practices and by the fact that these are undertaken by practising teachers acting as tutors.

Ultimately, the initial training course for secondary teachers aims at educating specialised professionals targeted at specific markets, in a brief period of time, and having for tutors professionals that demonstrably favour good practices.
Given the content-oriented instruction that characterises university graduates, the pedagogical qualification course (CAP) has been designed to provide future secondary teachers with the psychological, pedagogical and didactic knowledge they will require to teach a class. This acknowledges that knowing the subject matter does not qualify a person for teaching, as other knowledge associated with the process of teaching how to learn a specific curricular area or academic discipline is required. Psychological, sociological, and pedagogical knowledge are also needed in order to successfully confront the task of helping different students to achieve the education goals of compulsory secondary education.

CAP study plans are divided in two blocks: a theoretical-practical block, and a professional practice or "practicum" block.

Pursuant to LOGSE stipulations and those contained in Royal Decree 1692/1995 of October 20, which regulates the teaching specialisation degree (BOE 268195 of November 9, 1995), and the Order issued on April 26, 1996 which regulates study plans and the provision of the pedagogical qualification course, theoretical-practical teaching consists:

- Non-selective compulsory subjects common to all students and specific subjects characteristic of the chosen speciality.
- The first few subjects (19 to 23 credits) deal with sociological, pedagogical and psychological aspects relevant to secondary education teaching: curriculum design and development, and school organisation; developmental and education psychology; education sociology; attention to diversity.
- The next subjects (16 to 20 credits) cover didactic aspects of the teaching of disciplines, subjects, and modules associated with the specialities of the pedagogical qualification course. General objectives for that area and stage are analysed and criteria formulated to guide students in designing and programming didactic units.
- Optional subjects (5 to 7 credits) aimed at completing instruction on scientific and technical contents of the discipline, subjects and modules associated with the chosen speciality. These may not comprise more than 20% of the total credit load of the theoretical-practical block.

The second block is made up of practical subjects and represents a load of 20 to 25 credits, out of which a significant proportion will be devoted to tutored teaching in secondary schools, and the rest to the preparation, assessment and analysis of the practical activities undertaken. This practical phase should give future teachers an idea of the daily operation of a secondary school as well as facilitate a first contact with teachers at this school level. This perspective also envisions student participation in the teacher co-ordination bodies of the schools involved in the organisation, co-ordination, follow-up and evaluation of teaching activities; observation and record-
ing of teacher activities, and the preparation, development, and evaluation of the teaching process. Experiences acquired as a teacher must be the subject of critical analysis and theoretical reflection in order to contribute to the professional development of future teachers from the perspective of a specific training model, such as, for example, the reflective and critical model.

Collaboration procedures with institutions and enterprises in the productive sector are in place in order to facilitate the organisation and execution of the *practicum* of specialities that are part of the pedagogical qualification course. The incorporation of experienced secondary teachers to collaborate in the delivery of specific compulsory subjects contained in the theoretical - practical block, and in the organisation, coordination and development of the practicum, should be promoted.

Course evaluation takes the form of a Teaching Report (3 credits). This report must contain an account of the activities undertaken during the course, the curricular design of a teaching unit - or several of them -, and thoughts about the school experience. The tutor for the speciality directs this activity.

In synthesis, the CAP course:

- Strongly favours the didactic and practical elements of a speciality as a strategy to prepare the future educator to teach within a specific context.
- Integrates a small number of subjects and credits under each general subject, thus reaffirming its inclination towards speciality areas.
- Has a distinct technical and discipline-oriented structure (as opposed to being interdisciplinary, transversal or global).
- Contains a tutorial training model whose quality guarantees the development of good practices by the tutor. Given the right conditions, practicum initiatives could be promoted. However, we must bear in mind that a good secondary teacher does not, necessarily, make a good teacher trainer, unless instructed in this area.

**BASIC GUIDELINES FOR CONTINUING EDUCATION**

LOGSE's third additional provision stipulates that in order to guarantee the quality that teaching requires, schools will provide the necessary resources to ensure the completion of a number of continuing education activities so that all teachers are capable of carrying out curricular changes and to follow the pedagogical and didactic orientations derived from the application and development of this law. Clearly, this initiative had a strong positive impact, since it prompted the implementation of a number of general plans for continuing education sponsored by the Ministry of Education and Science and of autonomous entities to which had been transferred the responsibility for education skills. Likewise, the budget assigned to continuing education initiatives grew ostensibly during this period, as did the activities related to them.
Teacher Centres were created under the aegis of the Provincial Bureau of Education and Science, to reinforce teacher participation in decision-making regarding continuing education initiatives, and to establish efficient decentralisation whereby teachers' interests and initiatives and the needs of the education system converged in the planning of education.

The inclusion of personal leaves and other activities in the institutional plans for continuing teacher education, helped to guarantee that a number of teachers would have access to education opportunities outside the school.

The different autonomous entities to which education responsibilities were transferred created their own organisational nuclei of continuing education. Thus, for example, in Cataluña, this is channelled through the Subdirección General de Formación Permanente y Recursos Pedagógicos (SGFPRP) and the various programmes and services provided by the Teaching Department. Among them are:

- Scientific and Technological Experimentation Documentation Centres
- Search and Retrieval Information Centre.
- Audio-visual Services
- Health in Schools Programme.
- Language Teaching Service.

The continuing education activities this entity promotes have extended to universities, Pedagogical Reform Movements, Professional Colleges, and teachers' unions. Likewise, in collaboration with various services and entities, a supply of education and teaching materials is being developed in support of continuing teacher education and intended to foster education practice reforms. Pedagogical Resource Centres, Learning Fields, and the Scientific and Technological Experimentation Documentation Centres are also participating.

Autonomous entities have promoted the establishment of Zone Education Plans which materialise the supply of continuing education activities in each territorial unit. These are directed at the teaching force of a specific zone and aim at improving teaching practices and knowledge acquisition. This is one way of responding to the needs and priorities of a zone, and has been intended to provide each teacher with a broad, coherent and institutional training supply suitable to the needs of their schools. The criteria used for organising the supply in each zone is reviewed annually by a commission with the participation of teacher representatives – responsible for studying the numerous suggestions for activities submitted by schools in response to annual consultations.

One of SGFPRP's functions is to organise the systematic detection of information needs keyed to new realities and to the changes that are foreseen in the education system. Another function is the design and application of models for assessing continuing education activities.

Universities also contribute autonomously by broadening the continuing education supply through their Educational Science Institutes, post-graduate and extension courses.
Among the continuing education models implemented in Spain the following focus primarily on:
- Theoretical contents that respond to innovation and change initiatives undertaken by persons other than school teams, due to the need to improve the education system as a whole.
- Practice, but one that responds to change initiatives generated outside the schools and without the participation of school teams. These are not necessarily related to the implementation needs of schools education projects, which are managed by the teachers themselves.
- Change and innovation decisions based on the need for information teacher teams may have. In this case, the education proposal is catalysed by its own demand to attend to the needs of the school teams and in line with the features of their particular context.

The different models co-exist today, as the activities planned respond to a wide range of demands and needs. However, the initiatives advanced by the education administration prevail, since the resulting proposals tend to be flexible.

Finally, teachers hired by the state receive recognition for their continuing education efforts, through promotion to higher professional ranks accompanied by increased remuneration.

**Synthesis of the basic thrust of teacher education in Spain**

The changes to teacher education proposals that have taken place in Spain in the past few years, may be summarised as follows:
- Universities have been consolidated to be the institutions that provide the greatest supply of initial teacher training.
- The need for initial and continuing teacher education is consolidated through various tiers until it reaches university-level teaching. Despite everything, initial teacher education for secondary school teachers must be consolidated in order to become a genuinely vocational activity.
- Initial teacher education has a distinct vocational nature, in the sense that it seeks to facilitate the quick insertion of teachers and of future secondary school teachers. In the latter case, they are accredited to access a very specific and specialised labour sector.
- Different levels of education are still the norm for teachers. Primary school teachers earn the equivalent to a college degree. Secondary school teachers earn the equivalent of a Bachelor’s Degree. However, because of numerous opportunities now available for moving on to higher levels of education, coupled with occasional difficulty in terms of accessing the labour market, the number of teachers holding Bachelor’s degrees is becoming ever larger.
The organisation and structure of teacher education study plans are distinctly compulsory and non-selective, given the strong centralisation of education proposals.

The basic axes of education - theoretical and practical knowledge, general knowledge, specialised knowledge, discipline-oriented knowledge, interdisciplinary or comprehensive knowledge - have yet to be adequately defined. This imbalance is reflected in education proposals that are a sum of curricular decisions that do not foster coherent integration and adversely affect the education model.

Those proposals that favour reflective practical education (which materialises as a non-selective subject of the Practicum of initial training in the orientation of most continuing education proposals) are meeting serious difficulties finding expression in the discipline-oriented structure of the study plan and in the working collaboration between school tutors - Pre-primary and Primary Education Centres (CEIP) and Secondary Education Centres (IES) - and university tutors, and the training each group has been given in terms of individual and group work.

Universities, as the entities responsible for initial education and a large portion of continuing education, are seeking to modify current teaching methodologies. In effect, the credit system, by focusing on the individual work of students, necessarily entails a change in methodology that could consist of, for example, making greater use of information and communication technologies, thus guaranteeing teacher-student communication and completion of academic work. This strategy would ensure that students would be tutored and guided outside of their presence in the classroom. This is likely to involve a complete redefinition of teaching plans, evaluation methods, and, in general, a redefinition of the work of teachers.

THE RELEVANCE OF THE SPANISH MODEL TO GUIDELINES FOR FUTURE TEACHER EDUCATION

In terms of initial teacher training, the European situation opens new windows of opportunity by locating learning and the student activities at the very core of the teachers' action methodology and changing the role of initial education teachers.

Universities make available distance education opportunities which do not require the physical presence of students in the classroom, and contribute to familiarise them with new Internet-supported programmes. This option multiplies and diversifies the education proposal. However, despite the fact that distance education demands are numerous and that enrolment numbers are increasingly higher, the number of students who actually complete their studies is substantially lower.

As regards continuing education, the 1990 Reform was a very important at-
tempt at renewing the scientific and curricular knowledge of teachers and their teaching and evaluation methodologies. The constructivist concept of the teaching-learning process was the psychological-pedagogical referent used in the implementation and development of continuing education processes and contents.

Noteworthy among the numerous continuing education proposals promoted by this reform are those that adopted school teacher teams as the unit of education responsible for the elaboration and management of pre-primary, primary, and secondary education curricula in their respective schools. Also worth noting is the decentralised nature of the management proposals that developed continuing education schemes based on the elaboration of projects produced by school teams and with the support of experts. In the latter case, on-line education proposals were generated which, along with increasing the education supply, contributed to the development of education proposals that brought together students and teachers geographically apart. In other words, these are projects that crossed school frontiers, giving rise to veritable communities of teaching practice.

In any case, during this period, much more than previously, education administrations of the various autonomous units which were transferred the new responsibilities, acknowledged the value and the need for continuing education, and made available an on-going supply.

Education proposals aimed at intervening in the formal education sector were joined by others originating in the non-formal sector. These latter target teachers as citizens; as working individuals - since many of them change teaching for other activities - and as professionals, thanks to the new technologies and the possibility of establishing teaching communities and teaching-learning groups.

Finally, although the proposed initiatives are numerous and different, and the education models manifold, the real challenge confronted by initial and continuing teacher education is that of training teachers so that their practice is based on relevant teaching-learning models.

Teacher education faces many different and diverse challenges. We should not forget that this profession is still unique, in that it maintains and disseminates a number of ethical values different from those that other professions convey; that is, it is more focused on achieving values than on the market and financial gain.
Teacher training in France
University Institutions of teacher training.
IUFM

Georges Soussan*

The educational system should evolve through the implementation of all the prerequisites entailed by success, adaptation, integration and a results-oriented school. Innovations and reforms in classroom instruction are channeled through teachers. Therefore, teacher training is a prerequisite in the achievement of these objectives.

The issue of teachers education and of other education staffs is a priority. Teacher education is at the core of the educational system and is aimed at ensuring that teachers will be empowered to implement the necessary fundamental changes.

For a long time (and in some cases until today), a good academic background was considered sufficient to become a teacher while pedagogical education was not deemed essential. However, a reverse approach regards solid pedagogical training as sufficient and specific academic levels as secondary. For a long time, teacher training in colleges and high schools was generally centered on a specific subject matter while in teacher training colleges the focus was on psychopedagogy.

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This duality in regard to these two extreme models leads certain teachers to view some of their students as having either a “full head” or a “good head”.

Why should education be approached differently?

The purpose of the school system has shifted from a cultural axis to a practical one since the actual mission of the educational system is to enable young people to enter in a social division of work. The objective of schooling is vocational integration. Knowledge has a meaning only when linked to that future integration. Knowledge is considered through an aim-oriented logic. Therefore, we are witnessing a broadening of education’s functions that obviously requires a professionalization which comprises the mastering of the contents to be taught as well as the ability to manage those contents and to widen the scope of one's action in the educational and social contexts. The teacher becomes an expert in the construction and acquisition of knowledge. He should be professional and knowledgeable at the same time.

The teacher is the agent through whom school grasps the reality of students and adapts to their diversity. Likewise, it is through the teacher that students are able to overcome their personal difficulties and to acquire the knowledge offered by school. Teaching is an “occupation” that requires training. The possession of knowledge is essential but nonetheless insufficient since other more vocational learnings are required.

A trained teacher is one who, through his/her practices, is capable to summon up the necessary means and skills in order to attain specific objectives in a given situation. The training of teachers involves working on knowledge and practices at multiple levels while determining the point of junction of such knowledge and practices.

The objective of training is to allow future teachers to acquire a solid university education as well as skills that are concretely related to the activities to be undertaken. Considering that research in didactic and education sciences enrich our knowledge of these fields, we must emphasize the importance of the link between research and training since it enables the development and implementation of new teaching methods.

The educational system is an open one (in the thermodynamic sense), it is subjected to external influences and it is constantly evolving. The success of its progress depends on the ability to tackle specific problems and on the new knowledge produced by research.

In France, the renovation of teacher education in primary and secondary education was launched with the formation of the University Institutes of Teacher Education (IUFM).

We will first present in this document the methods that are applied in teacher education in primary education (schools) and then in secondary education.

We will analyze some of the critical aspects of these educational methods.
THE IUFM

GENERAL OBSERVATIONS

The IUFM were created in the framework of the Law on Orientation in Education of July 10, 1989, which mission was the initial education of all the primary school teachers and secondary education teachers (colleges and high schools).

- Soon after the opening of three experimental IUFM in September 1990, the system was extended to all academies, in total thirty one IUFM which replaced the previous structure (annex "Table I). 
- After their high school diploma +2, teachers were recruited and trained in two years by Teacher Colleges.
- Universities were in charge of preparing students for the admission examinations for the secondary education cycle (C.A.P.E.S', "Aggregations" and for some the "Capet").
- The CPR (Regional Pedagogical Centers) were responsible for the vocational training of those admitted to the competitive examinations for secondary school teachers.

In the framework of a unified recruitment system (high school diploma +3) and training (one year of preparation for the entrance examination followed by a one-year teaching practice) the IUFM were then made responsible for the whole of Teacher Education with the exception of the preparation for the recruitment contest for high schools and universities teaching staffs which remained under the responsibility of universities and Teachers Colleges (ENS) (annex, chart 2).

MISSIONS OF THE IUFM

The initial mission of the IUFM is the education of all teachers. During the first year the IUFM conducts the preparation to the school teachers recruitment contest and, in collaboration with universities, prepares future teachers for the various competitive examinations for secondary education (colleges and high schools in the different subject matters that are taught). The second year, the IUFM takes charge of the trainees in primary and secondary education.

The IUFM is also in charge of implementing the inservice training of the teaching staffs in the primary cycle (schools) and in secondary education (colleges and high schools).

1 C.A.P.E.S: Post graduate teaching certificate
2 Aggregations: competitive examination for the teaching staffs of high schools and universities.
3 Capet: Teacher certification for Technical Education
In accordance to its university status, the IUFM mission is to promote research activities in education sciences and in the didactic of subject matter teaching. The implementation of these research activities can be realized through a collective work of teachers-investigators teams and teachers of the primary and secondary education.

ORGANIZATION AND STRUCTURE

The IUFM are run by a director general and managed by a Board of Directors assisted by a scientific and pedagogical council (CSP). The Board of Directors establishes the general policy of the organization, focusing mainly on the educational orientations and manages the general organization of studies. The CSP is where the processes of reflection and proposals in matters of scientific and pedagogical methods are defined.

A IUFM gather in the Academy several training centers (the former Teachers Colleges) and various associated universities. To illustrate this by an example, we reproduce in annex the organization of the Versailles IUFM (chart 3).

The two years of training aimed at future school teachers are offered in different centers throughout the Academy.

The universities associated to the IUFM provide the required preparation for the competitive examinations directed to teacher training for secondary education.

The candidates who pass the examinations then go to a training center for their second year.

The Associate Directors are responsible for the implementation of the education planning.

The training centers are under the pedagogical responsibility of the directors of the center.

THE TRAINERS

The trainers are researchers-university professors, secondary school and primary school teachers nominated by the IUFM. Inspectors, pedagogical counselors, teachers of greeting classes and field teachers also participate as trainers.

THE TRAINING PLAN

The training plan aims at an individualization of trainings so that students and trainees may increasingly participate as actors and authors in their own training.

The definition of the training plan for primary and secondary school teachers is based on elements of vocational education, cross-trainings, trainings in subject matters,
practices, reports and vocational dissertations. These trainings are conceived for a two-year period. The specificity of each training plan translates into the contents of its different components:

- The training in subject matters is the principal training for the preparation to the first year examinations. Complementary teaching units in subject matters are proposed during the second year.
- Cross-trainings initiate the vocational training by relating to training situations, relations with students and situations within the educational system.
- The practices are integrated in the training process. The training plan envisions several categories of practices:
  - Observation practices in classroom situations
  - Practices involving real-life situations
  - Accountability practices involving real-life professional situations
  - The vocational dissertations and the admission test based on student record constitute the third element of the training.

THE TRAINING OF SCHOOL TEACHERS

The school teacher is a polyvalent master who is capable of teaching all the subject matters taught in primary school.

The training is based on instructions and primary school programs as well as on the vocational skills that should be acquired by the future school teacher in the course of his training. These skills will be reinforced and complemented in the practice of his profession and will be developed by on-the-job training.

These skills are organized in four fields:

- The subject matters taught in primary school
- Training situations
- Managing classroom situations and taking into account the diversity of the students
- The exercise of educational accountability

The duration of the training is of two years. Admission for the first year at the IUFM is based on the presentation of a student record and the candidates should have a high school diploma + 3 or a recognized equivalence.

FIRST YEAR TRAINING

The objective of the first year is the preparation to written and oral test of the recruitment examination. It is also the beginning of the vocational training. (annex, chart 4: organization training 1st year)
**TRAINING IN SUBJECT MATTERS**

The preparation is focused on the training in subject matters that will be the object of a test in the competitive examination. It comprises the scientific and didactic aspects proper to each subject matter: French, mathematics, physical education and sports, history-geography, experimental sciences and technology, visual arts, music education and modern languages.

**VOCATIONAL TRAINING**

This training, called “transversal” or cross-training, is linked to the institution and to the targeted populations and is in-keeping with the perspective of vocational training and with the preparation to the recruitment competitive examination.

This training is focused on:

- The preparation and execution of supervised training practices.
- The knowledge of the institution, its environment and the publics that compose it.

The objectives of the vocational training are focused on developing the following aptitudes:

- To understand, analyze and synthesize a document.
- To link one’s own skills and observations to the field of education (psychological and sociological approaches to the learning processes).
- To describe and analyze practices and pedagogical tools, to reflect on the focuses and the didactic of teaching and training.
- To express oneself and communicate.
- To master the utilization of information and communication in vocational practice.

**PRACTICES**

In the course of the first IUFM year, a supervised classroom practice is proposed to the students under the responsibility and in presence of the Classroom Titular Master. These practices are aimed at allowing the students to acquire a practical knowledge of the teaching functions of the first cycle and to develop and complement the theoretical training. These practices are a first approach to the abilities that are required from the primary education teacher: implementation of learning situations, linking the pupils to the training in subject matter and preparing them to the didactic aspects of the competitive examination.

In conjunction with the training modules, these practices contribute to the preparation to the competitive examination and to the vocational training.
COMPETITIVE EXAMINATIONS

The validation of the first year is the result obtained in the examination at the end of the first year. The winners of the competitive examination are assigned as in-practice teachers in the second IUFM year (annex chart 4, structure of the examination).

The contest includes written and oral examinations. The admission tests are written examinations in French and mathematics. Each test is divided in two sections: one part deals with the subject matter and in the second part the student is asked to analyze and criticize pedagogical documents related to the teaching and training processes in primary school.

Only those candidates who have passed the written examination are authorized to take the oral tests:
- The pre-vocational interview includes a talk that deals with the study of a document provided by the board of examiners and followed by a conversation that should allow to verify the ability of the candidate to position himself with relation to the school teacher profession.
- The oral test focusing on science and technologies or on history and geography.
- Other tests such as physical education and sports, foreign languages, arts or music, in accordance to the candidate’s choice.

TRAINING OF SCHOOL TEACHERS: THE SECOND YEAR

The number of places is determined by the ministry and candidates who are admitted to the examination enter the second IUFM year in the quality of trainee-teacher.

Vocational training is based on the principle of alternation and takes place simultaneously in an IUFM education center and in schools. Vocational training is organized around teaching practices.

Teaching is integrated in a training plan which associates initial training and continuing education and which processes include all the technologies in the field of information and communication. (annex chart 6 organization training 2nd year)

ELEMENTS OF TRAINING

There are five fields of training corresponding to the fields of competencies:
- The skills related to the polyvalence involved in the teaching of subject matters by school teachers.
- Knowledge of the institution and of the publics.
- Mastering of the tools.
- Analysis and vocational practices.
- Vocational dissertation.
Teaching Practices

Two types of teaching practices are organized:

- A supervised practice of four weeks that starts with observation and gradually leads the trainee to take on the class under the control of the teacher who receives the trainee.
- An accountability practice of about nine weeks. This practice can be carried out in classes of different levels. Each period of the practice is preceded by a preparation stage and followed by a phase of execution and analysis of the vocational practices. These teaching practices are framed by master teachers.

Vocational Dissertation

The vocational dissertation is a fundamental element of the personalization of training. Each trainee teacher has a dissertation director who is either a IUFM teacher or a professor of teacher education schools who helps him/her in the selection of the subject and in the conduct of the research. The dissertation is a personal written production which associates a pedagogical approach to theoretical insight that is upgraded by the experience of direct work with students.

Assessment of the Training

The assessment of training consists of two stages:

- The validation of the year of training
- The certification

The validation of the year of training focuses on the assessment of:

- The teaching modules
- The evaluation of the accountability practice
- The defense of the vocational dissertation followed by a *viva voce* with the board of examiners.

At the end of the vocational training year, the board of examiners, chaired by the director of the IUFM, pronounces itself on the validation according to the elements in the trainee’s record.

The admission of the trainee-teacher is of the competency of the academic board chaired by the rector. When the examination of the validation record is complete the board decides on the list of proposed trainees to be appointed to the body of school teachers. The students who were not selected are either authorized to repeat their practice or removed.
TEACHER TRAINING IN COLLEGES AND HIGH SCHOOLS

What most characterizes education in the secondary cycle is the specialization of the teacher in the subject matter to be taught rather than the diversity of the subject matters.

The mission of the teacher is:
- To contribute to the functioning and to the evolution of the educational system
- To exert his/her accountability in the classroom
- To master the subject matters to be taught
- To master the fundamental notions and to be able to implement specific processes
- To be able to create teaching and training situations

In order to take on the mission he/she is entrusted with, the teacher should have achieved training and acquired skills that are connected to the different aspects of his/her mission. Full acquisition of knowledge is linked to duration hence initial training should be extended by continuing training with view to allow the updating of skills and to establish a permanent process of reflection on one’s vocational practices.

FIRST YEAR TRAINING

Graduate students (high school diploma +3) can register in the first year at IUFM. The organization of the first year is focused mainly on the preparation of the written and oral examinations of the CAPES contest.

The training plan comprises three parts:
- Training in subject matters as the main axis
- Cross-training
- Observation phase in an educational institution

TEACHING SUBJECT MATTERS

Teaching in subject matter is taught at university under its pedagogical responsibility.

VOCATIONAL TRAINING

Vocational training is carried out at IUFM. It is a “transversal training” that deals with the structure and functioning of the educational system and prepares to the admission test based on student record. It comprises didactic elements on subject matters and analysis of classroom situations observed during practice.
**Observation Practice**

The observation practice in college or high school is an integral part of the training. It provides the student with the opportunity to familiarize him/herself with teaching in the classroom.

**Competitive Examination**

At the end of the first year the student takes the written tests of the competitive examination focused on the subject matter contents. The admissible students take the oral tests focused on subject matter contents and vocational aspects. At the end of the examination, students who passed the tests are registered for the second year of training as trainee teachers.

**Second Year Training**

During the second year priority is given to the prerequisites of vocational training. This preparation is built around three components that contribute with their specialized fields to the professionalization of:

- The practices
- Modules of teaching theory
- Writing the vocational dissertation

**Practices**

Two types of practices are organized: a supervised practice and a accountability practice. The supervised practice includes a time for observation in the classroom of the pedagogical adviser and then, gradually, the trainee takes charge in front of the pupils but without assuming full responsibility. The evaluation is carried out by the pedagogical advisor and is based on the ability to analyze processes and to generate suggestions and implement solutions. The practice allows the trainee to gradually actualize his/her competencies and to integrate an educational team. The trainee teacher exercises a responsibility by undertaking the teaching, as well as the pedagogical, educational or administrative activities for one or two classes. This practice is carried out in tight linkage to the training provided at the training center. The classroom duties involve the preparation, realization and assessment of the teaching sequence. The pedagogical advisor supports the trainee teacher by helping and advising him/her in the undertaking of the class.
The assessment of the training period is entrusted to the pedagogical advisors and to the IUFM teacher trainers. The follow up of the practice should primarily allow to assess the ability to organize the planning of a pedagogical action as well as to devise, conduct and assess training situations.

THE TEACHINGS IN TRAINING CENTERS

The contents are focused on:
- Training on programs and Instructions
- The deepening of the subject matter knowledge
- Didactic of subject matters
- Assessment training

THE VOCATIONAL DISSERTATION

The vocational dissertation is a personal written production which links a theoretical approach of pedagogical issues to a field practice with students. Insofar as the requirements of critical distance, documentary back up and of training in extensive document writing are concerned, the dissertation represents the attainment of a reflective endeavor developed through the training. The vocational dissertation is a work of analysis and formalization applied to issues relating to the vocational activity of the trainee teacher. The defense of the dissertation consists in having a viva voce with the board of examiners.

ASSESSMENT AND VALIDATION OF THE SECOND YEAR

The validation of the year is different from the teacher certification. The validation board has access to the performance assessment report of the trainee. This report contains all the documents and performance assessments for each of the fields of study: the accountability and the supervised practices, the vocational dissertation, the teachings. The commission then examines the trainee’s record, assesses his overall performance and determines if the year of practice is validated or not.

ADMISSION PROCESS

The results of the performance assessments are submitted to an academic board which establishes the list of admitted trainees. The rector pronounces the admission of the trainee or the renewal or extension of the practice.
CRITICAL ANALYSIS OF THE IUFM

In the system that preceded the IUFM, the education of teachers was carried out in different structures that were independent from each other (university, ENI, CPR...). After an admission examination, the master would integrate the teacher training institutions with a high school diploma + 2. The future teachers of colleges and high schools would follow the preparation to the examinations (CAPES or recruitment examinations) at university and their professional follow-up would take place in the framework of the CPR while they assumed the responsibility of one or more classes.

With the establishment of the IUFM, fundamental innovations were implemented:
- By extending their studies (integration at high school diploma + 3) and becoming school teachers, the school masters improve their professional status.
- The grouping of all the categories of trainings under one university structure, the IUFM, allows the implementation of a unified system.

The other fundamental innovation is the introduction of professional education in the different levels of the curriculum. The first year, awareness units focused on the teaching profession have been introduced in the course of study at university and, in the second year, units of preservice preparation as well as training in subject matters have been added.

Throughout the preparation for examinations during the first IUFM year, the teachings are focused on training in subject matters and on vocational training, with focus on the integration of knowledge and with view to allow future teachers to shift from learning to teaching. This requires a critical outlook on the effectiveness of the learning situations implemented in the classroom.

But the system has to evolve, improvements and solutions to the still pending problems should be devised and implemented.

After ten years of operation, the IUFM have been evaluated by the national assessment committee (CNE)4. We will underline, hereafter, some elements of the assessment report built around three issues: the institution, the training and the university character of the institution.

The first positive statement consists in the opinion of the constituted bodies (school directors, inspectors...) stating that the younger teachers are better prepared than before to their teaching carriers. However, some relatively justified critics blame the IUFM for permitting too much of a "unique pedagogical thought" and an exaggerated "priorization of the education sciences" at the disadvantage of the subject matter knowledge.

No pedagogical theory emanating from a school of thought can be neutral and opting for one instead of another is a matter of ideological and social preference. Whether it concerns training or research, opting for a single model is unacceptable.

4 CNE: Comité national d’évaluation
The future teacher will have to build his/her own pedagogic and didactic “model” by basing it on the ensemble of data and outcomes from the educational situations that give a meaning to his/her action but that will eventually have to be developed.

However, it is equally true that the balance between education in subject matters, academic competencies and professional knowledge must be ensured. The mastering of subject matters is as essential as the pedagogical and didactic competencies required by the engineering of training situations linked to the social, economic, and cultural schooling situations of the targeted publics.

The personality of the future teacher also plays an important role in the “quality” of his teaching. Personality is a cluster of factors which characterize an individual such as his traits of character, his ability to react to events, his type of comportment, his presence, his interaction with his pupils, his ability to understand the school environment and the communication skills that facilitate team work.

As underlined in the report, what lacks in the education of the future teachers is “a strong statement on the teaching profession”. The sense of accountability, as part of a teacher’s role with regard to the missions of school in our society, can grant meaning to his/her training, shed light on his undertakings, strengthen the motivation, generate love for his profession. The idiosyncrasy of teaching obligates future teachers to be motivated and fully committed to their profession.

The IUFM sees itself as a unified training system for all teachers, of the primary and secondary cycles, while ensuring coherence between the theoretical vocational teachings and the practice-oriented ones.

In spite of intentions, the inherited barriers between the first and second levels still exist and are having a slow-down effect on the cohesion of the institution.

Likewise, the field educators should be more closely associated to the teaching process and are too little involved in the structures of the IUFM. The field educators, particularly the teacher educators and pedagogical advisors should be considered as full partners in the educational process in order to reduce the distance that trainee teachers perceive between the IUFM educators and the field educators.

Alternation should not be conceived like a there-and-back movement between the classroom where the practice takes place and the teaching room but rather between the teaching institution and the IUFM. The teaching institution is where the teacher in training should discover the different dimensions of the profession and the relations between the school and its environment, particularly the sociocultural background of the pupils and learn to take part in a collective project.

Opting for a strongly centralized organization has been a necessary element in the formation of an institution on the basis of preceding structures. However, it can become an obstacle if all the parties involved do not feel satisfactorily associated in it.

The partnership between the IUFM and the universities is still in the making. The strengthening of the links between the IUFM and the universities is a necessity. In fact, university is the place where knowledge is constructed and it is open to the
external national and international environments. But there is a risk of stagnation if, with the passing of time, the IUFM becomes a closed structure.

The necessary links are generated by the a shared education of the students, the researchers educators who take part in the IUFM and by the Research conducted in both institutions. Research in didactic which is a recent discipline, still in the making, should be able to find its place in the polity and the activity of universities (the carrier and recognition issues concerning the researchers educators).

There are too few researcher educators in the IUFM to allow a credible development in the field of research. The contribution of Research, let us remind it, is a deciding factor in the evolution of the system. The activity of research in education not only embraces the education sciences but also the didactic of subject matters and the psychological, sociological and linguistic approaches to teaching. It would be quite beneficial to enable the coordination, assessment and promotion of these researches.

CONTINUING EDUCATION

The comprehensive mastering of the profession bears a complexity that is difficult to manage in its entirety in the initial training. Throughout his professional life the teacher will be able to identify and analyze the obstacles encountered in his pedagogical practices and frame the issues that will produce training needs.

In France, since 1998, continuing education is under the authority of the IUFM which enables and finances the actions proposed by outside institutions. The continuing education of practicing schoolteachers is organized by the training centers of the IUMF.

The continuing education of college and high school teachers is carried out by universities through teacher training services. Different types of actions are proposed such as the upgrading and updating of academic knowledge and the adaptation to new curriculum, education in the didactic of subject matters, preparation to the internal examinations and trainings leading to graduation. Every year, a plan of training actions is published for each IUFM proposing a wide variety of practices for the teachers to choose from. Some actions can be compulsory in the context of a plan of overall policy of renovation.

TRAINING-RESEARCH

We account for the actions that we have developed at the Paris Sud Orsay University before the Teacher Training Service and the Laboratory of Research in Didactic of Experimental Sciences.

The goal in this type of action where training and research are linked is to promote the participation of the teachers to research actions in the framework of continuing
education. It is about an action of training by research. The researchers of the university laboratory, the researcher educators and the secondary education teachers seconded to university are monitors and trainers in these actions.

The fundamental option is the dual relation between training and research:
- The validated outcomes of the research are invested in trainings
- Applied research is a means of teaching

In the course of these trainings the educators:
- Acquire the academic content knowledge that they need in order to master their teaching
- Define the training goals, construct their classroom sequences, conceive didactic tools and elaborate didactic practices to be implemented
- Experiment in their classes the elaborated didactic, analyze the experimentation data, the processes applied by the pupils ... 
- Overcome the obstacles that arise from a process of change
- Assess their teaching and training. Each teacher appropriates the training corresponding to his own problematic.

The activity of the group lasts throughout the school year. The results of the group work are reinvested in other continuing education actions. Hence, the teachers in training participate in the research work of a didactic adapted to their teaching and they acquire the skills needed for the study of the problems faced in the elaboration of pedagogical projects. They are prepared to act as monitors for their colleagues within disciplinary and interdisciplinary teams and they can contribute in an effective manner to the evolution and renovation of the educational system.

Note: In the frame of action of UNESCO, Regional Office of Education for Latin America and the Caribbean, we have conducted actions of this type in Uruguay, Bolivia and Venezuela (ref. 1 to 6).

CONCLUSION

In synthesis, we underline the main points in the teacher training processes.

The initial training should be extended by continuing education. Research and training should be linked in order to enable the evolution of the educational system. The initial training and continuing education are two different stages of the same education system that integrates research. Such a system involves the creation of an interphase of joint work among researchers, trainers and teachers, in academies, education and research institutions. Initial and continuing education should be able to embrace the new knowledge in the educational, academic, didactic, pedagogical and technological practices. The teaching of vocational competencies and particularly the didactic linked to subject matters should be approached gradually from the beginning of the university course of study and developed during initial training.
The mastering of academic knowledge is fundamental. The theory and the professional practice should constitute an integrated whole rather than a divided ensemble. The trainers in the training centers and the field monitors should form coherent rather than contrasting teams but this does not exclude the diversity of practices. In order to enable the renovation of the educational system and to better meet the educational needs, the system should remain open and in constant evolution.

This document has been produced on the basis of official documents of the Ministry of National Education and of the documentation published by the IUFM of Versailles, Dijon and Lyon. For exhaustive and detailed information please consult www.iufm.fr. This website allows access to all the IUFM sites and is available in 3 languages: French, English and Spanish.

BIBLIOGRAPHY

Table 1

UNIVERSITY

1st year
DEUG
2nd year

University Degree

preparation to
CAPES

MASTER'S
DEGREE

Preparation to
competitive examination for
recruitment

ACADEMY

1st year
ENI
2nd year

CPR

CPR

E = Examination
CPR = Regional Pedagogical Center
ENI = Teacher Training School
CAPES = Post Graduate Teaching Certificate
Table 2

UNIVERSITY

1st year DEUG
2nd year

Units of familiarization to the teaching professions

University Degree

Units of pre-vocational approach of the teaching professions

ACADEMY

IUFM

School Teachers

1st year 2nd year

Teachers of colleges and high school

1st year preparation to CAPES

2nd Year vocational training

MASTER'S DEGREE

Preparation to competitive examination for recruitment

E = Competitive Examination
CAPES = Post graduate teaching certificate for secondary education
Table 3
Organigrama del IUFM de la Academia de Versailles

<table>
<thead>
<tr>
<th>Board of directors</th>
<th>Director</th>
<th>Council of Science and Pedagogy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman:</td>
<td>Accounting agent</td>
<td></td>
</tr>
<tr>
<td>Rector of the Versailles Academy</td>
<td>Secretary General</td>
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<table>
<thead>
<tr>
<th>Training Centers</th>
<th>Directions</th>
<th>Encargado de estudios</th>
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<td>Formación para la educación primaria</td>
<td></td>
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<td>Antony-Jouhaux</td>
<td>Training 1º level &amp; 1º degree four year contract</td>
<td>AD</td>
</tr>
<tr>
<td>Antony-Val de Bièvre</td>
<td>Vocational Training &amp; Link with the universities</td>
<td>AD</td>
</tr>
<tr>
<td>Cergy</td>
<td>of the second level &amp; Second Level</td>
<td>AD</td>
</tr>
<tr>
<td>Etiolles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saint-Germain-en-Laye</td>
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Training of Trainers

AD

AD= Assistant Director

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<thead>
<tr>
<th>Associated Universities</th>
<th>Official Representative</th>
<th>Community Services</th>
<th>Central Services</th>
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<td>Research</td>
<td>Artistic education and cultural action</td>
<td>General management</td>
</tr>
<tr>
<td>Evry-Val d'Essonne</td>
<td>School adaptation and integration</td>
<td>Communication</td>
<td>Financial Services</td>
</tr>
<tr>
<td>Paris Sud-Orsay</td>
<td>TICE</td>
<td>International Relations</td>
<td>Schooling Services</td>
</tr>
<tr>
<td>Paris X-Nanterre</td>
<td>Experimental Sciences</td>
<td>Documentary Resources</td>
<td>Initial Training</td>
</tr>
<tr>
<td>Versailles-Saint-Quentin</td>
<td>Telematics and Networks</td>
<td>Sports</td>
<td>Continuing Training</td>
</tr>
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<td>Human Resources</td>
</tr>
<tr>
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<td></td>
<td>Computer Science</td>
</tr>
<tr>
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<td>Markets</td>
</tr>
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<td></td>
<td></td>
<td>Hygiene and Security</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Internal Services</td>
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Table 4
Estudiante para docente de educación primaria
Cuadro recapitulativo de la organización de la capacitación en 1º año

<table>
<thead>
<tr>
<th>FIELDS OF TRAINING</th>
<th>HOURLY VOLUME</th>
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<tr>
<td></td>
<td>BY UNIT</td>
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<tr>
<td>French</td>
<td>CM 24</td>
</tr>
<tr>
<td></td>
<td>TD 24</td>
</tr>
<tr>
<td></td>
<td>½ TD 36</td>
</tr>
<tr>
<td>Mathematics</td>
<td>CM 24</td>
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<tr>
<td></td>
<td>TD 24</td>
</tr>
<tr>
<td></td>
<td>½ TD 36</td>
</tr>
<tr>
<td>EPS</td>
<td>TD 40</td>
</tr>
<tr>
<td></td>
<td>½ TD 20</td>
</tr>
<tr>
<td>History and Geography</td>
<td>18</td>
</tr>
<tr>
<td>Experimental Sciences and Technology</td>
<td>36</td>
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<tr>
<td>Visual Arts</td>
<td>18</td>
</tr>
<tr>
<td>Music Education</td>
<td>18</td>
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<tr>
<td>Modern Languages</td>
<td>18</td>
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<tr>
<td>Optional History Geography or Science and Technology</td>
<td>TD 40</td>
</tr>
<tr>
<td></td>
<td>½ TD 20</td>
</tr>
<tr>
<td>Modern languages or Visual Arts, or Music Education</td>
<td>TD 20</td>
</tr>
<tr>
<td></td>
<td>½ TD 20</td>
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</table>

Competencies related to knowledge of institution and publics 60

<table>
<thead>
<tr>
<th>Competencies related to knowledge of institution and publics</th>
</tr>
</thead>
<tbody>
<tr>
<td>TICE 6</td>
</tr>
<tr>
<td>Workshop of problematization and oral expression 18</td>
</tr>
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</table>

Practices

<table>
<thead>
<tr>
<th>Practices</th>
<th>In Situ</th>
</tr>
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<tbody>
<tr>
<td>Practice in nursery school</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Activities of preparation and acquisition of skills</td>
<td>36</td>
</tr>
<tr>
<td>Practice in elementary school</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Activities of preparation and acquisition of skills</td>
<td>36</td>
</tr>
</tbody>
</table>

The teachings are provided:
In front of the Classroom (CM)
In classwork groups (TD)
In ½ classwork groups (1/2 TD)
### Table 5
Cuadro recapitulativo de la estructura del concurso

<table>
<thead>
<tr>
<th>TESTS</th>
<th>DURATION</th>
<th>FACTOR</th>
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<tr>
<td><strong>WRITTEN TESTS</strong></td>
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<tr>
<td>Written test of French</td>
<td>4 hours</td>
<td>4</td>
</tr>
<tr>
<td>Written test of Mathematics</td>
<td>4 hours</td>
<td>4</td>
</tr>
<tr>
<td>Oral test: pre-vocational interview including an talk followed by a discussion with the board of examiners</td>
<td>1h preparation 20 min talk 25 min interview</td>
<td>4</td>
</tr>
<tr>
<td><strong>ADMISSION</strong>, Oral test (according to the candidate’s choice) on:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Science and technology</td>
<td>1h30 preparation 15 min. talk 15 min. interview</td>
<td>2</td>
</tr>
<tr>
<td>- History and Geography</td>
<td></td>
<td></td>
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<tr>
<td>Oral test (according to the candidate’s choice) on:</td>
<td></td>
<td></td>
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<tr>
<td>- Modern foreign language</td>
<td>Modern Language 15 min. preparation for the pedagogical part 30 min. audition included, of which 10 min. for the interview in French concerning the pedagogical support</td>
<td>2</td>
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<tr>
<td>- Plastic Arts</td>
<td>2hrs of plastic art work 20 min. interview</td>
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</tr>
<tr>
<td>- Music</td>
<td>30 min de preparation 20 min de preparation</td>
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</tr>
<tr>
<td><strong>TESTS OF PHYSICAL EDUCATION AND SPORTS</strong></td>
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<tr>
<td>Test of physical education and sports (according to the candidate’s choice):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- 2000mts. chrono race</td>
<td>Sequence of physical activity 20 min. interview</td>
<td>2</td>
</tr>
<tr>
<td>- dance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- badminton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>30 min de preparation 30 min de interview</td>
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### Cuadro 6

**Profesor en práctica para docente de educación primaria**

Cuadro recapitulativo de la organización de la capacitación en 2º año

<table>
<thead>
<tr>
<th>Competencies related to the knowledge of the institutions and publics</th>
<th>60</th>
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<tr>
<td>Competencies related to the mastering of tools</td>
<td>15</td>
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<tr>
<td>TICE and documentation</td>
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<tr>
<td>Culture</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
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<table>
<thead>
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<th>Professional Practices</th>
<th>Supervised practice</th>
<th>In Situ</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>3 weeks</td>
</tr>
<tr>
<td>Accountability practice</td>
<td></td>
<td>1 weeks</td>
</tr>
<tr>
<td>Practice in college</td>
<td></td>
<td>9 weeks</td>
</tr>
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<td>Dissertation</td>
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TICE = ICTT = Information and Communication Technologies for Teaching
This paper is divided into three sections. The first, an international scenario of teacher education, suggests that there are common issues and challenges facing teacher education in all parts of the world. How these are addressed, it is suggested, is crucial to realising the ambitious plans that exist, for achieving universal primary education (an urgent goal in many developing countries) and raising the quality of schooling (an equally urgent goal in most countries).

In the second section the English model of pre-service and in-service teacher training (continuing professional development) is discussed in some detail. This is a system that has undergone radical reform in the last decade. Many countries are looking with interest, even curiosity, at the directions followed. One aspect of the English reform has been the introduction of open and distance learning approaches using new forms of information and communication technologies.

The third section outlines briefly the relevance of these projects to the global debate about the future of teacher education. These approaches have been school-based in a number of projects in other parts of the world.

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SECTION I

AN INTERNATIONAL SCENARIO FOR TEACHER EDUCATION

Teacher education across the world is undergoing significant rethinking and reform. Most, if not all, countries have teacher education at the forefront of national policies.

Expanding populations continue to make huge demands on the institutions responsible for preparing teachers. In South Africa, for example, pre-service teacher training expanded at 15 per cent per year through the 1990s, and training by distance education by 23 per cent (South African Ministry of Education, 1996). In Tanzania 6000 primary teachers a year are graduating from an already overloaded teacher training system. In the period up to 2006, however, an additional 48,000 are required and by 2010 this figure jumps to 116,700. The competition from a range of increasingly knowledge-based occupations is threatening the supply of teachers in many countries.

In some parts of the world, particularly sub-Saharan Africa, HIV/AIDS is impacting on the teaching force. UNICEF has estimated that, in the last year of the last century nearly a million children in Africa lost their teacher to the AIDS epidemic (UNICEF, 2000).

In the UK the recruitment of teachers for subjects such as mathematics, technology, and languages fell significantly short of need. In California decisions to reduce class sizes in K1–3 schools has created a huge teacher demand in a context where recruitment was already problematic. The quality of teacher education is also now widely debated, professionally and more generally in the media. Finally there is widespread recognition that teacher education must be a career long process of development, at least equal in form and status to that enjoyed in law, medicine and comparable professional groups. The scale of this demand, if recognised globally, is enormous (Moon, B., et al., 2000).

From this it follows:

- that the ‘bricks and mortar’ institutions developed around teacher education to serve the needs of the twentieth century will be wholly inadequate for the twenty first;
- that the implicit and explicit models of development, derived from such bricks and mortar institutions, are insufficient to meet the changed circumstances of most, if not all, national contexts;
- that the new generation of school-based systems will inevitably be integrated into the conventional institutional structures of teacher education.

Two important points of qualification: first, making this argument is not to suggest the demise of the existing institutional structures. There has been, after all, a world wide trend towards placing teacher education within the University. Such institutions, however, must adjust and change to become part of a broader landscape if we are to significantly improve the access and opportunity that teachers have for dignified, rel-
The use of the word 'dignified' may seem out of place. Yet many people continually come across teachers trying to improve their knowledge and skills in the most appalling of circumstances: a group of over 300 teachers of literature in an unheated, poorly lit gymnasium in the Russian province of Nivishny Novgorod; the teacher of English who set off each morning, and returned each evening, on a three hour journey in massively overcrowded buses, from Beni Suef to reach the in-service course in Cairo; primary teachers in a London borough meeting in a ‘pub’, the only free venue, to plan a literacy campaign. All over the world, just as children and schools are underdeveloped and under pressure, so the teachers take the strain.

This raises a second point. The literature and ideas of teacher education resolutely accept the division between the developed, mostly northern countries, and the resource constrained regions to the south. This is the colonial inheritance of the nineteenth century transposed into the aid and dependency systems of the present century. But this will change, and change rapidly, in the coming decades. National educational systems will increasingly co-exist on greater terms of equality than ever before. The forms and quality of teacher education must evolve in similar ways, with the likelihood that development and co-operation will go beyond the boundaries of national systems.

The institutional structures of teacher education have been developed in this century primarily to provide a pre-service training for the expanding teaching force in national, state systems of education. The focus was usually on the primary sectors and only in the latter part of this century has formal teacher education touched those preparing to teach in secondary, often elite institutions. The way such institutions have evolved, particularly the way they have found their way into the embrace of the universities, has been much discussed (Neave, 1992). And they have certainly, in many countries, come to embrace a much broader vision of teachers’ professional development than was originally the case. Few, however, would suggest that the scale and nature of demand can be met by the present structures.

A number of factors, however, are combining to open up new possibilities. First there is the increasing recognition that the ‘school’ should be a more central part of the development process. Unlike medicine, as the status of teacher education grew in the latter part of the twentieth century, so the process became less, rather than more, school based (Moon, 1996). In many countries, where professional development became almost synonymous with higher degrees and diplomas, teachers often left their school for a year or more at a time to obtain the new qualification. Perhaps the move away from the very instrumental apprenticeship that characterised much teacher education was a necessary correction. But it has served its time. For some years now there has been a powerful advocacy for a more school based, action oriented fusing of theoretical and practical perspectives on the development process. In a number of countries this is coming increasingly to command the interest and respect of policy makers. Teacher support needs to acknowledge the authenticity of the context in which teachers work, however economically or philosophically challenged that might be.
Second there is the beginning of a common global interest in the educational foundations of the teaching profession. Sharp contrasts remain. What a teacher can expect from the Danish Royal School of Educational Studies is very different from someone playing a parallel role in the Eastern Cape Province of South Africa or the Skhodra district of northern Albania. The debate about teacher education is, however, a global one. International organisations such as UNESCO and the World Bank played a role in this process. The idea, however, that the twentieth century models of teacher education created in the richer countries should be simply replicated all over the world is becoming increasingly challenged.

Third, there is the explosion of new forms of communication with the widespread adoption of older technologies such as television and the, possibly much quicker take up, of newer interactive technologies associated with the growth of the internet and the World Wide Web. Almost at a stroke, significant new horizons have been opened up. The previously cherished and separate worlds of publishing, broadcasting and, dare we say it, even 'The University' are all challenged and threatened by a revolution that arguably is already more significant that Guttenberg.

Finally there is an increasing acceptance that learners of all sorts need a rich and diverse range of prompts and stimuli. The passive lecture format, even supplemented by some personal seminar support, looks increasingly threatened as a pedagogic strategy. The arrival into mainstream thought of what some have termed 'the cognitive revolution' has its echoes in the way we think of teachers' learning (Bruner, 1996). Yet the institutions of teacher education, like most schools, with classrooms and lecture theatres, are premised on the older forms of pedagogy. Although over-hyped in some quarters, new ways of accessing information and forming dialogues create opportunities to revisit, review and rehearse learning in ways that hitherto were logistically and economically impossible.

In summary, therefore, the suggestion is that over the medium term future teachers will expect to be offered and participate in more developed forms of professional development than is currently offered, that this will be significantly based in their own and local schools, that 'online' electronic communication will be an important aspect of this increasingly international experience.

SECTION II

THE ENGLISH MODEL OF TEACHER EDUCATION
PRE-SERVICE TRAINING

In the early 1990s significant reforms were introduced into the English education system. These were controversial at the time and amongst some remain so. Although rooted in the politics of the English context they were a response to some of the key
issues identified in the international scenario described above. For example, there was a strong push to diversify the routeways into teaching. Whereas previously all teacher education had been through face-to-face college and university courses, new programmes were introduced. Students with some prior vocational experience were allowed, without teacher training, to go straight into teaching and follow part-time training courses. The national Open University was provided with government funds to launch an open and distance pre-service training programme for primary and secondary teachers (see Leach and Moon, 2000). This graduated a thousand teachers a year through the 1990s.

The government also introduced teacher training regulations that insisted trainees spend significantly more time on practical placements in schools than had traditionally been the case. Regulations also came into force to specify training outcomes and a new national system of inspection was introduced covering all training institutions, including the Universities. These changes, introduced by a Conservative government, have been kept in place by the Labour government headed by Prime Minister Tony Blair.

In looking at the situation today a number of general points can be made:
- most teachers are educated and trained in university level institutions of higher education
- the academic and training requirements of primary and secondary teachers is comparable
- there has been a significant shift from concurrent four year integrated academic and pedagogic courses towards a consecutive model, three year specialist degree followed by a one-year postgraduate teacher qualification certificate
- primary teaching has become more popular than secondary teaching and there is an officially recognised crisis in the recruitment of secondary teachers to subjects such as Mathematics, Science, Modern Foreign Languages, Technology and even English and Geography
- attempts to diversify the routes into teaching have multiplied, although the numbers taking these options remain small.

In describing the different aspects of teacher education and training three areas will be considered: structures, curriculum, and the incentives to enter teaching.

STRUCTURES

The main route into teaching is through a one year postgraduate course. This is provided by universities and successful completion of the course also leads to qualified teacher status. The university awards the certificate but the formal granting of qualified teacher status rests with the Department for Education and Skills, the national ministry body.

An alternative is through a usually four-year, undergraduate Bachelor of Education course, again provided by a university. These courses have a lineage that goes
back to the primary courses of the teacher training colleges. Four year courses also exist in some secondary subjects, although provision varies from university to university.

In 2000 21,150 teachers entered through one year PGCE courses, compared with 8,960 who entered through undergraduate courses.

There are currently three other ways of obtaining qualified teacher status. Two are already in operation:

- through a school-based teacher education consortium groups of schools, on a voluntary basis, link together to offer a teacher preparation course for graduates. They receive, on each trainee, a sum of money which is slightly more than the figure given to universities. It is up to the consortium to decide how the training should take place and they can if they wish ask a university to accredit the course.
- fast-track graduate entry graduates with a high motivation to become teachers can apply to bypass much of the conventional training, participate in practical experience in a number of schools, and pass through quickly into qualified teacher status.
- flexible, postgraduate courses this is a new form of diversification planning to recruit significant numbers from 2002 onwards: the courses are modular in structure and involve a strong element of needs analysis at the outset; those with previous teaching experience, perhaps overseas, can claim prior experience and follow a quicker route through to qualification. This is a university-based route, and the Open University is by far the biggest provider.

For over ten years the Open University has been training teachers with a new school based model of open and distance learning. Students are given text and audio-visual resource, they have interactive and web support and they must carry out periods of teaching practice in schools. They are supported by tutors and mentors in schools.

These courses are aimed at more mature entrants into teaching who chose, at the beginning of their careers, occupations other than teaching. Take-up has been good. It is clear that if a part-time routeway into teaching is offered then a new type of person is attracted to teaching. For example, amongst Open University the two most popular teaching subjects are mathematics and science. If the opportunity to teach is given in mid career then the prejudices against teaching as a career seem to have dissipated. And the early evidence suggests that such people stay in teaching more readily than those, usually at an earlier age, who follow more conventional routes (Bird, 2002).

**CURRICULUM**

The balance of time spent in schools is regulated for the postgraduate and undergraduate courses (see Table 1 below).
Table 1
Regulated time trainers must spend in school – past postgraduate and graduate courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year courses – primary</td>
<td>18 weeks</td>
</tr>
<tr>
<td>1 year courses – secondary</td>
<td>24 weeks</td>
</tr>
<tr>
<td>3 year courses – primary</td>
<td>24 weeks</td>
</tr>
<tr>
<td>3 year courses – secondary</td>
<td>24 weeks</td>
</tr>
<tr>
<td>4 year courses – primary</td>
<td>32 weeks</td>
</tr>
<tr>
<td>4 year courses – secondary</td>
<td>32 weeks</td>
</tr>
</tbody>
</table>

The regulated curriculum of primary trainees has more content than that for secondary trainees. The subject knowledge requirement, for example, is wider. The proportion of teaching experience in schools is, therefore, less.

England is developing more diversified ways of gaining qualified teacher status than any other country in Europe. As yet, however, the numbers taking the new routes into teaching are low. For the foreseeable future universities are likely to be training at least 4 out of 5 teachers.

A key aspect of the recent changes is to place much greater emphasis on school experience or practice. It is important to say that trainees like this. Research studies have charted the more positive evaluations that trainees give to their courses following the introduction of the school-based approach.

A key aspect of the curriculum, therefore, is the quality of the experience that can be provided in schools. Most universities now have well developed schemes that set out what takes place in the school and what form the curriculum within the University takes. Experienced teachers from the schools participate in the planning and implementation of the programme. Schools, especially secondary schools, will often have more than one trainee and the programme co-ordinated by a senior member of staff. A variety of forms of partnership exist. HMI inspections make judgements about the quality of the partnership as a whole as well as its component parts.

Equally significant is the role of the experienced teacher who acts as ‘mentor’ to the trainee. Mentoring is practised now across a range of professional and commercial contexts. In one sense it has always existed, albeit in an informal way. In England it has traditionally been part of a teacher’s role to support those in training. Under the present regulations, however, mentoring has become much more formal and professionally organised. All universities provide some form of training for mentors, including the role they play in assessing trainees during and at the completion of the course. A number of universities offer courses in mentoring that can contribute to a professional qualification at postgraduate level (viz. a Masters degree).

A strong determinant of the curriculum is pre-service education in the statement
of standards, or outcomes of training that all training institutions must work to. These are established by a national agency responsible for training, the Teacher Training Agency (http://www.canteach.gov.uk/) and have to be agreed by Ministers prior to the regulations being published. The table below shows the outline of these statements as they exist in 2002.

Pre-service teacher education has, therefore, become a much more instrumental, practical some would say, process with little time available for speculative work around educational theorising.

Whilst rarely formally expressed, successive governments have looked with some disdain on some of the prevailing orthodoxies that have featured on the international agenda for teacher education. In the mid 1990s, for example, ideas of reflective practice or the reflective practitioner were the subject of much criticism. Despite this, many teacher educators attempt to retain a self-critical perspective in their work. Alongside this more recent currents of thought, largely influenced by developments in the USA, have become influential.

Currently there is a strong interest in the situated, social perspectives on learning (Lave and Wenger, 1991; Wenger, 1998; Putnam and Borko, 2000). The idea of teachers working within communities of practice that provide internally both forms of initiation and the potential for development, is seen as relevant to both pre-service and continuing professional development. Although the rhetoric around these themes is not as well established as in the USA its importance is growing. The forms that such communities might take is varied but ‘subjects’ (i.e. mathematicians, scientists, historians) provide one organising category. This has some fit with official government enthusiasm to promote ‘subject’ rather than educational theory as a main focus for pre-service and professional programmes.

INCENTIVES TO ENTER TEACHING

A characteristic of pre-service teacher education in England today is the crisis faced in recruiting secondary teachers. This is not unique to England. Many countries are finding that the attraction of the new technologically orientated knowledge based occupations are drawing significantly from the pool that traditionally supplied the teaching force.

Additional factors in England in the early years of the century was the relatively buoyant state of the economy and the rather poor media reporting given to teaching. Secondary schools, in particular, are often seen as difficult and demanding to work in. This impacts in England at the recruitment and employment phase. Also, alongside this, have to be set figures which are showing that only 3 out of 4 trainees actually enter teaching.

In 2000 the Labour government responded by paying postgraduate trainee teach-
Table 2
Teacher Education Standards Statements 2002

<table>
<thead>
<tr>
<th>Standards statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Professional values and practice</strong></td>
</tr>
<tr>
<td>The student teacher demonstrates:</td>
</tr>
<tr>
<td>- a positive attitude towards becoming a teacher and taking responsibility for their learning;</td>
</tr>
<tr>
<td>- a willingness to become involved in the wider life of the school, and its community;</td>
</tr>
<tr>
<td>- professional behaviour;</td>
</tr>
<tr>
<td>- consideration towards and respect for staff and pupils.</td>
</tr>
<tr>
<td>a willingness to learn from course materials, partnership staff and self-evaluation in order to improve practice;</td>
</tr>
<tr>
<td>- an awareness of teachers' statutory responsibilities.</td>
</tr>
<tr>
<td><strong>Knowledge and understanding</strong></td>
</tr>
<tr>
<td>The student teacher demonstrates:</td>
</tr>
<tr>
<td>- achievement of ITP targets in subject knowledge, ICT, literacy and numeracy;</td>
</tr>
<tr>
<td>- an overview of the National Curriculum and post-16 requirements in general;</td>
</tr>
<tr>
<td>- for their subject, an understanding of the National Curriculum programmes of study.</td>
</tr>
<tr>
<td>- an understanding of learning theories and factors influencing pupils' learning;</td>
</tr>
<tr>
<td>- an awareness of a range of teaching strategies that can help to establish a purposeful learning environment and promote good behaviour.</td>
</tr>
<tr>
<td><strong>Planning, expectations and targets</strong></td>
</tr>
<tr>
<td>The student teacher demonstrates that with the help of a mentor they can produce detailed planning documents for single lessons that show:</td>
</tr>
<tr>
<td>- appropriate teaching and learning objectives;</td>
</tr>
<tr>
<td>- planning for assessment;</td>
</tr>
<tr>
<td>- an awareness of health and safety issues.</td>
</tr>
<tr>
<td>- an awareness of pupil prior learning;</td>
</tr>
<tr>
<td>- an awareness that pupils have diverse needs and interests;</td>
</tr>
<tr>
<td>- an awareness of a range of resources, including ICT.</td>
</tr>
<tr>
<td>Monitoring and assessment</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>an overview of National Curriculum assessment and examination requirements;</td>
</tr>
<tr>
<td>an awareness of the need to record pupil attainment.</td>
</tr>
</tbody>
</table>

When teaching, the student teacher can carry out pupil assessment with the help of a mentor that shows:

- immediate and constructive feedback to pupils;
- a recognition that pupils have diverse levels of attainment;
- the use of a range of assessment techniques;
- assessment matched to learning objectives.

<table>
<thead>
<tr>
<th>Teaching and class management</th>
<th>The student teacher demonstrates that with the help of a mentor they can teach whole lessons and small groups that show:</th>
</tr>
</thead>
<tbody>
<tr>
<td>secure subject knowledge;</td>
<td>an awareness of a range of teaching strategies;</td>
</tr>
<tr>
<td>an understanding of National Curriculum and/or national qualification requirements, as appropriate;</td>
<td>an awareness of the need to match learning objectives to individual pupil need and interest;</td>
</tr>
<tr>
<td>an awareness of ICT;</td>
<td>appropriate time management;</td>
</tr>
<tr>
<td>positive relationships with pupils;</td>
<td>carefully and safely organized space and resources;</td>
</tr>
<tr>
<td>a purposeful learning environment;</td>
<td>a consistent use of rules and routines for pupil behaviour.</td>
</tr>
<tr>
<td>learning objectives that are clear to pupils.</td>
<td></td>
</tr>
</tbody>
</table>

ers a ‘training bursary’ of £6000. For postgraduates training to teach mathematics, science, English, modern languages, design and technology, and Information and Communication Technologies this figure is topped up by a ‘golden hello’ of a further £4000. Slightly different arrangements exist on other routes. No payment is made for 4-year undergraduate courses (another indication of the government wish to encourage a move to a consecutive model).

The problem of recruitment and retention is acute. Currently in England teachers from Australia, New Zealand and South Africa are filling the gap left by the short fall in recruitment. Some European countries (the Netherlands, Ireland) are also providing teachers.
The system of teacher recruitment to training and the route on into employment as a teacher is very loosely organised. Trainees do not have any link with local educational structures (as they do in France and Germany, for example). Teachers are not civil servants. All teaching posts are advertised nationally and competed for against a national pool of applicants.

It is interesting that despite taking a highly controlled and centralist approach to the education and training of teachers, there has been little attempt to enforce central organisation of recruitment and employment. That part of the educational system remains, as it was traditionally, a devolved and, essentially, free marked in approach. How long that is sustained may well depend on how deep the crisis in recruitment becomes. There are some signs that the incentive payments and extensive advertising campaigns on television and in the press are attracting more entrants into teaching. The chart below shows the changes in the applications for training courses between 2001–2002.

Table 3
Applications for training places 2001–2

<table>
<thead>
<tr>
<th>Subject</th>
<th>August 2002</th>
<th>August 2001</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>1,949</td>
<td>1,698</td>
<td>+251</td>
</tr>
<tr>
<td>English</td>
<td>3,662</td>
<td>3,140</td>
<td>+522</td>
</tr>
<tr>
<td>Sciences</td>
<td>3,575</td>
<td>3,670</td>
<td>-95</td>
</tr>
<tr>
<td>Modern foreign languages</td>
<td>2,454</td>
<td>2,540</td>
<td>-106</td>
</tr>
<tr>
<td>History</td>
<td>1,942</td>
<td>1,963</td>
<td>-21</td>
</tr>
<tr>
<td>Geography</td>
<td>1,186</td>
<td>1,217</td>
<td>-31</td>
</tr>
<tr>
<td>Technology</td>
<td>3,031</td>
<td>2,255</td>
<td>+776</td>
</tr>
<tr>
<td>Art &amp; design</td>
<td>1,790</td>
<td>1,636</td>
<td>+154</td>
</tr>
<tr>
<td>RE</td>
<td>651</td>
<td>737</td>
<td>-86</td>
</tr>
<tr>
<td>Music</td>
<td>638</td>
<td>648</td>
<td>-10</td>
</tr>
<tr>
<td>Physical education</td>
<td>1,986</td>
<td>1,743</td>
<td>+243</td>
</tr>
<tr>
<td>Welsh</td>
<td>40</td>
<td>43</td>
<td>-3</td>
</tr>
<tr>
<td>All secondary</td>
<td>24,465</td>
<td>22,589</td>
<td>+1,876</td>
</tr>
<tr>
<td>All primary</td>
<td>17,906</td>
<td>15,045</td>
<td>+2,861</td>
</tr>
</tbody>
</table>
CONTINUING PROFESSIONAL DEVELOPMENT

Formal, institutional provision for continuing professional development (CPD) or in-service training of teachers, has a much more recent lineage than provision for pre-service education. Historically CPD (as it is now commonly known) has been resourced at fairly minimal levels. The organisation was largely the responsibility of Local Education Authorities (LEAs) and markedly different practices existed across the country. Three forms of provision have existed:

- LEA support by advisory teachers; most LEAs have a group of staff who would run courses and visit schools, only recently has this support been systematically applied;
- school-based support; over the last twenty years there has been a growing acceptance that the school as a whole has responsibility for the development of all teachers;
- universities; most universities offer some form of CPD provision which is usually linked to postgraduate diplomas or Masters level degrees relatively small numbers of teachers participants.

In the 1970s and 1980s there were a number of national attempts to raise the importance of CPD. In the early 1970s the James Report, a high level national enquiry, proposed a radical shake-up of CPD including teacher entitlements to sabbaticals and a much more planned approach to provision.

None of the recommendations were implemented. The Labour government that had set up the enquiry had been succeeded by a Conservative administration which balked at the resource implications. LEAs were often taking money for CPD but then diverting it to other purposes. Post 1990, two phases of development can be seen.

First, a more competitive approach to funding was introduced. Government set aside sums of money against targeted areas (school management, for example) and told LEAs that if they wanted funds they would have to 'bid' for it and then guarantee that the funds were spent for the purpose allocated.

Second, government put strong pressure on LEAs to devolve the general budgets for CPD to schools and allow schools to decide how the money was spent.

In CPD, therefore, you see the manifestation of another policy initiative, pursued by Conservative and Labour governments, namely to privatise services. Most LEAs now organise their advisory services as if they were independent commercial organisations. Revenue comes from schools purchasing CPD and from inspection (the inspection of schools is carried out in England by private groups co-ordinated by the national Office for Standards in Education, OFSTED).

There is now a strong expectation on schools to produce regularly updated school development plans. When schools are inspected (currently every four years) the quality of these plans, including CPD planning, is reviewed. The policy pressure is to making the school an autonomous unit and the purchasers of services such as
CPD. National and regional programmes do exist, in areas such as literacy and ICT training but again a competitive, market situation will frequently characterise provision.

For example, between 2000 and 2003 a national programme budgeted at £230 million was set up for the training of teachers in the use of ICT for teaching and learning (i.e. beyond basic skills). The model adopted (and this was UK-wide) was to set out a training specification, invite organisations to submit themselves for accreditation against the specification and then give schools free choice to purchase training from any of those on the accredited list.

In 2000 the Labour government launched a national consultation around the theme “Professional Development: support for teachers and learning”. In that document ten principles were suggested as a foundation for a national policy towards CPD.

- that effective teachers should “take ownership and give high priority” to professional development, and schools and teachers should “share responsibility and commitment” for development, supported by Government;
- that professional development should be centred on “raising standards” in the classroom, and therefore take account of objectives to enhance pupil learning, as well as supporting broader professional skills such as working with external partners;
- that a “wide range of development opportunities” should be available, to suit different needs;
- that there should be “equality of opportunity” for professional development;
- that “teachers should learn on the job and from the best”, working alongside other professionals in the classroom;
- that continuing efforts should be made to look for “better ways to use the time and resources” available for professional development;
- that “ICT should play a central role” to support opportunities for self-learning at times and places to suit individuals;
- that professional development should be “high quality” and teachers and schools should be discerning customers;
- that “good planning and evaluation” are essential to make the most of professional development;
- that information should be shared widely about lessons learned and good practice, making the most of the potential of ICT.

In the subsequent consultation process the government reported that 90% of respondents agreed with these principles. In 2000 and 2001 two important policy documents set out frameworks for CPD: “Teachers: meeting the challenge of change” (DfEE, 2000), and “Learning and Teaching: A strategy for professional development” (DfEE, 2001)

For anyone outside the English context it is important to make three policy points. First, central control of the direction of teacher education generally, and continuing professional development specifically, is now greater than it has ever
been. Although individual schools and teachers are free to develop their expertise autonomously, on many issues they cannot forsake the national agenda. In this respect government controls through resource allocation and most specifically through its inspection of schools regime. The Ministry rather than the Teacher Training Agency controls CPD, although a national General Teaching Council has been established which could, if more autonomy was granted, take a major role in CPD planning.

Secondly, the agenda for reforming schools and raising standards is directly linked to the use of the market, competitiveness and the adaptation into the education service of private, commercial expertise. In the Labour party manifesto, upon which Tony Blair won a massive victory, the incorporation of private sector expertise into the public sector was an explicit commitment.

Thirdly, professional development is being linked nationally and locally to systems for monitoring and appraising and, despite some strident objections from teacher unions, salary level.

Teachers are required to have an annual performance review, the outcome of which can lead to additional discretionary pay awards. CPD is a key element within the review. At present (2001) £290 million is being dedicated to professional development and a further £170 million directed to the teaching of literacy and numeracy, currently government priorities, is mostly made up of professional development activities. In addition to the resources devoted to schools (via a mechanism called “The Standards Fund”) a range of CPD initiatives have been introduced, including:

- the setting up of an actual and virtual National Leadership College for education
- establishing grants for 5000 teachers a year to participate in a Teachers International Professional Development Programme
- providing teachers with Best Practice Research Scholarships
- setting up bursaries of between £500-£700 for teachers to pursue professional development projects.

The government has also introduced a ‘Code of Practice’ that establishes criteria by which the quality of a CPD is to be guaranteed. All CPD that is making use of government resources is also to be inspected. Great store is also being set about the use of ICT for professional development. A national Virtual Teachers College has been established although use and take-up by teachers up to 2001 has been relatively low.

A teacher, therefore, in a maintained school (just over 93% of pupils are taught in maintained, government funded schools in England) is planned to have the following formal CPD experience through their post pre-service career:

- support during their first “induction year” of training in line with a governmental specification of entitlement; 10% of the week should be devoted to this, funding is provided and successful completion is monitored by Headteachers and LEAs;
- after between 7 and 9 years of teaching it is possible to apply for a “threshold assessment”. Additional pay is granted if teachers can show evidence of how they meet eight national threshold standards of effective teaching;
- teachers can also apply to become an “Advanced Skills Teacher” and, where
they have to show high levels of classroom performance, again additional payment is received;
- leadership training is now provided by the National Leadership College and is compulsory for intending headteachers.

Most of the CPD support now comes, internally within the school, through private training organisations or through LEAs. Universities play a relatively small role in this area, although many teachers, often at their own expense, study for higher degree qualifications in different aspects of education. Universities, however, are not precluded from competing in the private sector workings of the CPD market. The extent to which they do will be one of the interesting developments of the next few years.

**SUMMARY POLICY CONCLUSIONS**

Changes in teacher education in England demonstrates five major policy directions that could be used as a basis for comparison with experience elsewhere. In summary:

**Universities remain major providers of primary and secondary pre-service provision**

Although strenuous attempts are being made to diversify provision the infrastructure of the University sector still provides the vast majority of qualified teachers. An uneasy relationship exists between government and teacher educators in the university sector. The next few years may see changes if the new routes into teaching attract much larger numbers.

**Teacher education is now highly centralised and regulated**

Twenty years ago government had little engagement with pre-service or CPD developments. The reforms of Conservative and Labour governments have brought decisions sharply back to London and to ministerial control. This includes control of all pre-service provision in the universities. How long such tight control, in what has traditionally been a devolved system, is sustained in coming years will be interesting to observe.

**School-based pre-service and CPD training is now accepted across the sectors**

It is difficult to conceive, in the foreseeable future, of any move away from the school based approach and the linked development of explicit standards and competences: easy
access to on-line interactive ICTs may deepen this approach. The significance of mentoring for pre-service might, in that context, extend as a process into CPD.

Teacher recruitment remains a significant national challenge

Whilst recruitment into primary teaching is relatively stable, attracting potential teachers into the secondary sector is an enormous problem. To what extent this is a consequence of a strong economy and contemporary public perceptions of the difficulties of working in secondary schools, or a reflection of a deeper systemic move away from teaching as a career, is difficult to discern.

Teacher education policies are being tightly tied to national approaches to improving standards and raising the performance of schools

This follows from the assertion about centralised control. A major thrust of policy is to establish linkages and mechanisms that ensure accountability processes between all parts of the system. Whilst easy to establish at a national policy level, the working out of what is termed 'joined-up thinking' at the local level may be more problematic. The major reforms described in the case study are too recent to come to any summative judgements.

Competitiveness, market approaches and the involvement of the private sector are seen as contributing to raise the quality of teachers joining the profession and the professional development targets achieved throughout a teacher's career.

Pre-service courses are now inspected and graded and the results published in league table format. CPD is bought and sold in a market context from which universities are largely absent. The private sector is seen by government as a way of rejuvenating public services, and education in particular. How successful this is (even how success can be judged) and the impact on other established forms of provision (the universities at pre-service, the LEAs in respect of CPD) will be a policy question to ask of the next few years.

SECTION III

The relevance of the English model of teacher training to wider international contexts

The English model is not a unique case. Many aspects have been derived from ideas and influences in other parts of the world. It does, however, bring together their influences in a particular juxtaposition that has attracted wider interest.

Most importantly is the move to make the training more practically school-
based with a curriculum structured around explicit standards or outcomes. New forms of partnership have had to be established between schools and training institutions. The support ‘mentor’ role in school has had to be developed. Trainees have responded very favourably to the model and, from a school perspective, there appears to be wider staff development benefits.

The use of new school-based models of open and distance learning, pioneered by the Open University, also appears to have a wider relevance. In Section 1 it was suggested that school-based training must expand if the pre-service and in-service needs of teachers are to be met. The statistics show starkly that this is a particular challenge in developing countries. The importance of raising the quality of teachers for the expanding primary enrolments is of particular significance.

Traditional models of training assume that the trainee is taught ‘away from’ the school. Traditional models of in-service and professional development assume that the teacher ‘leaves’ the classroom to go to a training centre or institution. Given the scale of demand there will not be the resources to perpetuate such a model in the years to come.

It follows, as discussed in Section 1, that new forms of school-based training needs implementing and this inevitably means the use of open and distance learning and information and communications technologies (Moon, B. 2001; Leach, 2000). The English experience with a teacher education curriculum that is politically focussed around standards has relevance, particularly where it has been applied to scale across national systems.

In this context a number of countries have been using the ideas and expertise in the design of new programmes.

In the Eastern Cape Province of South Africa underqualified primary and secondary teachers are being trained by the University of Fort Hare by this approach. In California untrained elementary teachers are receiving school-based training programmes from California State University through an open and distance learning model.

In Albania thousands of teachers have been participating in an open and distance learning professional development programme as part of the national restructuring of the educational system. In Egypt an Educational Enhancement Programme for primary teachers has been piloted and then extended nationally using the school-based, supported, open learning model. Most recently the Open University (UK) funded by the UK Department for International Development has been working with institutions and schools in Egypt and South Africa to pilot how new technologies might contribute to the development of school-based training as access and connectivity becomes more widespread.

Building on ideas pioneered in other parts of the world, Chile’s Enlaces project for example (Potashnick, M., 1996) teaching in remote rural areas through the Digital Education Enhancement Programme (DEEP), have been using laptop and hand-held
computers to support the teachers of literacy and numeracy in the primary years (Leach and Moon, 2002).

It is clear that new forms of technology and communication have enormous potential for the development of school-based training schemes. These technologies, particularly through the transformation in cell or mobile phone technologies are now spreading fast.

The international teacher education community, significantly so in some policy contexts, still shows reluctance to invest in research about the potential. However, there is a powerful critique (see, for example, Sen, A., 1999) of the view that 'some forms of human development and progress are a kind of luxury that only rich countries can afford'. This is an important area for debate and there clearly needs to be wider experimentation of the sort piloted in the Enlaces and DEEP projects (Leach and Moon, 2002).

Out of this analysis it is clear that no one model, the English or anyone else's, will meet the needs of the millions of teachers now working or about to work in a globally expanding school system. There are, however, policy structures and practical models (school based approaches, for example) that have and are being tested that are based on new assumptions about how teacher education and training can be provided. The debate around these needs widening.

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Teacher training in Israel

Dr. Drori Ganiel

The current school year in Israel began on September 01, 2002, and will end on June 30, 2002. This year, a total of 1,693,000 students (kindergarten - 323,000, primary - 772,000, intermediate cycle - 248,000, and upper cycle - 350,000) in 4,323 different schools with 119,000 teachers and 12,300 kindergarten instructors.

Israel is a small country that confronts complex problems that during the last decade absorbed nearly one million immigrants (a fourth of its population) who were rapidly incorporated into Israeli society. The country continues to develop and developing its quality education system that seeks excellence through the treatment of various themes and challenges that face it.

Education is at the head of national priorities. A significant part of investment is dedicated to teacher training. In the Ministry of Education, headed by Minister Limor Livnat and General Director Ronit Tirosh, there is a Department of Education, Training, and Guidance for instructors directed by Dr. Itzik Toner. The director is responsible for all teacher education, training, and guidance, teaching centers, and the Teacher Development Center.

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In the first part of this document we will present an analysis of the profile of those who study in the teacher training system: the type of students, conditions for admission, structure of studies and subjects, duration of studies and workshops, professional practice, and work carried out, as well as a description of studies for the masters degree.

The second part of this paper will briefly analyze the current guidelines for teacher training in Israel.

The third part of this document will be concerned with the professional enhancement. I will treat the activities carried out in the system, and the development of certified teachers, as a representative sample of this theme.

TEACHER TRAINING

During the last two decades, the training system for teachers has seen an increase in university-based training. Currently, most teaching instituted are at the university level, which awards their graduates a degree.

TYPE OF STUDENTS IN TRAINING INSTITUTIONS (*)

There are three kinds of students, in accordance with the following three training frameworks:

- Preparatory students: a program for completion of the Bachelors Degree, or optimization of qualifications for the baccalaureate in order to be accepted as regular students in teacher training institutions.
  Studies for obtaining the title, Bachelor in Education (B.ED.) and for teacher certification (equivalent to three or four years of university studies).

- Moreover, there are the following special tracks:
  Teachers for cities in development (Maof Plan)
  Soldier teachers - two years of study for soldiers, together with completion of military service in a teacher unit at the national level of the Israeli Army.
  National Service Teachers (service offered by religiously-oriented young people in place of military service)
  Immigrant teachers - certification studies for immigrant teachers who have a teaching title (up to 3 years in Israel).
  Kindergarten teachers for the Diaspora - special annual or biannual study plan.

* Universities also have training programs. Obtaining a teaching certificate in order to teach at the upper secondary level is conditioned upon previously obtaining a masters degree from a recognized university.
Plan for educational Excellence
Preparation of university students for teaching.

- Continuation of studies by active kindergarten teachers.
  Training studies to add to the teaching certificate - active teachers, with teaching
degrees, for whom the objective of study is to broaden their specialty or change
to a different area.
Active teachers with academic training, who have a degree, but no teaching
certificate, with at least 2 years of teaching experience, in order to obtain a first
teaching certificate.
Training - active teachers with teaching certificates who study in order to obtain
additional training, concentration on particular subjects, or other objectives.

RECEPTION OF CANDIDATES FOR REGULAR STUDIES

- Age Candidates are accepted who are 18 years of age or older (generally after
  military service). Institutions may increase the minimum entrance age, based
upon pedagogical considerations.
It is recommended that candidates of up to 40 years of age may be admitted (as
regular students) and up to 45 years of age (as continuing students). Candidates
may be received who are over this age, upon the condition that they present
themselves before an admission committee.
- high school diploma - in all programs and areas, only candidates are admitted
  who possess a high school diploma.
Those who do not possess the high school diploma may be admitted conditionally.
Candidates who pass a national classification exam with at least 85 points or
more, who are lacking only one subject in order to pass the final high school are
admitted into regular studies on the condition that they complete the pending
exam during their first year of study.
Students may not continue into the second year if they have not presented their
high school diploma.
Students over 30 years of age and without a high school diploma. All candidates
who wish to enter studies and who are over 30 years of age and do not have a
high school diploma, and who have obtained 85 points or more on a qualifying
exam, or 85 points or more on a psychometric exam may enroll as students in a
preparatory course. These candidates must pass a cycle of university preparatory
studies, taken at an academic institution and under its responsibility, before
beginning studies. The duration of the cycle is 12 semester hours, as explained
below:
Course | duration (semester hours)
--- | ---
English-Knowledge of the people and the land | 2 obligatory courses;
Hebrew/Arabic | 2 obligatory courses;
Academic doctrines | 2 obligatory courses;
Science and technology | 2 obligatory courses;
Introductory mathematics, variable, according to introduction to Israeli | 2 of 3 elective courses;
Thought studied.

National selection examination

General - The rules of the national selection exam serve as an obligatory admission exam for candidates to regular studies in a teacher training institution. This examination is meant to make possible the reception of candidates who are able to comply with the curricular requirements of university teacher training institute. Teacher candidates are admitted according to a selection method based on a combination of grades obtained in high school exams and on the results obtained in the psychometric admissions exam. The grade required for admission to study in a university teacher training institute is 85 points. The test grade is valid for the seven years immediately following the examination.

Candidates may present themselves for national selection examination at any institution, but only in two terms of the same year.

Candidates exempt from the national selection exam are the following:
- Those who possess a university degree recognized by the Higher Education Council, or a university degree recognized through the Diploma Assessment Unit of the Ministry of Education.
- Those with the title of Rabbi.
- Those who hold a teaching certificate.

Grade requirement - A passing grade is a simple average obtained on the high school examination (at least 70 points) and that obtained on the admissions exam (at least 70 points), or that of the psychometric examination.

Candidates with an composite minimum grade of 85 points may continue the admission process.

Guidelines for calculating an composite high school grade. The composite high school grade is based on grades and the quantity of units of study in the following subjects:
- The Bible
- Civic Education
- English
Mathematics

Expression in Hebrew

History (including History of the Jewish People)

Other subjects not on the above list and which students complete with programs of more than 4 units of study as a minimum, that contribute to the composite high school course.

Hebrew/Arabic language and expression - advanced studies - Anyone who has passed the high school exams in Language and Expression and who possesses the other requirements for admission has the right to be a candidate for a course of studies in a teacher training institute.

All of those who graduate as teachers in education institutes are required to dedicate themselves to intense study of Hebrew / Arabic. Those who graduate in teaching are classified in 3 levels:

Level A - basic - study of 6 hours per week
Level B - intermediate - study of 4 hours per week
Level C - advanced - study of 2 hours per week

University - based English. Beginning in the 2000 school year a classification exam was established for study groups in university-based English together with the obligatory admission exam.

All of those who graduate as teachers are classified on 6 levels:

Basic level - Study of 11 hours per week
Intermediate level - Study of 8 hours per week
Intermediate level 2 - Study of 6 hours per week
Advanced level 1 - Study of 4 hours per week
Advanced level 2 - Study of 2 hours per week

Institutional admission requirements - All teacher training institutions have the right to establish as a condition for admission a high school qualification in a given subject, or a minimum number of units of study in a given area, or a high school grade point average above the general requirements. Thus, in order to establish as an admission requirement a grade above 85 points for the institution in general, or for a given specialization beyond the general requirements.

The admissions committee of the institution interviews each candidate to determine his or her aptitude for teaching.

The institution grants a university degree or teaching certificate, defines the program of study that the student must complete, according to the requirements of the institution:

Number of hours, subjects of study, types of courses (whether workshops, seminars, and pro-seminars), projects and thesis work. A copy of the study plan is given to the student.
TUITION

The four-year study plan for obtaining a degree of Bachelor of education (B.ED.) requires payment of complete tuition for each of the years of study, and according to the monetary value of each year of study.

SUBSIDY SYSTEM (THE OBJECTIVE IS TO HELP PREFERENTIAL POPULATIONS)

Conditions for receipt of scholarships for teachers in cities under development or for a preferential scholarship.
- New students - years 1 to 3. Priority is given to students who have completed their obligatory military service and to students from national priority zones.
- Students who continue - years 2 to 4 (under determined conditions)
- The conditions to which those who receive a scholarship commit themselves depend on the needs of cities in development or of the preferential scholarship.

In general, the students are committed to study continuously in a 4-year university plan to obtain the first level of the Bachelor in Education (B.ED.). Moreover, the individual is committed to work for a year as a teacher for each year of scholarship granted, teaching in his or her area of specialization in the area for which the scholarship was created, immediately upon completing study.

The work done by the individual is in accordance with the needs of the system, determined by the Ministry of Education, giving priority to the north or south district, or in areas of national priority.

STRUCTURE OF STUDIES FOR REGULAR STUDENTS WITHOUT A TEACHING CERTIFICATE

Directed at:
- Bachelor in Education
  Teaching certificate recognized by the Council of Higher Education or university degree recognized by the Titles and Diplomas Unit of the Ministry of Education.
- For the Teacher Plan qualified to teach the subjects of Hebrew and Hebrew Subjects in the Diaspora, se section on Short Plans of study
- Students who continue - for the Bachelor in Education exclusively

PLANS AND SPECIALIZATION'S

The Plan is a framework of studies that trains individuals to teach a given age group within the education system.
Specialization's: a specialty is a subject of teaching or area of teaching that aids teaching within the framework of the school, and for which students are trained within a framework of 18 to 244 hours annually for the title of Bachelor in education according to a university plan authorized by the Higher Education Council.

Specification of specialties: by code number

<table>
<thead>
<tr>
<th>Code Subject</th>
<th>Code Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>013 History</td>
<td>150 Art &amp; Theater</td>
</tr>
<tr>
<td>022 Judaism</td>
<td>152 Scenic arts</td>
</tr>
<tr>
<td>024 Israeli Thought</td>
<td>153 Drama and creative expression</td>
</tr>
<tr>
<td>025 Information technologies</td>
<td>154 Creative education</td>
</tr>
<tr>
<td>026 The Bible</td>
<td>155 Movement and Dance</td>
</tr>
<tr>
<td>027 Oral Tradition</td>
<td>158 Cinematography</td>
</tr>
<tr>
<td>032 Hebrew</td>
<td>159 Navigation and nautical sports</td>
</tr>
<tr>
<td>035 Hebrew and general literature</td>
<td>160 Free time and recreation</td>
</tr>
<tr>
<td>042 Geography</td>
<td>161 Community education &amp; health</td>
</tr>
<tr>
<td>044 The People, the Land, the State</td>
<td>162 Accounting</td>
</tr>
<tr>
<td>045 Israeli Studies</td>
<td>165 Management &amp; accounting</td>
</tr>
<tr>
<td>048 Social Sciences</td>
<td>168 Secretarial science</td>
</tr>
<tr>
<td>049 Tourism, hotel management, recreation</td>
<td>172 Adult education</td>
</tr>
<tr>
<td>052 Islamic Studies</td>
<td>173 Christianity</td>
</tr>
<tr>
<td>062 English</td>
<td>175 Complementary education</td>
</tr>
<tr>
<td>065 Hebrew Literature</td>
<td>177 Dealing with young people</td>
</tr>
<tr>
<td>068 Arabic</td>
<td>178 Field work, nation &amp; society</td>
</tr>
<tr>
<td>072 Special Education</td>
<td>184 Training of school principals</td>
</tr>
<tr>
<td>076 Auditory deficiencies</td>
<td>193 Post: social coordinator</td>
</tr>
<tr>
<td>081 Biology</td>
<td>194 Post – didactic diagnosis</td>
</tr>
<tr>
<td>083 Nature (biology, chemistry, physics)</td>
<td>195 Post – teacher trainer</td>
</tr>
<tr>
<td>085 Chemistry</td>
<td>197 Post – librarian</td>
</tr>
<tr>
<td>087 Mathematics</td>
<td>199 Post – guidance counselor</td>
</tr>
<tr>
<td>089 Physics</td>
<td>205 Post – teacher trainer</td>
</tr>
<tr>
<td>092 Computer applications in education</td>
<td>238 The Bible &amp; Israel</td>
</tr>
<tr>
<td>095 Computer science</td>
<td>242 Adult education - Hebrew</td>
</tr>
<tr>
<td>097 Automatic data production</td>
<td>243 History &amp; Thought of Israel</td>
</tr>
<tr>
<td>100 Physical education for children</td>
<td>249 Craft design</td>
</tr>
<tr>
<td>101 Physical education for special education</td>
<td>255 Fashion design</td>
</tr>
<tr>
<td>102 Physical education</td>
<td>256 Industrial and creative design</td>
</tr>
<tr>
<td>103 Agriculture + Nature</td>
<td>263 Corrective pedagogy</td>
</tr>
<tr>
<td>104 Agriculture</td>
<td>266 Communication and direction</td>
</tr>
<tr>
<td>107 Music</td>
<td>268 Management of computer systems</td>
</tr>
<tr>
<td>108 Music for special education</td>
<td>269 Communication and Cinematography</td>
</tr>
<tr>
<td>109</td>
<td>Rhythm in music</td>
</tr>
<tr>
<td>110</td>
<td>Choral direction</td>
</tr>
<tr>
<td>111</td>
<td>Art (drawing, design, sculpture)</td>
</tr>
<tr>
<td>112</td>
<td>Fashion/fashion design</td>
</tr>
<tr>
<td>113</td>
<td>Graphic design</td>
</tr>
<tr>
<td>114</td>
<td>Photography</td>
</tr>
<tr>
<td>116</td>
<td>Jewelry/settings</td>
</tr>
<tr>
<td>119</td>
<td>Arts and crafts</td>
</tr>
<tr>
<td>121</td>
<td>Art and design</td>
</tr>
<tr>
<td>122</td>
<td>General design</td>
</tr>
<tr>
<td>125</td>
<td>Education &amp; Assistance with music</td>
</tr>
<tr>
<td>126</td>
<td>Education &amp; Assistance through art</td>
</tr>
<tr>
<td>129</td>
<td>Education &amp; Assistance through movement</td>
</tr>
<tr>
<td>133</td>
<td>Architecture &amp; design/construction</td>
</tr>
<tr>
<td>135</td>
<td>Electronics</td>
</tr>
<tr>
<td>139</td>
<td>Mechanization &amp; Control</td>
</tr>
<tr>
<td>140</td>
<td>General technology</td>
</tr>
<tr>
<td>143</td>
<td>Sports for the handicapped</td>
</tr>
<tr>
<td>144</td>
<td>Public health</td>
</tr>
<tr>
<td>146</td>
<td>Analysis of conduct in physical education</td>
</tr>
<tr>
<td>147</td>
<td>Improving posture through physical education</td>
</tr>
<tr>
<td>148</td>
<td>Using free time</td>
</tr>
<tr>
<td>149</td>
<td>Dance in physical education</td>
</tr>
</tbody>
</table>

**DURATION OF STUDIES**

- **Four years of study**
  Study for obtaining the degree of Bachelor in Education (B.ED.), the first university degree + teaching certificate (combined).

- **Three years of study**

**Training in Excellence for Education**

**Plan Objectives**

- Recruit for the teacher training system candidates with special aptitudes (of leadership, high learning capacity), who generally do not go into teaching.
- Train teaching candidates who have these aptitudes through special techniques, to they collaborate in carrying out change in teacher training institutes.
- Foster the training of education leaders who in the future will occupy a central place within the teaching community.
Conditions for entry
- Obligatory admission/psychometric exam - a minimum of a high school degree.
- Excellent performance in high school

Benefits for those chosen
- Three-year study plan
- Complete tuition waiver through granting of preferential study scholarship and a complementary scholarship granted by the institute.
- Study plan that is complemented by training for the post.
- Priority given for entry into the promotion ladder

Abbreviated study plan
(based on previous study) for regular students only, that brings together entry requirements of training institutes, for which an abbreviated study plan based on the recognition of previous study such as:
- University teachers, with university degrees recognized by the Israel Higher Education Council, or
- Students with foreign university degrees, or of foreign institutions in Israel, or
- Engineers in education, or
- Woman soldier teachers, women in National Service (regular studies only) or
- Those in teacher training plans or kindergarten teachers for the Diaspora for subjects of Judaism (plan of 1 year duration).

School year

Days of study and official holidays during the school year are followed according to a circular of the General Director regarding this theme which is published each year. The number of class hours per week is 30-40, including practice hours. A class session is considered to be at least 45 minutes. Each semester there are at least 15 class meetings. Practice days and examination days are not included in the calculation of class sessions.

Classes take place according to the composition of the table below:

<table>
<thead>
<tr>
<th>Training component</th>
<th>Annual hours of B.E.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Education studies</td>
<td>28 - 36</td>
</tr>
<tr>
<td>B. Teaching practice</td>
<td>18</td>
</tr>
<tr>
<td>C. Specializations</td>
<td>48 - 55</td>
</tr>
<tr>
<td>D. Arts and abilities</td>
<td>4</td>
</tr>
<tr>
<td>E. Basic studies (detailed in the following table)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103 - 113</strong></td>
</tr>
</tbody>
</table>
Basic Studies

<table>
<thead>
<tr>
<th>Component</th>
<th>Training</th>
<th>Annual hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Integration of information in teaching</td>
<td>2 + 2 complemented with training courses</td>
</tr>
<tr>
<td>C/E</td>
<td>Hebrew</td>
<td>2 - 6 according to level of student public, 6, public-religious 18</td>
</tr>
<tr>
<td>C/E</td>
<td>Judaism</td>
<td>according to program of institute 18</td>
</tr>
<tr>
<td>E</td>
<td>Physical education</td>
<td>according to program of institute</td>
</tr>
<tr>
<td>E</td>
<td>Safety, first aid</td>
<td>2</td>
</tr>
<tr>
<td>A</td>
<td>Socio-cultural activity &amp; education for democracy</td>
<td>according to program of institute</td>
</tr>
<tr>
<td>E</td>
<td>English</td>
<td>according to program of institute</td>
</tr>
<tr>
<td>A</td>
<td>Teaching career</td>
<td>according to program of institute</td>
</tr>
</tbody>
</table>

Practice Teaching

Each student of a teacher training institute should complete practice teaching according to the schedule of studies mentioned above, that is, 540 hours (not consecutive) during the first 3 years of training.

Of the variety of activities and exercises within the framework of the practice of teaching, the institute establishes the number of effective hours of individual teaching and the quantity of supervised practice classes. A supervised practice class is a class that is given in the presence of the teaching instructor or tutor teacher, or a specialist teacher in a given discipline, or a methodology instructor in the area of the students' specialization. Reports on supervised practice classes necessarily figure in the record of the student who receives this training.

Practice teaching is carried out in schools that are selected by the training institutions according to criteria that correspond to those of university teacher training processes.

The objective of practice teaching is learning through concrete and practical teaching situations in all fields in which teachers practice - whether in schools or in the community.

The organization of practice teaching can be for isolated classes, for a series of classes on a given day, or a number of given days during the week, concentrated into a two-week period, or in other forms of organization agreed to by the authorities in the school where the practice teaching takes place.

- The teaching instructor, the teacher/tutor, and the practicing teacher.
- The teacher/Kindergarten instructor/tutor/tutor in the class of whom the students practice. These are responsible, and collaborate in the practice process, guidance, and assessment of the student.
The practicing teacher, alone or together with the master tutor is subject to the classroom rules and those of the school, and must respect school rules in regard to dress, order, and conduct.

Within the framework of his or her practices, the individual teaches partial or complete study units, and participates in planning according to a schedule and activities that are prepared together with the teaching instructor, the master teacher in the classroom, and the administration of the school in which the practice teaching takes place.

The practice teacher takes an active part in the classroom and in the school. He or she is also involved in activities assigned, with individuals, small groups of students, with immigrant students, links with the community of parents-teachers-students, in the preparation of exams and their assessment, in the administration of the class library, in meetings with parents, and social activities for children, in computer-related activities, and in activities that involve different populations of students.

Practice includes teaching within the framework of different classes and in subjects in which the practice teacher has specialized.

Each student of a teacher training institute participates in such training processes and in all activities of the school where the practice teaching takes place, including in preparatory meetings before the school year begins, opening of the school year, closing of the school year, school festivities, as established by the training institution in which he or she studies.

In practice teaching, the student is involved in diverse activities organized by the training institute and the student council, as a contribution of services to society.

**COMPLEMENTING SPECIALIZED STUDIES IN THE 4TH YEAR**

The system for practice teaching during the year of specialization consists of working with remuneration equivalent to at least one-third of that for the first year of a teacher within the education system.

Fourth year students may complete their studies during this year, completing the requirements of the year of specialization.

The specialization in teaching is a stage teacher training which brings together the end of university studies for the teaching title and certificate and the beginning of the professional cycle of the individual under real conditions. This phase culminates with the granting of permission to exercise the profession - a teaching certificate - which allows the holder to work as a teacher. And just as with traditional occupations such as lawyers and economists, for teaching, the certificate is not valid if before receipt the holder has not specialized.

Two central processes accompany the person specializing during this practice year: support and assessment. Support and follow-up are carried out by a master tutor.
of the school, and the teacher participates in practice workshops in the Institute. An assessment is carried out at the middle of the year of specialization. There is a final assessment at the end of the year which is the responsibility of the Assessment Council of the school.

The basic goals of the year of specialization are enrichment of the students' theoretical and practical knowledge, and participation in the design of models of professional activity which are based on education experience in real conditions.

The student who specializes and is able to fulfill the obligations of the year of specialization will have his or her title and certificate accredited and will receive a certificate to working in the profession. This certificate is an indispensable requisite to be able to continue working within the education system.

In case of failure during the year of specialization, the student must repeat the year and fulfill once again all requirements (those who fail twice during the specialization year may not receive a teaching certificate).

**Specialization Framework**

The duration of the period of specialization is the school year, and no less than six months of work in the same year. This is required in order to conserve the social rights of the beginning teacher, and makes it possible to count it as one year of time in service.

The responsibility of contracting at the place of employment is that of the specialization candidate, who has the right to make use of the Teachers Human Resources Office of the district within which the work is sought.

During the year of specialization, the candidate participates in a weekly Specialization workshop that takes place at the Institute. Participation in the workshop is an inseparable part of the obligations of teacher specialization. The Teacher enhancement Workshop is designed according to the technical, academic, and pedagogical needs of those who participate.

**The Master Tutor**

To aid those who are carried out a specialization to enter the profession, a master tutor accompanies the candidate during the year of specialization. This individual is a colleague from the same school. The basic role of the master tutor is to assist those who specialize with professional advice and support. Tutoring processes cover all aspects of the experience: organizational, social, professional, and academic.
THE ASSESSMENT PROCESS

During the year of specialization, the work of the individual is assessed by the Assessment Council of the school. Members include the school inspector, principal, and master tutor. The assessment is based on observation of the individual's work, a documentation report that is given by those who carry out diverse duties in the school, and through an interview that takes place with the Assessment Council. At the middle of the school year, the specializing student is assessed through a training assessment, and at the end of the year there is a final assessment. The student takes part in the assessment.

STUDY FOR OBTAINING THE TITLE, AMSTAR IN EDUCATION AND TEACHING (M.ED.)

Masters in Education and teaching - second title of the grade:

The objective of studies for obtaining the title M.ED. is a direct consequence of the professional development process of teachers. Nowadays, the placement of teachers in managerial roles is an important trend within the community of active teachers in the education system.

The plan of studies for the M.ED. is basically designed for active teachers and is directed at the practical and concrete dimension of their work. That is: making it possible for teachers to study and to research in a way related to the context of their profession and in which they wish to concentrate, assisting them in the development of observation tools and methods for their work, develop critical skills regarding their experiences, and improve their capacity to understand better and to justify their activities. The idea is to train teachers to carry out applied research that contributes toward changes within the reality in which they work: with students, the classroom, the school, the education system, and education projects. Through these processes one hopes that teachers who study for the M.ED. will improve their capacities to appreciate the achievements of their students and that teaching students will be partners in applying the new knowledge, based on the practical knowledge that they acquire during their work. The program of studies for the M.ED. provides in-service teachers with this degree mobility within the education system to occupy posts such as education counselor, school principal, or instructor.

CONDITIONS FOR ADMISSION

- A first degree of B.A. and teaching certificate or B.ED.
- Final classification for the first university title of 80 points
- 3 years of teaching experience, or in a post in the education system equivalent to a one-third teaching load during at least one year.
Recommendations from the Admission Council.
Study plans are submitted for authorization to the Higher Education Council.

REGULATION

Every university teacher training institute must necessarily publish regulations that cover rules, norms, and procedures that apply to all students. The Institute should make it known to all students what are their rights and obligations upon incorporation into the institute, and this norm should state the obligatory nature of 4 consecutive years of study and the obligation carry out a teaching specialization.

Themes to be included in the institutional regulations are:
- Conditions for entry
- Class schedule
- Obligations of students for practice and to obtain work
- Regular attendance of classes
- Practice teaching period
- Rules of conduct at the institute and its installations (in religious institutions, according to the indications of the director of religious education)
- Rules regarding examinations, assessment, grades, and passage from one year to the next (including the rights to appeal)
- Conditions for the teaching certificate.

TEACHING CERTIFICATE

EXAMS AND STUDIES

The system of study and exams utilized at teacher training institutes is an autonomous system that is established in accordance with planning and direction of the teaching council of each institution.

The system of examinations also includes the obligations which are listed below, as well as the requirements of the Higher Education Council.

- Examination in oral and written Hebrew according to the program of the institution.
- Studies and projects:
  - The purpose is to bring together various themes of study that are taught during the training period of students, including specialization subjects, education, and teacher practice.
  - Work is carried out in by individuals, by groups, and by teams within which individual contributions are indicated.
Work includes a didactic unit that contains computer applications. This unit is carried out within the framework of teaching practice and is controlled by group trained for the task. If the student does not carry out the work in this manner, the sanction shall be equal to that of not passing an exam.

- Work is carried out, examined, and assessed according to the usual criteria in university institutions, covering both oral and written aspects.

**CONDITIONS FOR OBTAINING THE TEACHING CERTIFICATE**

Students in teacher training institutes are accredited with a teaching certificate after having completed the following requirements:

- Regular participation in studies, with practice teaching, and in all activities of the institution
- Approval in intermediate and final exams, and presentation of all work required.
- Granting of a grade of at least 70 points in Hebrew, the specialization field, and practice teaching.

**CONTINUITY OF STUDIES**

Continuity in studies for the training of active teachers who request completing their pedagogical training in order to obtain a teaching certificate or who wish to broaden their academic training is different from training courses that are not degree training studies.

**GUIDELINES IN THE TEACHER TRAINING SYSTEM**

**ADAPTATION OF THE DURATION OF TRAINING TO THE NEEDS OF THE EDUCATION SYSTEM AND TO THOSE OF UNIVERSITY TRAINING**

Teacher training represents a possibility of a university education for those who perhaps do not work in teaching directly, but possibly are involved in the education system in various areas such as the development of study plans, working in cultural and sports centers, working in non-formal education, and in education support materials.

This is developed in two senses: the need for human resources in education, and the demand for university training which requires an increase in the incorporation of students in teacher training institutes.
Enrollment in teacher training institutes and seminars in the last decade has increased by 5%-6% annually.

Increase is necessary from three perspectives:
- Teaching resources required as a result of the conception of training as a professional procedure.
- Demand for university training in areas of education and teaching beyond the work of teaching per se, which coincides with the concept of teacher training as university training.
- The need to complete training on the part of in-service teachers who do not have university training.

- Increase in the number places for students for the first title of “Bachelor in Education” (B.Ed.)

The training system has not yet created a satisfactory solution for the problem of the lack of human resources for a number of groups such as: the Bedouin community, teachers in internment camps, and teachers for those with physically limitations such as auditory and visual deficiencies.

- Development of specialized teaching resources for educational support:

School and community education systems increasingly require the incorporation of professionals in support positions such as: educational counselors, information science, non-formal education specialists, specialists in communication disturbances, analysts, and didactic programmers.

The current conception considers integration in which a teacher, besides having a teaching specialty, is also a specialist in education support matters, while those who work with education support are also teachers. This represents a positive development for both occupations.

- Demand for university training in areas of education beyond that of teaching:

A significant development in the education system in Israel is the increase in the number of people who are accredited with a high school degree and the number of aspirants to a university education as a process of continuity of their development and integration into society.

The increase in university candidates in areas of education and teaching requires increases in the capacity to incorporate students into the training system. Even when not all those who enter teacher training institutions are in-service teachers, their contribution to society will be in other areas, in educational frameworks beyond the official education system, such as: working in cultural and sports centers, sport associations, physical institution institutes, educators in municipalities, and governmental dependencies.

- The need for teachers without a university degree to complete studies:

This policy of the Department of Teachers Training, applied to all age groups, caused many teachers to return to university studies in order to complete their studies for the first certificate.
IMPROVEMENT AND ADAPTATION OF TEACHER TRAINING PROCESSES FOR DEVELOPMENT OF THE EDUCATION SYSTEM

The teacher training system has the obligation to continually improve training processes, with the development of learning and teaching research, and seeing to it that teacher training processes are adequate in terms of study programs, teaching methods, new subjects, teacher profiles, etc.

The training system prepares participants according to the activity, placing emphasis on four areas:
- use of computer and information technology in training processes
- improvement of the teaching of science and technology in the training process
- Strengthening of Jewish studies in teacher training processes within the framework of public education
- Improvement of preparation for those occupying posts in education

USE OF COMPUTER AND INFORMATION TECHNOLOGY IN TRAINING PROCESSES

The development of this aspect makes possible a change in the role of teachers, from a person who provides knowledge to one who guides students and makes possible their utilization of computer and communication technology in order to foster their individual abilities according to their possibilities and interests.

The practice of future teachers on the training level, in this kind of learning (implemented at the same time with the practice of teaching with this method in schools) aids the application of these computer and communication processes and is illustrated in the following points:
- teacher development that complements advanced technologies in the area of computers and communication

IMPROVEMENT OF THE TEACHING OF SCIENCE AND TECHNOLOGY IN THE TRAINING PROCESS

The education system is faced with the incorporation of new areas of study, the most important of which is the integration between science and technology. The level of integration and teaching methods vary, according to the age group taught. With this in mind, study plans are prepared for teacher training institutes based on similar principles.

STRENGTHENING OF STUDY OF THE JEWISH CULTURAL HERITAGE IN TEACHER TRAINING PROCESSES WITHIN THE FRAMEWORK OF PUBLIC EDUCATION

This process of reinforcement focuses on two groups of students:
- Those who specialize in a subject within the discipline of Judaic Studies, who
will acquire during their training significant knowledge of the contents of Judaism general materials in the humanities.

- Students not training to teach subjects of Judaism, who will receive a detailed knowledge of subjects such as festivals and days of remembrance, the vital cycle of the Jewish man, Jewish and Israeli identity, facts about the history of modern Israel and the history of the Zionist movement and the State of Israel. Special emphasis is placed on study of the subject of “Judaism of the Diaspora”.

STRENGTHENING OF TRAINING OF TEACHERS AS EDUCATORS

With increasing problems in Israeli society, related to the questioning of its existence as a democratic and tolerant society, and with increasing violence that is also manifested within the school system, together with study problems for which solutions have not yet been found, such as civic education, it is important to place emphasis in these areas in the training of students as teachers and educators.

The difficulty in treating these very important areas, which are not accomplished through theoretical learning, requires preparing a training system in which it is possible to propose models to treat these themes and to produce material that aids in the training of teachers throughout the education system. Guidelines for the development of preparing teachers to be educators are:

- Development of training methods and study plans to face social problems such as “violence” and themes such as “the characteristics of a pluri-cultural society, roads to social and political commitment, civic and democratic instruction.
- Development of training methods, learning and teaching of the historical development of Judaism, such as studies of the holocaust – Shoá – including visits, the study of “Judaism of the Diaspora”, and study of the Arab-Israeli conflict.

BROADENING AND DEEPENING OF UNIVERSITY TRAINING PROCESSES

The change of the teacher training process to university training is one that has extended over decades and is manifested in the strengthening of its essential concepts and in the action required for its establishment.

The principal objective is to institute abilities and methods of university thought in teaching abilities and to transform teaching into a profession in which teachers are university-trained.

The profile of the “university-trained” teacher should be shown in three aspects of his or her training. These are:

- The training of a “an autonomous and reflective professional teacher” who works
through his or her career according to a system of criteria and reflective thought regarding the profession. A teacher who uses and creates knowledge, applying it incorporating advanced computer-based, communication, and multi-media technologies. Finally, such training seeks to produce a teacher who develops autonomous and independent students in a world of knowledge in which the teacher serves as guide.

- Training of a "specialized professional teacher" in his or her area of teaching who has a mastery of a professional field of knowledge and of its co-related materials, with a recognition of the speed of change;
- a teacher who knows how to use tools in order to generate knowledge in his or her specialized field, and who is able to delve deeply into particular areas of knowledge and to remain up to date in them throughout his or her professional life, and apply them as an intelligent consumer and simultaneously be able to contribute through personal experience;
- a teacher who can apply available assessment and information control methods, and use them educating students so they are able to assess and to control this universe of documents;
- a teacher who is aware of the diversity of students and trained to be able to respond to the needs that result from this diversity.

The process of solidifying the concept of a teacher "with university training" throughout his or her professional career has resulted in a structure of university training made up of university-level teacher training institutions. Policy dictates that every teacher shall be a university graduate. Therefore, teacher training and all teacher training institutions shall be on the university level.

THE DEPARTMENT OF TEACHER TRAINING AND GUIDANCE

PURPOSE OF THE DEPARTMENT

The Department of Teacher Training and Guidance assists in on-going teacher training. The special purpose of the Department is to improve teaching performance through a training and guidance cycle that operates throughout a teacher's career.

The major areas of the Department are:
- Promotion, planning, organization and activation of training cycles for teachers according to their needs and the requirements of the system.
- Support, guidance, and aid to teachers for progress in their academic and professional careers.
- Administrative and pedagogical assistance in instituting a cycle of institutional training for the development of teaching staffs for schools.
- Stimulus and orientation for teachers for their training through the issuance of training certificates.
CENTER FOR THE DEVELOPMENT OF MANAGERIAL-LEVEL TEACHERS

FUNCTIONS OF THE CENTER

The Center for the Development of Managerial-Level Teachers is responsible for the professional development of school principals, school inspectors and equivalent posts, and for managerial teams of regional pedagogical units of the education system.

The Center is charged with designing the outlines of policies of the Ministry of Education in this area and with fostering its functioning, both in the area of pre-service professional development, or during in-service activity.

The objective is to optimize these functions with on-going training for the work of managerial level teachers within the framework of continuous training as part of professional activity.

For more than 30 years within the institution, the Center has organized thousands of training courses and activities of different kinds for managerial-level teachers, and school managerial teams.

THE OLDEST CENTRAL UNIT OF THE CENTER IS THE EMANUEL YAFFE MEMORIAL SCHOOL FOR MANAGERIAL-LEVEL TEACHERS, FOUNDED IN 1968.

This institute is a direct instrument for training educators within the Center. It is located in Jerusalem, and receives and houses some 1,500 participants per year, who are involved in various activities.

The Center, through its School Principal Training Unit, is responsible for the development and functioning of some fifteen university-level training courses for school principals, which function within universities and institutes. It organizes a national network of institutions that carry out training for school principals, and functions as a specialist organization in workshops for school principals offered in regional teaching centers.

SCHOOL FOR MANAGERIAL-LEVEL EDUCATORS

INFORMATION

- During the 2001 school year, the School for Managerial-Level Educators carried out 100 in-house courses of 2 to 6 days duration.
- More than one-half of these courses were for groups of active school principals.
- One-fourth were at the invitation of the district unit of the Ministry of Education and were for school principals. Another one-fourth was for school inspectors and teams of pedagogical units (departments, districts, and others).
The school offers longer courses, consisting of hundreds of hours, for three types of participants:
- Courses for new principals of primary schools
- Training and development courses for new full-time inspectors
- Courses for new directors of municipal departments of education.

The permanent teaching staff is assisted by outside professionals and functions within the framework of the teaching team of each school, with five working groups:
- Primary school team
- Secondary school team
- Education process team
- School environment team
- Inspection and direction team

In all of its activities, the School is concerned with the professional development of the managerial-level educator. One of these activities deals with changing content that are analyzed for the following activities: understanding one’s role; personal development in carry out one’s function, and required abilities.

The various courses are planned in conjunction with the participants and are adapted to the specific needs of each particular group.

The School responds to the immediate needs of managerial-level teachers and of the Ministry of Education. During the 2000 school year, these needs included “self-management”, the “school activities plan” in the intermediate cycle, and the “Jumash” program in Arab and Druze education.

Together with its main activity, the school for managerial-level teachers organizes special activities such as: the management of “study houses” – Beit Midrash- of “yeshivot” directors, secondary schools of the religious education network, systematic activity with the “Amal” network, and others.

GUIDELINES

The School works with a group of approximately 4,000 school principals and school inspectors, of whom it is estimated that each one attends the school once every 2 ½ years on the average. This situation makes it possible to plan on-going professional development activities.

The major professional training activity of the school consists of developing school principals and school inspectors as educational leaders who foster educational concepts around changing themes.

The activities of the school establish the bases for pursuit of the objectives of public education and seek to strengthen independent and critical thinking through a commitment to values and culture.
The School enhances the activities of in-service courses of several years duration and the professional development of pedagogical teams in and outside the Ministry of Education.

The School serves all age groups, districts, and communities, giving preference to out-lying areas.

The planning of activities is based, when possible, on the collaboration of those who are in training and in locating their specific needs.

**Training School Principals**

Within the last decades, a consensus and awareness has developed in all education systems that school management is a special professional area. School principals are not only outstanding, experienced teachers who head a group of teachers. They also include principals who find themselves heading institutions called "schools". The recognition that this is a special profession created awareness that there are themes in which the individual should be trained before taking on his or her responsibilities.

The training of school principals in Israel began with two experimental courses offered during the beginning of the 1970s in the School for Managerial-Level Educators in Jerusalem. These were extended courses (1,300 hours) which brimming with practical experiences, and with participants who received full pay as teachers during the course.

The courses were administered exclusively at universities. The plans were established in common agreement with the Unit. The Unit selects training candidates, with the collaboration of schools and districts. The plan of studies includes theory of education administration, putting an education vision in place, study of education management skills, and practical experience.

During the 2002 school year, 246 participants were admitted among 500 candidates. Studies were carried out at the "Tel-Jai" Institute, the "Emek Hayarden" Institute in "Oranim", at Haifa University, the "Gordon" Institute in Haifa, in the "Beit-Berl" Institute at the University of Tel-Aviv, at Bar-Ilan University, at the "Bait-Vagan" Institute in Jerusalem, and at the "Ajavir" Institute. In the year 2000, training was carried out at the "Hakibuzim Seminar" Institute, in the David Yelin Institute in Jerusalem, in "Beit-Rivka" in Kfar-Jabad, in "Beit Yaacov" in Tel Aviv, in the Kay Institute in Beer Sheva, at Ben Gurion University, and at the Szold Institute in Jerusalem.

Other training is carried out by the "Tzevet" program for Beit-Berl officials within the framework of masters level studies at the Hebrew University of Jerusalem.

Minimum conditions for admission are, among others, a first university degree,
a teaching certificate, and five years of teaching experience. Candidates are interviewed by an admissions committee and are generally examined by the assessment center. Studies are the same for those from primary and from secondary schools. Upon completion, participants receive a certificate from the Ministry of Education and from the training institution.

DEVELOPMENT OF SCHOOL PRINCIPALS

Within the last decade, a number of in-service activities have been developed for the professional development of school principals. This is in addition to the main activity and many years experience of the School for Managerial-Level Educators in Jerusalem. The activity takes place in different schools, universities, institutes, regional teaching centers, etc. The activities are varied in content, dimensions, and working modes.

- The “Planning Unit for Training and Professional Development of School Principals” also serves as a governing unit of the Ministry of Education in this phase. The Unit serves different schools, making possible joint agreements, relations, and analysis among them.