

Policies and Systems for the Assessment of Education

Achievements and Challenges



Country Report for the 6th Ministerial Meeting
Mexico, february 13-15, 2006



Instituto Nacional para la
Evaluación de la Educación

POLICIES AND SYSTEMS FOR THE ASSESSMENT OF EDUCATION

ACHIEVEMENTS AND CHALLENGES

Country Report for the 6th Ministerial Meeting

Mexico, february 13-15, 2006

POLICIES AND SYSTEMS FOR THE ASSESSMENT OF EDUCATION

POLÍTICAS Y SISTEMAS DE EVALUACIÓN EDUCATIVA EN MÉXICO. AVANCES, LOGROS Y DESAFÍOS

Autores:

Mtro. Israel Banegas González
Mtro. Emilio Blanco Bosco

Coordinación editorial:

Miguel Á. Aguilar R.
Omar Torreblanca Navarro
Diana Luz Flores Vázquez

Diseño y formación:

Juan Cristóbal Ramírez Peraza
Luis Enrique Ramírez Juárez

Corrección de estilo:

Martha Donís Galindo

INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN

José Ma. Velasco 101, Col. San José Insurgentes, Delegación Benito Juárez, C.P.03900,
México, D.F.

Primera Edición 2005

El contenido, la presentación y disposición en conjunto y de cada página de esta obra son propiedad del editor. Queda prohibida su reproducción parcial o total por cualquier sistema mecánico, electrónico u otro, sin autorización escrita.

Impreso en México

ISBN 968-5924-09-0

Table of Contents

| | |
|--|----|
| Foreword | 7 |
| 0.Introduction | 9 |
| I.The country & its education system characterization | 13 |
| II.Objectives of the education system in Mexico | 19 |
| III.Current policies and systems of educational assessment | 23 |
| IV.The disclosure of assessment results and its uses | 45 |
| V. Education assessment in Mexico: positive aspects and challenges | 55 |
| VI.Future plans and recommendations | 65 |
| Final comments | 70 |
| References | 71 |
| Acronyms of institutions, programs and concepts | 77 |
| Annex I | 79 |
| Annex II documents | 93 |

Foreword

There are few doubts concerning the relevance of education in any country, both regarding the economic advancement and the improvement of competitiveness, but also social cohesion and the richness of civic and cultural life.

From this point of view, assessment becomes each day more important for educational systems as a crucial element to all efforts for improvement. This trend can also be seen in the increasing production of international evaluation projects, as those carried out by the International Association for the Assessment of Educational Achievement – the TIMSS, for instance – and the Programme for International Student Assessment (PISA) of the Organization for Economic Cooperation and Development.

Therefore, as host to the 6th Ministerial E-9 Meeting, which will bring together the nine most populated countries of the underdeveloped world, Mexico chose education assessment precisely as the central issue to be discussed.

For more than three decades, Mexico has developed various initiatives to assess its educational system. In this respect, during the last five years the creation of the Instituto Nacional para la Evaluación de la Educación (INEE), and the tasks to integrate the multiple assessment programs and activities into a real National System can be emphasized. The experience of participating in international projects of this field has taught us valuable lessons.

These experiences have shown the potential benefit of educational assessment, and also the need to develop it elaborately, always taking into account our situation –that of being a country with an large population, partly concentrated in big cities, but also dispersed in an extensive territory, and with a great ethnic diversity and numerous groups of society still living in poverty conditions.

The Instituto Nacional para la Evaluación de la Educación was entrusted with the task of preparing the Mexican document for the Ministerial Meeting. The INEE has collected the enriching experiences in this field, including positive and negative aspects.

With this document, Mexico expects to contribute valuable elements for the discussion to be held by the E-9 group in Monterrey. Thus, agreements allowing member countries to develop assessment policies and systems contributing to the final, common end of improving educational quality will be derived from it.

Reyes S. Tamez Guerra
Public Education Minister of Mexico

0. Introduction

Objectives & scope

This Country Report was prepared for the 6th E-9 Ministerial Review Meeting to be held in Monterrey, Mexico, on 13-15 February 2006. Its general objective is to reflect Mexico's experience in policies and systems education assessment, in accordance with the guidelines discussed in the Preparatory E-9 Expert Meeting held in Cairo, Egypt, 19-20, June 2005.

This report covers mainly basic education¹ evaluations, from the seventies to present time. Achievements in technical quality, diffusion, and periodicity of these assessment instruments are detailed.

Two types of information sources have been used to produce this Country Report: numerous public documents drafted by various institutions related to education evaluation in Mexico, and interviews and meetings with key actors in these institutions who are directly involved in the most recent education assessment experiences. A first version of this document was reviewed by a group of academic and public servant experts. Their suggestions, as well as UNESCO remarks, were incorporated in this final version².

A brief definition of education assessment

Assessment is conceived as a process that begins with the measurement of a certain variable, followed by comparing it with a previously defined reference, or benchmark, in order to make a value judgment in terms of appropriate-inappropriate, according to the distance between the result of measurement and the reference parameter. Thus, it is an activity that transcends simple measurement. It is also important to combine the measurement with pertinent and significant references. In the case of educational systems, the national educational objectives are the commonly used references for guiding the assessment.

This definition has the advantage of not limiting beforehand which aspects of education should be evaluated. Education assessment should start from a broad sco-

¹Basic education comprises: preschool (3 to 5 years), primary education [first stage of basic education] (6 years), and lower secondary education [second stage] (3 years).

²The authors wish to acknowledge the following individuals for their support and for commenting earlier versions of this report: Lic. Felipe Martínez Rizo; Mtro. Rafael Santiago Vidal Uribe; Mtro. Juan C. Palafox Pérez de Salazar; Dr. Eduardo Backhoff Escudero; Dra. Guadalupe Ruiz Cuéllar; Mtra. M^a Luz Zarázúa; Ing. Roberto Peña Reséndiz; Dr. Carlos Muñoz Izquierdo; Dra. Teresa Bracho González; Lic. Sergio Martínez Dunstan; Dr. Antonio Gago Huget; Dr. Leonel Zúñiga Molina; Dra. Sylvia Schmelkes del Valle; Lic. Ana María Aceves Estrada; Dr. José Ángel Pescador Pescador Osuna; Mtro. Guillermo Ortíz Vázquez; Mtro. Andrés Magaña Moreno; Montserrat Bataller Sala.

pe quality criterion as to encompass all the significant characteristics of the education system: administration and management, programs and policies, resources and efficiency, teachers' training, access and permanence of students, skills and knowledge learned in school, education impact on the individual and society, etc.

Multiple approaches are needed in order to cover the complexities of the issues to be evaluated. Therefore, evaluation should not rely solely on one type of methodology. A valuable evaluation of the education system should resort to a micro and a macro approach, to qualitative and quantitative techniques, and to census and sample information collection.

Finally, this proposed definition pretends to cover various evaluation objectives. For example: diagnostic reports, design of policies and programs, allocation of resources, accountability, feedback to schools, teachers, and students, pass/fail decisions, etc.

E-9 countries and assesment of Education

E-9 countries share common features and challenges. Substantial remote population and high poverty incidence particularly represent the most important challenges to overcome in order to obtain equality and quality in education. Furthermore, high desertion and repetition rates persist due partly to socioeconomic reasons and multiculturalism in these countries makes it necessary to offer an education meeting the needs and vision of certain groups.

These situations imply that the E-9 countries face quite different education challenges from those of developed countries. They must, for instance, universalize access to education and to curb desertion by increasing the quality education supply; to reduce social inequalities through compensatory programs transcending the education sphere; to improve effectiveness and efficiency of the education system management; to satisfy the culturally diverse groups education demand; and to strengthen the capabilities of local actors to demand quality education services.

Therefore, it is necessary to envision the development of evaluation systems relevant to our circumstances and which will generate the information needed to face our current challenges. Firstly, the education system complexity should foster the participation of multiple actors in a decentralized matter. Secondly, the great size of our education systems implies the use not only of costly census information collection, but of robust sample collection methods which should be designed once in a while. Thirdly, an education evaluation should be guided by wide criteria not exclusively limited to student achievement. Trajectories and school processes, education system management, and the impact of education in society should also be considered. Finally, the benchmarks used in evaluation should take into account the socioeconomic and cultural diversity of the system. In countries as the E-9, it is essential to evaluate the impacts and processes of education programs oriented to the most vulnerable students.

Education assessment in Mexico

In Mexico, the development of a sound assessment system is a long run, complex process. The great population volume in school ages, the remote populations, the profound socioeconomic, cultural and demographic inequalities, have conditioned the development of a heterogeneous, multi-program, multi-modal educational system. These characteristics make it unfeasible to implement a centralized education system or a system guided by restricted quality criteria. Education assessment in Mexico has progressively assumed a differentiated and a relatively decentralized structure, though not completely articulated.

Therefore, drafting a synthesis of the education assessment experiences in Mexico is a complex and, naturally, a selective task. In this report, education system diagnostic evaluations are more thoroughly covered than knowledge and competencies certification evaluations. Some also valuable experiences were not included due to space constraints, in particular, specific state level assessment experiences. Lastly, due to its complexity and diversity, it was not possible to present in this report a thorough revision of the education assessment system in tertiary education.

Chapters overview

The first two chapters summarize a characterization of the Mexican education system, its historic development and its current objectives. The emphasis is on the operational complexity of the system, the multiple services it offers, and its relatively decentralized character. The formal objectives of Mexican education are its wide scope and humanist character. The development of curricula competencies, critical analysis, in respect to diversity, the fostering of democratic attitudes and the attainment of life skills can be particularly underscored.

The third chapter deals with the main characteristics of the national and international education assessment –student achievement, and school and teacher experiences in Mexico. The progressive development of a time comparable national system of indicators permitting the creation of various diagnostic reports of the education system should be emphasized. Among these indicators, the student achievement evaluation is the one that shows the most advanced development. Nevertheless, teacher and school evaluation have shown some progress through very interesting self-evaluation experiences. Because of its innovative characteristics or rigorous methodology, this report underlines experiences which can contribute to improvement of assessment systems in E-9 countries.

Chapter four details the current spreading and use of assessment results in Mexico. Even though a consensus exists about the importance of making the results available to all interested actors, communication of results does not always reach all parties, and not always has the expected outcomes. In particular, there is a lack of institutional mechanisms for assessment results spreading, to help as a feedback to schools and as an accountability tool. Nevertheless, there is a group of positive experiences that can be useful to illustrate how to optimize the use and diffusion of assessment results.

Chapter five is a critical evaluation of current Mexican education assessment system. In its first section, the main deficiencies, in terms of scope, quality, articulation, diffusion, and uses of results are covered. It is important to recognize and share these opportunities for improvement with other E-9 countries in order to find common solutions. The second section of the chapter discusses past omissions in international evaluations where Mexico participated, and finally, the chapter discusses the positive outcomes and achievements.

Chapter six offers a collection of recommendations that could be useful to improve education assessment systems in E-9 countries. Some topics covered are: the inclusion of more themes and academic areas, the technical quality improvement of assessment instruments, better coordination, technical training, and the diffusing results.

The National Institute for Educational Evaluation (INEE),wants to express its deep gratitude to UNESCO for the special grant that made possible the production of this document.

Felipe Martínez Rizo
Director General
INEE /México

I. The country & its education system characterization

I.1 General Characteristics of Mexico

I.1.1 Basic Demographic Data

The United Mexican States is a federation composed of 32 federal sub-national entities (states). Its total area in square km is 1,964,375, of which 1,959,248 km² are continental surfaces and 5,127 km² are insular surfaces (INEGI 2004: 49). Its total population, according to the National Population Council (CONAPO), is estimated at 106,151,679 inhabitants in 2005. The population distribution shows that, in 2000³, nearly one third of the inhabitants fell within the 0-14 age group. (INEGI 2004: 83).

The relatively young age of the Mexican population presents a challenge for the educational system –about 20% of the Mexican population was, in 2000, at the age for basic education (5-14 years)⁴. Even so, figures indicate that this tendency is changing: the population pyramid is beginning to widen at midpoint; as a result, the demand for basic education is stabilizing, while the demand for middle and higher education is increasing (INEE 2003: 34). This situation represents a first challenge for the national education system.

There is a strong heterogeneity in the population distribution among the 32 states. This implies different starting conditions for the supply of education services. The school age population of Mexico State is of approximately 4 million students, while for the state of South Baja California this figure is almost of 130,000 students. These numbers should be taken into account in order to understand that each State faces different conditions and education services needs.

The XII General Census of Population and Housing in 2000 (*XII Censo General de Población y Vivienda*) showed, in relation to the population distribution according to its locality, that 74.6% of the national population dwells in urban settings, while 25.4% of the population lives in rural areas⁵ (INEGI 2004: 76). On the other hand, even though the proportion of the rural population is decreasing in comparison to the urban, the number of small localities is increasing, and this scattering of the population hinders the provision of education services (INEE 2003: 32).

I.1.2 Economic Data

The total GNP of Mexico in 2003 amounted to 483,645 million dollars at constant prices of 1995 (CEPAL 2005: 195). For the same year, the GNP per capita amounted

³ Since the last census in Mexico was taken in 2000, many of the indicators shown are related to that year.

⁴ Table 1 of Annex I displays the population according to age groups.

⁵ Towns (or localities) having less than 2,500 inhabitants.

to 4,681.9 dollars, also at constant prices of 1995. Services, whether basic, financial, personal, social or community, make up the bulk of the current GNP (nearly 70% of the total)⁶.

The income distribution in Mexico is characterized by considerable levels of inequality. Gini coefficient was estimated, in 2002, at 0.4541, according to figures of the *Instituto Nacional de Estadística, Geografía e Informática* (INEGI), showing a slight improvement with respect to 2000 (INEGI 2002). These figures represent a third challenge for the Mexican educational system, bearing in mind the great diversity of social and economical situations it has to face.

A fourth challenge to be faced by the Mexican education system is the various productive structures among states and regions. Some areas in the country concentrate most of the economic growth, and receive most of the industrial and services investment. On the other hand, in some areas of the country it is still possible to find a stagnant agricultural production only for consumption. These differences affect the education system functioning. Access to basic education services shows different degrees across the territory.

1.1.3 The Population and the Educational System

The illiteracy rate is one of the basic indicators used to evaluate the performance of educational systems in the region. In Mexico, according to the INEGI (INEGI 2000), this indicator amounted in 2002 to 9.5% of the population over fifteen. As can be expected, it is much higher in the older strata of the population. A substantial disparity among the states is evident: in the capital of the country, the rate being of 2.9%, whereas in the state of Chiapas it amounts to 22.9%.

By 2000, the average schooling in years for the population was 7.9. Here also there are great differences among the states: in the capital, such average is 10 years, whereas in the state of Chiapas the average schooling in years is 5.6 (INEE 2004: 138).

Another basic indicator is the percentage of the population between 15 and 64 years with at least middle education. Such indicator was 21.8% in 2000, and showed important differences among states (INEE 2004: 138).

The percentage of the population between 15 and 64 with at least higher education was 11.7 % in 2000 (INEE 2004: 138). This figure amounts to 15%, considering the population between 24 and 64 (INEE 2004: 139).

The marked multiculturalism of the population in Mexico has historically represented one of the greatest challenges for the educational system. Currently, the percentage of indigenous population is estimated at 10% or more of the total population, depending on the standards used. This segment of the population is composed of 62 ethnic and linguistic groups⁷, each with its own culture and customs. This has led to the establishment of indigenous education for the elementary school level, which differs from the general elementary education program. In 2002, the total indigenous population in school age amounted to 2,745,000 persons.

⁶ Table 2 of Annex I includes the percentages of these services and a definition of each.

⁷ Table 3 of Annex I details the population that speaks the main languages of Mexico and percentages

I.2 The Mexican Education System

I.2.1 Current Situation

The Mexican educational system is extremely large⁸ and complex⁹. In current school cycle there are almost 32 million students in the system, of which about 25 million are in basic education. The geographical characteristics of the country, the dispersion of an important part of the population throughout the territory, the multiculturalism, and the changes in the economic insertion of the country have implied that the Mexican educational system has been led to extensively diversify its education offer. Furthermore, since 1993, basic mandatory education includes: preschool, elementary, and secondary education (LGE 1993: Article 37), which entails a great effort to be able to comply with this mandate throughout the national territory.

Other essential aspect of the Mexican educational system is its “federalization”. It started in 1992 with the “*Modernization of Basic and Normal Education Resolution*” (ANMEB by its acronym in Spanish), and stated in the 1993 General Education Law (*Ley General de Educación, LGE*)¹⁰. Basically, the “federalization” of the system entailed the transfer of education services from the Federation to the particular States. This transfer involved the restructuring of education management at the national and sub-national level, and the redefinition of national and state responsibilities, even though these changes did not mean a radical decentralization of services. Although States have more freedom to manage their education services, the overall responsibility of unity in the education services is still a Federal prerogative. The Education Ministry (*Secretaría de Educación Pública, SEP*) maintains the authority to design the curricula and school characteristics, the manufacture of public text books. Besides, it contributes with funds to the States and compensates disparities among them.

The current structure of the Mexican educational system is composed of: a) **basic education**, which includes: one preschool grade for five year-old children, six grades of elementary education (1st to 6th grade), and three grades of secondary education (7th to 9th grade); b) **middle education**, which comprises three education grades (10th to 12th grade); c) **higher education**, the grades of which may vary according to the kind of studies: technical, undergraduate or graduate (INEE 2003: 29).

This educational offer can be accomplished in a twofold manner: academic instruction (within a formal classroom) and a “semi-academic” —alternative curricula— instruction (such as distance education). *Academic instruction* corresponds to the structure mentioned in the paragraph above, but within it, there are different types of services. For preschool and elementary school, there is general, indigenous, and community education. Community education includes courses coordinated by the *Consejo Nacional de Fomento Educativo* (CONAFE). Besides the “general” secondary schools, there are also technical schools, schools for workers,

⁸ Table 4 of Annex I includes information on total numbers of schools, teachers, and students in every level during the 2003-2004 school year.

⁹ Tables 5 and 6 of Annex I include the Mexican educational system and services.

¹⁰ The most relevant passages of both legal instruments can be found in annex II.

and *telesecundarias*¹¹. Middle education includes high schools and technical high schools, such as those of the *Colegio Nacional de Educación Profesional* (CONALEP). Higher education is differentiated by the category of its degree —advanced technical studies, undergraduate and graduate studies. Semi-academic education encompasses initial, special, semi-academic, and adult education, and different types of courses for job training (INEE 2003: 27).

It is evident that the Mexican educational system is extremely large and must face difficult geographical and demographic conditions. Over time, this has implicated a great effort to expand and diversify services in order to fulfill the goal of providing basic education for all citizens while modifying it to suit local necessities and characteristics.

In spite of these obstacles, the net enrolment rates for elementary school, during the 2003 – 2004 school year, was 98.6%. For secondary, the results, during the same school year, show a 72.1% net rate¹² (INEE 2004: 150). The survival rate at the end of 5th grade of elementary school reached 90.5%, in 2000 (Global Monitoring Report 2005: 305).

The extent of Mexico's effort to accomplish general enrolment in basic education becomes apparent when one follows the development of public expenditure on education. Such expenditure has been gradually increased since the implementation of the *Acuerdo Nacional para la Modernización de la Educación Básica* (ANMEB), as a result of federal and state authorities commitment (SEP 1992)¹³.

1.2.2 Brief History of the Mexican Educational System

The history of the educational system in Mexico is the history of a remarkable endeavor to attain extensive school enrolment and far-reaching equity in education, if one bears in mind the geography in the country, the territorial dispersion of its inhabitants, and its high and varied levels of poverty, and its intense and varied cultural segmentation, since its inception as a national State.

Throughout the 20th century the main objective of the education system was the literacy expansion to all society, which in turn entailed universalization of basic education. Only until 1921 did the Education Ministry (*Secretaría de Educación Pública*, SEP) assume the responsibility to manage the construction of schools and teachers' training. Besides this, other obstacles linked to the country's characteristics (the ethnic, political, economic, and geographical isolation, dispersion, and diversity) can feature the first half of the century as a centralized involvement of the State in educational matters (Arnaut 1998: 245).

The consolidation of this centralized educational system in the 30's corresponds to

¹¹ This secondary education variety was first implemented in 1968 with the purpose of reaching poor distant rural localities. Its main characteristic is the use of TV technology to transmit different subjects (supervised television instruction). In the 2004-2005 school cycle 1.2 million students attended this variety (22% of the secondary school population).

¹² In Table 7 of Annex I these indicators are presented next to those of withdrawal from school and final efficiency for the 2002 – 2003 and 2003 – 2004 school years.

¹³ Tables 8 and 9 of the Annex I give the variation between public and private spending on education, and the spending per student for the years 1980 to 2004.

the attempt to extensive coverage, and to the need to respond to the differences on educational issues between the states and the municipalities by means of great political, logistic and economic efforts on the part of the federal government.

These actions gave rise to some significant advancement in the reduction of illiteracy, elementary level coverage, and better access to other higher education levels. Nonetheless, persistent historic issues, such as attention to cultural diversity, unequal access opportunities, and quality, became more pressing as Mexico reached the second half of the 20th century. The centralized education structure also brought higher management costs, the disarticulation of the different education actors, and ambiguity in their responsibilities.

Well into the second half of the 20th century, the need to advance towards decentralization of the educational system became evident, due to social and political changes taking place in the country. The first attempts to change the centralized system were developed by the Education Ministry, SEP, in 1958. Owing to what has been called the “four transitions” of the country —demographic, economic, political, and social (SEP 2001, INEE 2003)—, the need to federalize public education has become clear, so as to improve the quality, efficiency, and equity of education (SEP 2001: 16), and develop models for social participation in accordance with the recent deepening of democracy (SEP 2001: 37 and 38).

In order to achieve these objectives and consolidate what had already been achieved (high national rates of coverage and schooling), in 1992 a process commenced to profoundly reform the educational system, in relation to basic education and teachers’ training college. The basis for this process is the general agreement reached between the federal and state governments and the National Union of Education Workers, *Sindicato Nacional de Trabajadores de la Educación* (SNTE), which was made explicit in the 1992 *Acuerdo Nacional para la Modernización de la Educación Básica* (ANMEB), and the 1993 *Ley General de Educación* (LGE).

The main guidelines of the ANMEB refer to the *federalization* (decentralization) of the system. The central measure in this process has been the transference of the educational services from the scope of the federal (central) government to that of state governments. Currently, each state is responsible for the negotiation and administration of educational services within its territory. However, the SEP maintains the federal authority to design instruction programs and instruction characteristics, and the making of text books, together with the responsibility to contribute resources to the states and to compensate for the inequality among them, as was already pointed out.

Other innovations included in the ANMEB are: the establishment *Consejos Escolares de Participación Social*, at federal, state, municipal, and school levels; the revision of materials for education and their contents; the reappraisal of teaching as a profession in its formative stage and in its professional salary scale, and by means of the *Carrera Magisterial* program (SEP 1992). The ANMEB has been upheld as a State policy since its ratification, in 1992 (Latapí 2004, Latapí 2004b).

This process has entailed great challenges, since decentralization implicates the development, by the states, of capacities for administrating and evaluating in this new situation.

II Objectives of the education system in Mexico

II.1 General Objectives of Mexican Education

II.1.1 Objectives of Education Stated in the Mexican Constitution

Article 3 of the Political Constitution of the United Mexican States declares the general objectives of the educational system in the country¹⁴. One of the first objectives is the universality of basic education. This right shall be attended by the State in a gratuitous and secular manner. Another objective is to grant higher education gratuitously as a means of supporting scientific and technological research, and propagating national culture. With regard to the formative aspect, the general objectives stated in the Constitution refer to the harmonious development of the human being's faculties, to the fostering of patriotism, and international solidarity, together with the promotion of the values of independence and justice.

Education should be oriented not only towards achieving scientific progress, but also towards the furtherance of democratic and national values, and better human relationships. It should be based on the ideals of fraternity and equality among men, thus avoiding special privileges for races, religions, gender, or individuals.

II.1.2 The Education General Law, (*Ley General de Educación*)

The *Ley General de Educación* (LGE), passed in 1993, resumes the objectives for education decreed in the Mexican Constitution, and at the same time specifies new goals. These goals are: 1) the acquisition of knowledge by students, and the development of their capacity for observation, analysis, and critical thinking; 2) the promotion of awareness, knowledge, and appraisal of the particular traditions and cultures to the various regions of the country; 3) the recognition of the very many languages spoken in the nation, and the acknowledgment of indigenous peoples' right to speak their languages¹⁵; 4) the fostering of attitudes leading to scientific and technological research and innovation; 5) the encouragement to artistic creation and the acquisition, enrichment, and diffusion of universal culture richness and values; 5) the promotion of physical education and sports; 6) in consideration of human liberty and dignity, the development of responsibility towards the preservation of health and towards parenting and family planning, as well as for the rejection of vices; 7) the ac-

¹⁴ The whole text of article 3 in the Mexican Constitution may be consulted in Annex II.

¹⁵ As to this right, the section IV of article 7 of the LGE establishes that the speakers of indigenous languages will have access to mandatory education in their own language and in Spanish ("Los hablantes de lenguas indígenas tendrán acceso a la educación obligatoria en su propia lengua y español.").

quisition of basic concepts and principles of environmental science and sustainable development to enable students to appreciate and protect the environment; 8) the fostering of positive attitudes regarding work, saving, and general well-being¹⁶ (LGE 1993: article 7).

The LGE also establishes equity as the central objective of education. To progress in this direction, priority is given to, and compensatory programs are developed for the states and regions with the highest rates of education backwardness or with disadvantageous social and economic conditions. As for the education system management, the LGE ratifies the agreements on its administration associated with the decentralizing process setup by the ANMEB.

Through the regulation of the LGE, social participation in education will be developed not only to strengthen and raise the quality of public education, and increase its coverage as well, but also to make schools and the school community work in closer collaboration.

For the purposes of this report, it is necessary to stress what the LGE states in regard to system education assessment. (LGE 1993: chapter II, section 4) In this legal instrument it states that the Education Ministry (SEP) has the prerogative to assessing, in spite of the assessment done by states education ministries. All national and sub-national assessments should be systematic and permanent, and their results should be used by authorities for decision making. It also states that educational institutions shall collaborate in this task by promptly submitting the necessary information and assisting in the processes of evaluation. Finally, it should be mentioned that education authorities should share evaluation results with teachers, students, parents, and society as a whole, with the aim of showing each state development and achievements in education.

II.2 The Education Objectives of the Current Government

II.2.1 The National Education Program (*Programa Nacional de Educación 2001 – 2006*)

The current National Education Program specifies each of the education goals outlined above. This program also incorporates some changes which entail new objectives and a new overall comprehension of the education system, specifically in matters of management, assessment, and system transparency.

Three strategic objectives define the Program: a) education justice and equality, b) quality in education processes and results, c) administrative and institutional reforms. These objectives unfold into different subprograms for each segment in the education system, including various general policies, specific objectives, and action plans for definite goals.

The objectives proposed in the program for basic education are:

1. Education justice and equality. The right to education shall be guaranteed by actual, equal opportunities of access, permanency, and education achievement for

¹⁶ To consult articles 7 and 8 of the Ley General de Educación, see Annex II.

all children and youths in the country (SEP 2001: 130). Culturally and socially vulnerable groups should be specially considered by allocating resources to compensate their disadvantages, as well as designing flexible education varieties.

2. Quality in education processes and results. All children and youths in basic education will be guaranteed in the acquisition of knowledge, abilities, values, and necessary attitudes for their optimal performance as family members, citizens, and workers. (SEP 2001: 137). It is therefore imperative to adequate curricula and pedagogic practices to transform education management practices into more engaging and participatory courses of action, betterment of materials and resources, and improvement of teacher training and participation.

3. Administrative, institutional reforms. In order to assure the system functioning effectiveness, the continuity of assessment, as well as the efficiency and transparency of the resources used, the system will be reformed. (SEP 2001: 153) This implies the strengthening of decentralization efforts, the extension of basic education actors responsibilities, and social participation promotion. Also, it implies the promotion of the system continuous assessment, and its accountability to society.

II.2.2 The Administration and Assessment of the Education System: New Accents

The national education program addresses one of its three parts to expound the objectives and policies intended to improve the administration, assessment and transparency of the system so as to ultimately attain equity and quality of education¹⁷. In face of the geographical and social segmentation of the country, the educational authorities have understood the need to further the improvement of education processes and results by means of reforming the system administration and assessment.

The administrative reform consists of five specific objectives which are aimed at raising the quality and improving the system transparency and assessment. These objectives are:

1. Collaboration to consolidate the National Education System (*Sistema Educativo Nacional*). It calls for the strengthening of federalism, which in turn implies that the institutional structure of the SEP must fit to it.

2. Increase of funds assigned to education, improvement of their distribution, and implementation of mechanisms to ensure their ever efficient and transparent use.

3. Improvement of mechanisms among authorities for the coordination, consultation, and social participation associated with education, specialists in the field of education, and society as a whole.

4. Legal education framework updating, in order to become a solid, complete and functional platform for operating a national education system of equality and quality.

5. This last strategic objective makes direct reference to system assessment. The program will fortify education system management through assessment system

¹⁷ The document emphasizes quality as an element for equity in education (SEP 2001: 42). In regard to this matter, Annex II includes a section of the Programa Nacional de Educación.

consolidation, encouragement of research and innovation in education, renovation of information and indicators systems, and ideas renewal on school administration (SEP 2001: 91 to 101).

In order to achieve the last strategic objective above mentioned, which makes direct reference to the system assessment, 5 specific goals were defined:

a) National System of Education Assessment consolidation. Its aim is to guarantee the systematic, broad and coordinated efforts of all the different actors involved in education assessment (p.16). Specific measures include: the creation of the National Institute for the Evaluation of Education (INEE by its acronym in Spanish), mainly responsible for assessing basic education (p.22); the proposal to create an organism for assessing upper secondary education; the creation of various organisms for the assessment of tertiary education; and the establishment of criteria for ensuring evaluation results quality and adequate diffusion.

b) The fostering of research and innovation in education. The importance of compiling and sharing and innovative practices results, as well as promoting the continuous dialogue between academicians and policy decision makers, is emphasized.

c) The promotion of a planning program and project evaluation culture. The main objective of the program is to shift the perception of assessment as a "supervision" mechanism to assessment as an organizational and individual learning tool.

d) The development of a National System of Education Indicators. Its objective is to generate new education indicators to be included in the existing ones, in the light of the new circumstances existing in the country. It is conceived as an element for producing and articulating information in the whole education system (student achievement, teachers, principals, schools, resources, etc.). It will have great relevance in education policy planning, and in facilitating education reforms proposals by education actors. (this system is described in detail in section 3.4)

e) The formation of a National Education Information System. This element is of great strategic importance for the program, because it is centered in providing reliable, broad, and relevant information for policy decision makers and for accountability in all of the education system levels. The main aspects to be covered will be student achievements, teacher and school evaluations, and states and institutions assessment. For this to work it is crucial to encourage a better coordination among the different institutions in charge of education assessment and the spreading of assessment results.

III. Current policies and systems of educational assessment

General Overview

Policies for assessing education in Mexico have a short history —not longer than four decades. But systematization, inclusion in the national system, and efforts to disclose the results of initiatives are in fact current —they were strengthened in the last decade.

Such development can be divided into three main periods:

1) The first period includes the decades of the seventies and eighties. In the early seventies, the Secretaría de Educación Pública (SEP) began to systematically file census educational data in order to build up statistics that reflected a general view of national education. Also, in this same period of time, such government office initiated assessments of elementary education.

2) The second period includes the decade of the nineties. Several tools for assessing learning at the elementary and secondary levels were developed. Their aims were: the accreditation of educational levels; the distribution of incentives among teachers; and in a strict sense, the assessment of the quality of the learning processes. The education system process of decentralization greatly influenced this period. In this context, the National Education Assessment System (*Sistema Nacional de Evaluación de la Educación*, SNEE) was created with the purpose of coordinating all assessment initiatives, including the initiatives by the State Education Assessment Groups (*Áreas Estatales de Evaluación*, AEE)¹⁸.

The concern for developing rigorous assessment methods and the gathering of information on cultural and organizational contexts in which learning experiences are applicable were clearly reflected in this decade. The principal initiatives during this period were: **1)** The *Programa Carrera Magisterial*; **2)** the expansion and consolidation of the *Instrumento de Diagnóstico de Alumnos de Nuevo Ingreso a Secundaria* (IDANIS); **3)** the development of exams to evaluate lower and higher middle education: *Centro Nacional de Evaluación para la Educación* (CENEVAL); **4)** the creation of a system for evaluating students and schools within the framework of compensatory educational programs (CONAFE); **5)** the establishment of the *Programa Evaluación de la Educación Primaria* (EVEP); **6)** the introduction of the student assessment tests known as *Estándares Nacionales de Español y Matemáticas*.

For the first time, international tests for assessing learning were applied in Mexico: **1)** in 1995: Third International Mathematics and Sciences Survey (TIMMS, supervised by the IEA¹⁹); **2)** in 1997: *Laboratorio Latinoamericano de Evaluación de la Calidad de la*

¹⁸ AEE is the acronym in Spanish for the education assessment organisms at state level.

Educación (LLECE, supervised by the OREALC²⁰ - UNESCO); 3) in 2000: Programme for International Student Assessment (PISA, supervised by the OECD²¹). Indubitably, this precedent constituted the start of an important experience for the improvement of the existing national assessment strategies.

3) The third period started in 2001, with the current government in office. It is characterized by two important improvements in relation to the two prior stages. In the political sphere, the assessment of education is considered strategic as a fundamental element for the educational authority to plan and give out official reports (SEP 2001: 100). In the institutional sphere, a main step forward was given towards the reorganization of the evaluating departments with the opening of the National Institute for the Evaluation of Education (*Instituto Nacional para la Evaluación de la Educación*, INEE)²².

Other assessment strategies that were created during the nineties have had continuity, and have improved tools and broadened expected coverage. The SEP, specifically the *Dirección General de Planeación y Programación* (DGPPyP)²³, is in charge of periodically revealing basic statistics regarding the educational system as a whole. The IDANIS' diagnostic test and the students' exams in the teaching career are currently applicable and are under constant improvement, as well as the assessments of the CONAFE compensatory program and the tests given by the CENEVAL.

The SEP has also more assessment strategies, if one takes into account areas and programs. It is important to mention the qualitative evaluation system of the *Programa Escuelas de Calidad* (PEC)²⁴ and assessments such as the Diagnostic of Reading and Writing, and Mathematical Abilities Instrument (IDHILEM by its acronym in Spanish). Both aim to include the abilities of preschoolers —three to six year-old children.

The Education Policy Assessment System (SEPE by its acronym in Spanish), and The National Education Assessment System (SNEE by its acronym in Spanish)

In this last period, work has been done in order to consolidate the Education Policy Assessment System (*SEPE*) which will be used to supervise the National Education

¹⁹ International Association for the Assessment of Educational Achievement.

²⁰ Oficina Regional de Educación para América Latina y el Caribe.

²¹ Organization for Economic Cooperation and Development.

²² Since the INEE was founded, the aim has been to occupy the first place in the national assessment system. It is responsible for the production, supervising, and giving out the results on national tests for basic education, thus raising methodological and technical standards, and applying transparency towards the spreading of outcomes. It is also responsible for applying international examinations, for developing a national system of indicators, and for elaborating research based upon testing sources. Also, it widely divulges assessment results through various means, therefore requiring active collaboration of many institutions, like the *Áreas Estatales de Evaluación* (AAE) and other divisions of the SEP.

²³ Formerly called the Planning, Programming and Budgeting General Office (*Dirección General de Planeación, Programación y Presupuesto*, DGPPyP).

²⁴ This Program is considered one of the most important initiatives of the government in office (2001-2006), see section 3.3, in the area of basic education. Its main purpose is to improve the quality of education, by modifying material and administrative conditions of schools. The current governmental goal, by the end of the year 2006, is to include 25,000 schools in this program.

Program advancements and results. Its development has been designed to foster an evaluation culture and to make progress in an accountability culture towards society on the part of education authorities. *SEPE* construction is a long run project which implies the coordination of different institutions, the construction of indicators, and the development of assessment criteria. At the present time, this system cannot be taken as fully formed.

The conceptual framework of *SEPE* is founded in the known “Results Oriented Integral Management”, which have been sponsored by UNESCO and utilized in Latin America to manage social programs. Under this methodology, the term (a social program) “Integral Management” is understood as its process of planning, execution, and evaluation, as well as searching for feedback among stages. For this methodology to work it is necessary to have a strong articulation and collaboration between the institutional actors involved in each stage of the process, and it is necessary as well to have valid and adequately contextualized information.

Thus, with this methodology, *SEPE* conceives assessment as a dynamic process which should involve all three stages of the National Education Program development: “Planning, Execution, and Finalizing”. Planning evaluation in *SEPE* terms entails the political and institutional valuation of the program. Evaluation in the execution stage implies the constant policy supervising and the fulfillment of contracted obligations in order to take corrective measurements if necessary. Ultimately, in the “finalizing” stage, the policy is evaluated by the final period results and policy impact evaluations.

As the 2001-2006 National Education Program states, the objective of *SEPE* implies that, apart from consolidating the National Education Assessment System (*SNEE* by its acronym in Spanish), a dynamic, conceptually relevant, and technically rigorous national system of education indicators should be developed.²⁵ Two more essential aspects should be noted —evaluation in this context includes all of policies and programs stages, and that work should be done in the development of systematic tests for all the education levels in the system.

The information which *SEPE* produces should be utilized by federal and state authorities, educational system basic actors, as well as by society as a whole. It should deliver current and valid information about fulfillment of programs and policies partial and final results included in the National Education Program; it should work as a platform for exchanging points of view in the education community; and finally, it is conceived as an accountability mechanism.

The development and implementation of an articulated and efficient National Education Assessment System has been another great challenge in the past decade. It should be noted that its concretion is at an intermediate stage. In order to advance in its consolidation it is necessary to define and coordinate the responsibilities of all institutions involved (federal, state, municipal, and external institutions), and to strengthen their capabilities. The global overview to be presented in the next pages should be considered as a simplified structure for the *SNEE*, and should be interpreted having in mind the long road ahead.

²⁵ The characteristics of this education indicator system in its present form is covered in section 3.4

In table 3.1 (end of section), the SNEE should link three assessment spheres: the federal, the state, and the external evaluations. In each of the three spheres, duties and functions should be defined in accordance with the strategic vision of the system (what is to be evaluated, definition of indicators and benchmarks), the educational achievement assessment, and the school and teacher evaluations²⁶.

At present, federal and external institutions play a critical role when it comes to defining the strategic vision of evaluation, as well as to conceptualizing tests, methods, instruments, and standards. These two spheres also coordinate normatively and operatively most of the evaluations to be detailed in the following pages. State authorities, for the most part, have generally assumed a passive stance, and have limited their involvement to the recollection of information that others have designed at higher levels.

This last statement conceals the vast heterogeneity existent among the State Education Assessment Offices (*AEE* by its acronym in Spanish). Due to the different education conditions faced by states, their stance in education assessment varies in involvement, use and diffusion of evaluation results. Therefore, although a better coordination is still needed between the external institutions (for example, INEE) and the federal authorities, the essential aspect to be improved is the one concerning the participation of state authorities through their *AEE*. In the near future, states should actively participate in the creation of conceptual and technical instruments for assessment, and should as well enrich the criteria used by them so as to reflect their education situation diversity. At the same time, it is necessary for *AEE* to embark in their own assessment programs, regarding policies and programs at state level, student achievements, and system management assessment. Some states have shown considerable improvements. Nonetheless, it is essential that all states get involved in this endeavor.

In regard to basic education, the *SNEE* assumes the articulation of the activities carried out by federal organisms (for example, the newly created Education Policy Evaluation and Planning Unit, and the Under Ministries of each education level) with the state assessment offices and the *INEE*.

At the upper secondary education level, the articulation that the *SNEE* has assumed involves specific state institutions (CEPEMS) for strategic vision, the CENEVAL for achievement assessments, and a national institution will be created for the assessment of this level.

At the tertiary level, the evaluations activities are coordinated between the under ministry of tertiary education (*SES* by its acronym in Spanish), CENEVAL; CIEES and COPAES (see section 3.5). At state levels a State commission for tertiary education will be created to engage in strategic vision activities.

²⁶ International evaluations were not considered in this simplified structure.

TABLE 3.1: THE NATIONAL EDUCATION ASSESSMENT SYSTEM (SNEE)

| Levels | Federal authorities | State authorities | External institutions |
|--------------------------------|-----------------------|-------------------|---|
| Basic education | | | |
| Strategic vision | UPyEPE (DGEP) SEB | AEEs | INEE |
| Student achievement assessment | | | |
| Teacher and School assessment | | | |
| Upper Middle education | | | |
| Strategic vision | UPyEPE (DGEP) SEMS | CEPEMS | INEE, plus a new institution to be created |
| Student achievement assessment | | AEEs | INEE, CENEVAL, plus a new institution to be created |
| Teacher and School assessment | UPyEPE (DGEP) SEMS | | INEE, plus a new institution to be created |
| Tertiary Education | | | |
| Strategic vision | SES | COEPES | |
| Student achievement assessment | | | CENEVAL |
| Teacher and School assessment | SES | | CIEES, COPAES |

Source: adapted from the "Plan Maestro de Desarrollo 2004-2012 del INEE" (INEE 2004a, Anexo C)

In the next pages, a detailed description of the most important assessment tools heretofore mentioned follows. It identifies the scope, extent, quality, and diversity of the efforts which have made possible the assessment of education national system.

III.1. The Development of National Educational Assessment

III.1.1. Assessment: First Experiences: the Decades of the Seventies and Eighties

The first initiatives concerning the education system assessment began during this period of time. Quality of learning assessment tests then could not meet the characteristics shown in current examinations. Assessing knowledge at that time was just at an initial stage —psychometric and statistical techniques, for example, were not available. Therefore, comparability of results and stability of scales were not guaranteed (SEP 2002: 388). On the other hand, political considerations were against spreading of results and hindered their use as a systematic input for policy making. The assessment culture did not exist. Apart from these difficulties, these efforts reflected the increasing concern of authorities to learn what the state of education system was in order to improve policy decisions.

It is important to emphasize that the SEP did strive to gather and systematize information concerning Mexican education by using a census format, and to develop trustworthy and comparable throughout time statistics. Hence, it is possible to understand some basic aspects background, as the enrolment and coverage or the processes that were crucial for education quality, such as final efficiency or withdrawal from schooling.

The first general learning assessments developed at that time were more oriented to the students' entry accreditation to a higher level of education than to the assessment per se. In 1972, initial examinations were given out on a large scale in order to condition students entering secondary education. In 1974, the *Subdirección de Evaluación y Acreditación*²⁷ of the SEP was created while accreditation tests continued to be given. From 1976 to 1982, the first strict learning assessments were implemented using a project better known as "*Evaluación del rendimiento académico de los alumnos de 4º y 5º grado de educación primaria*". The project was based upon samples of students which reflected the educational situation on a national scale.

III.1.2. Development of Learning Assessments during the Decade of the Nineti

Significant advances took place in comparison to the immediate past period. Federalization of the education system coincided with the authorities' concern to develop trustworthy and systematic assessment instruments, towards the creation of efficient educational policies. The 1993 *Ley General de Educación* explicitly stipulates that the *SEP* will be in charge of the system's general assessment. Assessment will be systematic and permanent; will assist authorities to make decisions. The content of such policies will be made known to the educational system different performers: family and society (Articles 29, 30, and 31).

Therefore, the *DGE* plays a crucial role (Fernández y Midaglia 2003), by designing and coordinating multiple assessments. *DGE* main responsibilities are:

- To evaluate in a systematic and permanent way the education system development; the completion of objectives and the impact of programs and projects, as established in the National Education Program.
- To evaluate public resources allocation by the Ministry of Education, and to propose corrective measures when appropriate.
- To participate in the national education assessment policy development and coordination, the national education assessment system, and in Mexico's international education assessments.
- To participate in assessment parameters and criteria development.
- To propose general assessment guidelines to local authorities.
- To propose, in terms of the assessment results, strategic kind priorities, policies and programs.

During the nineties, the *DGE* used the Instrumento para el *Diagnóstico de Alumnos de Nuevo Ingreso a Secundaria (IDANIS)*, which was initially launched in 1986. In 1994,

²⁷ In 1984, this office was renamed Dirección General de Evaluación (*DGE*).

it developed the assessment of *Aprovechamiento Escolar* for the *Programa de Carrera Magisterial*, and the assessment of the *Programa para Abatir el Rezago Escolar (PARE)*. It also assessed, since 1996, the *Programa Evaluación de la Educación Primaria (EVEP)*. Finally, from 1998 on, it assessed the *Pruebas de Estándares Nacionales*. Some of these assessment instruments are currently applied, while others have been substituted or substantially modified.

Entry Level Secondary School Student Diagnostic Instrument, (Instrumento para el Diagnóstico de Alumnos de Nuevo Ingreso a Secundaria, IDANIS)

The IDANIS is used, since 1986, with 6th grade students of elementary education to gather individual information on their basic abilities in verbal expression, mathematics, and reasoning. This information helps to allocate students in secondary schools. At first, two states in Mexico were selected for its application. By 1991, it was applied in sixteen states using a census format. The test is currently applied in twenty of the 32 states in the country²⁸.

The test results give information on each student's abilities, on four levels of achievement. They are also classified by school; however, since the tests do not include questionnaires on background (except for the test given in Mexico City), the results do not allow levels of achievement among schools to be compared rigorously. During the initial years when IDANIS was being developed, questionnaires were distributed to all the participant states. With the information that this instrument collected, it was possible to manufacture and publish the first census based multivariate analysis of the contextual factors impact on students' achievements in Mexico. (Palafox, Prawda y Vélez 1992)

"Carrera Magisterial" and "Factor de Aprovechamiento Escolar"

The *Programa de Carrera Magisterial* (Program for teaching profession curriculum building) started in 1992. Its main purpose is to determine the basis for pay increases and promotions, among teachers and administrators, according to their performance and that of their students. It assesses teachers' and administrators' job performances and students' learning achievements. It is expected that such incentives should raise education quality.

The program evaluates two main issues: teachers' professional preparation and students' (learning) achievement. Currently, the program evaluates nearly 7,000,000 basic education students. However, it does not reflect the exact national circumstances, since the registration to the program is voluntary. Teachers have the right to decide whether to register or not.

The DGE is principally responsible for such an assessment. The complexity of this operation has required plenty of assessors not only from the government seat, but also from the states (Velázquez 2000: 663).

²⁸ Table 10 of Annex I includes other relevant aspects of the test.

The exams are “standardized”²⁹. In addition, social and cultural backgrounds of students are not taken into consideration, which makes test results interpretation questionable. The specific effects of teaching on learning cannot be accurately estimated. Hence, these tests cannot be considered as learning assessments in a strict sense. With the exception of a few descriptive reports, there is no known assessment analysis using this instrument.

Assessment of the Program to Abate Educational Backwardness (Programa para Abatir el Rezago Educativo, PARE) and the Program to Abate Educational Backwardness in Elementary Education (Programa Evaluación de la Educación Primaria, EVEP)

The PARE was a compensatory program which was launched in the 1991-1992 school year. Its purpose was to improve the existing conditions of schools in the four Mexican states with the highest averages of poverty. One of the program areas assessed learning expectations and the classroom teaching processes. It planned to include elements that would reveal the program’s direct effects on learning and to improve the quality of assessment procedures used by teachers, and to promote self-assessment methods within schools (Velázquez 2000: 655).

The use of assessment tools, from 1991 to 1995, was concerned with levels of learning and students’ abilities; the students’ social and economical background and previous schooling; and the education market condition (teachers’ and administrators’ profiles). Since 1992, the SEP has delivered several complete and descriptive reports based on those assessments³⁰.

With this experience in mind, the *Consejo Nacional de Fomento Educativo* (CONAFE) created the *Programa Para Abatir el Rezago en la Educación Básica* (PAREB), and in 1996, the EVEP was developed. Its purpose was to generate a file series from data on learning status not only in the states which profited by the compensatory policies, but also in all schools in the country.

The EVEP, from the very start, gave out learning tests on Mathematics and Spanish to 3th and 6th (elementary school) students, and questionnaires regarding context to parents, teachers, and administrators. The following years, other subjects were included as part of the tests. Up to 2000, five surveys have been applied to a panel sample of schools. Information of results was posted on SEP’s web page. No such extensive and quantitative analysis has been done since.

The importance of EVEP lies in the fact that it was the first similar attempt to the ones applied in the Latin American countries during the nineties. The EVEP is a good precedent for the learning assessments currently supervised by the INEE. On the other hand, development of this program helped strengthen the *Áreas Estatales de Evaluación* (AEE), since technical personnel of the states were offered various graduate courses, seminars, and workshops as part of their working benefits.

²⁹ The design of this test implies that some questions, either too obvious or too difficult, are to be eliminated from the test. Also, the individual results are reported in reference to the population mean.

³⁰ Besides qualitative reports that significantly enriched status of rural schools and indigenous education understanding, it included goals for its improvement (Ezpeleta y Weiss 1996, 2000).

Knowledge Olympics (Olimpiadas del Conocimiento Infantil)

The main objective of this instrument, created in 1993, is to promote students' achievement through a system of incentives and scholarships. There are exams for sixth graders (elementary education), and for third level of community, indigenous varieties, as well as private institutions. There is a significant coordination between state and federal institutions to implement this instrument.

It covers six subjects related to the current school curricula: language, mathematics, geography, history, natural sciences, and civic instruction. Each subject is covered by means of a multiple choice exam. Nevertheless, this instrument is not a student achievement rigorous assessment because of its inherited selection bias: only the best students can take part in the exam (about 10 to 30 students per state). In the 2003-2004 cycles more than 3,200 students participated.

Exams from the Centro Nacional de Evaluación para la Educación (CENEVAL)

The CENEVAL exams given to secondary level students stand out because of their wide coverage and their instruments quality. The CENEVAL is a civil association founded in 1994. Its purpose is to measure secondary, high school, and university students' knowledge. Exam results are used by many institutions to admit students in courses that are offered at those three levels of studies. It is particularly important to mention the *Exámenes Nacionales de Ingreso*, better known as EXANI-I y EXANI-II³¹.

EXANI-I has been given annually, since 1994, to students who wish to enter secondary or high school. Examinations tend to measure verbal and mathematical abilities, knowledge of different subjects, and social and cultural information of students. Nowadays, the approximate number of students who take the tests is 600,000.

EXANI-II has also been given since 1994. It measures abilities of those who wish to continue studies at a college level (more than 250,000 students). Many colleges and universities have participated in the production of the test contents because of the need to determine assessment mechanisms that reflect these institutions needs. It is divided into different sections, and every college and university has the chance to choose those ones meeting their acceptance guidelines.

It is important to stress that the CENEVAL has no power on decision making in respect of acceptance and number of acceptances. It only provides the necessary information so that colleges and universities may define their acceptance terms.

Spanish and Mathematics National Curricula Examination (Estándares Nacionales de Español y Matemáticas)

Examinations under *Estándares Nacionales* (EN) presented an important innovation. They focused not only on measuring knowledge, but also aimed to determine how

³¹Table 11 of Annex I it summarizes the characteristics of both tests.

close students met the minimum *standards* that official programs proposed. The *DGE* supervised the manufacture of tests and assessment mechanisms from 1998 to 2003. From that year on, the *Instituto Nacional para la Evaluación de la Educación (INEE)* is in charge of such affairs. The Ministry of Education (SEP) wanted to increase the validity of these tests, so it hired specialists from different fields and gathered administrators from all areas that were related to assessment in order to design this instrument. Nevertheless, some deficiencies occurred, due to technical, administrative issues, to the large volume of the application exercise and to being a first time initiative, among other reasons. Its assessment mechanisms are based on standards and the use of *Rasch* averages for result estimation. Even so, some standards did not correspond to the national curricula and some technical deficiencies were detected in the scaling of results. (INEE 2003a: 45)

Contextual questionnaires for students were applied as well as contextual questionnaires for teachers, administrators, and schools. However, until 2003, definite conceptual frameworks for manufacturing such questionnaires had not been defined. Because of this, different questionnaires were used in each school year, making it difficult to use data to determine and classify results and to compare data of different educational cycles.

During the first years of implementation, the six elementary grades were tested. Diagnostics can be done with less costly and more efficient assessment designs, for example, by spacing assessments and grades through time. Other problems encountered during these first years were the lack of prior item testing, and the recollection was done at different moments of the school cycle. All these factors can explain why this information has not been widely used for institutional and academic purposes (INEE 2003a: 46).

III.1.3. Assessment from 2000 to present

Most of the evaluations implemented during the nineties have been continued and broadened in scope and coverage in the past years. By doing so, the permanent element of a feasible national education assessment system is starting to appear. Over the years better assessment instruments have been used, state participation in education assessment has also increased, as well as results diffusion.

Of all done efforts to consolidate the national education assessment system, the creation of the National Institute for the Evaluation of Education (***INEE by its acronym in Spanish***) should be underscored, which as of today has a central role in national education assessment.

³¹ Articles one to five of this decree can be found in Annex II, section 6.

The National Institute for the Evaluation of Education, (Instituto Nacional para la Evaluación de la Educación, INEE)

In August 2002, the Instituto Nacional para la Evaluación de la Educación (INEE) was founded by means of a presidential decree³².

The INEE plays a central role in assessing national education. First of all, it is fully responsible for the production of basic education achievement assessments. It is in charge of designing, applying, processing, and researching all about national examinations (before *Estándares Nacionales*). It also is responsible for the application and development of research on international evaluations. It is also in charge of creating a dynamic system of indicators. Besides the usual indicators, it includes others that reflect the following: an ample idea of educational quality and equity, school and classroom processes, and the conditions in which learning experiences take place.

Its role is essential because of its institutional nature. One of the *INEE's* defining principles is autonomy with regard to educational authorities (INEE 2004). Such principle ensures educational criteria impartiality and objectivity, which makes INEE a trustworthy and rigorous assessment authority. The composition of a technical council where prestigious Mexican and foreign academicians and education experts take part reflects the INEE's autonomy. Therefore, the technical quality of the INEE's undertakings and its capacity for critical reflection are guaranteed.

The second principle of the INEE has to do with a close, direct communication with state and national educational authorities and society in general, and with parents of students in particular. As part of this principle, it seeks to offer the availability of results to anyone who is interested, towards efficient educational policy making along with fostering parents' cooperation.

The INEE represents a decisive change in assessment priorities perspectives and purposes in Mexico. In particular, it defines specific criteria for the diffusion and use of assessment results in order to promote a principle of transparency in all of its actions (see section 4).

Students' Achievement Examinations Developed by INEE

Currently, INEE evaluates the education system in ten areas, which in turn form the "national system of indicators" (see section 3.4). Of these ten areas, it is worth mentioning the basic education students' assessment in the areas of Language (Spanish),

³² Articles one to five of this decree can be found in Annex II, section 6.

³³ Table 10 in Annex 1 summarizes the distinctive characteristics of these tests. EXCALE substituted the "Estándares Nacionales" exams. The design of these tests is a new experience in Mexico. It has a collegiate and thorough nature in the quality of planning and developing processes. This precedent is a reflection of national and international experiences. Also, specific seminars given by specialists, academicians, and educational actors have greatly benefited from its final design. The design, development, application, analysis, and validation stages of EXCALE tests have been carefully specified in numerous technical manuals and terms of reference (public access in the INEE web page). More detailed information on test creation processes can be consulted in a publication known as *Plan General de Evaluación de Aprendizaje. Proyectos Nacionales e Internacionales* (INEE 2005).

Mathematics, Natural Science, and Social Sciences. In this section, the characteristics of these examinations and their contextual questionnaire are presented.

Since 2003, the INEE has been in charge of the national achievement assessments for basic education (elementary and lower secondary education), through national and state representative samples. In search of higher quality instruments, in 2005 a new generation of exams were developed. This exams area is called Quality and Achievement Examinations (*EXCALE by its acronym in Spanish*)³³.

- EXCALE are criteria type examinations. Thus, individual results are interpreted by the degree of competence that the individual achieved in a specific cluster of contents. In contrast, normative type evaluations interpret individual results by referring to other individuals' results (mean score).
- EXCALE exams are aligned with the national curriculum. As Mexico has unified school programs, free official textbooks, and homogenous teachers training, it is possible to produce test items of national applicability and with a common standard. Numerous specialists have contributed to the identification and contents to be included in the examinations.
- Items in EXCALE follow a matrix design. By using this technique, even though some individual precision is lost, it is possible to cover a broader scope of contents with the totality of the sample (which ensures aggregated validity). Therefore, students only answer a sample of items in the examination.
- The application design of EXCALE covers five school grades, from preschool to higher secondary education, through specific examinations. As results tend to show low variation between contiguous years, a cyclical implementation calendar has been designed, where grades are alternated (covering up to 2016)³⁴.
- The EXCALE tests include, in each and every level, different **curricula and knowledge mastery**. Curricula domains are considerably wider than the prior test generation, in which only Mathematics and Spanish Grammar were assessed. Current tests contain two new topic domains: Natural and Social Sciences³⁵. Tests seek to assess student knowledge and other abilities in every relevant curriculum domain. In general terms, this concept includes the interpretation and information retrieving abilities, reasoning, problem solving, and elaboration of justifications, among others.
- The **items** to be examined in the tests are basically multiple choice ones. However, since these items present certain deficiencies, when used to assessed complex contents and abilities, other response elements have been included in a sub-sample³⁶. It is important to stress here the conceptual complexity of the tests which include, for each area, different levels of difficulty questions, and which are directed to different aspects of learning. Specific instructions regarding the complete process of construction, validation, and pilot studies can be consulted in the technical manuals found on the web site of the INEE.

³⁴ Table 13 of Annex I shows the application calendar.

³⁵ Table 14 of the Annex I includes a summary of the domains assessed for each grade.

³⁶ In these open answer items, the student is required to elaborate and write down her answer.

- **Samples** of students and schools have been carefully designed to guarantee manageable confidence intervals of results at national level and for each of the thirty-two states. In 2005, approximately 50,000 students and the 2,800 elementary level schools (6th grade) and 2,400 secondary schools at (9th grade) were assessed.

- Finally, the test results are presented by **scales**, constructed through statistical procedures based on the Theory of Item Response. The student, school, state, and school variety results can be compared within each scale. However, the construction of each scale does not make them sometimes comparable (that is, results between Mathematics and Spanish are not subject to comparison). Likewise, as has been done in other years, these scales are divided into **levels of achievement** which allow interpretation of results in a significant, conceptual manner.

Along with the educational attainment examinations, a set of socioeconomic background questionnaires are applied in order to better understand the associated factors in students' performance. These questionnaires are the result of rigorous conceptual and methodological analysis done by external specialists and INEE's own human resources. In particular, these three questionnaires are:

- A questionnaire for students to obtain information about family, social, and cultural backgrounds, and aspects such as: learning expectations, preferences, strategies of learning; family support for schooling; computer knowledge; and students' perceptions about the teacher.
- A questionnaire for teachers, including social and economic information, years of teaching experience, teaching courses and other related courses, teaching environment, and implemented curriculum.
- A questionnaire for school principals, including the above mentioned information plus information regarding school facilities and school resources, and characteristics of the school management dynamics.

Since 2003, the INEE annually publishes such tests results in *La Calidad de la Educación Básica en México*. Results comprise national global information; comparisons between educational varieties; comparisons between states; comparisons by type; linear association models between obtained results and social and economic features of states (INEE 2004b, Chapter 2).

III.2. International Assessments

Since 1995, three international assessments on the quality of education have been implemented in Mexico. These are, chronologically, the following: Trends in Mathematics and Sciences Study (TIMSS); *Laboratorio Latinoamericano para la Evaluación de la Calidad de la Educación* (LLECE); and *Programme for International Student Assessment* (PISA). Such studies are important not only because they provide information which places education quality in Mexico within international standards, but also because their development, utilization, and analysis represent a great opportunity to obtain knowledge sufficiently valuable to improve national assessment systems. In this sense, each assessment has contributed different lessons.

Trends in Mathematics and Sciences Study (TIMSS)

TIMSS is a project which is sponsored by the International Association for the Assessment of Educational Achievement (IEA). It has been applied thrice (1995, 1999, and 2003) in more than 40 countries. Its purpose is to assess curriculum content for Mathematics and Sciences. Besides assessing students' progress in such areas, TIMSS applies questionnaires to administrators and teachers in order to reveal students' social and cultural circumstances and their attitudes towards the learning experience, characteristics about their schools, and the kind of teaching they receive.

In 1995, Mexico participated for the first time in the application of TIMSS. Nationwide samples of students aged nine and thirteen were assessed (more than 20,000 and 24,000, respectively). The *Secretaría de Educación Pública* supervised the application of the test.

Before the results were published, the Mexican government withdrew its participation in the study and decided not to publish the results. In 2000, the SEP and the *Dirección General de Evaluación* (DGE) decided to replicate such tests, the consequences of which were, as well, neither published nor analyzed.

Up to now, the only analysis of these results was undertaken by the INEE, in 2003. However, the database presents some limitations which restrict its use. The nature of the analysis INEE carried out (Backhoff y Solano 2003) is comparative, although it also examines correlations between social, cultural, and achievement levels of the states. Also, as will be discussed in the next chapter, test items were merely translated into Spanish without taking into consideration a contextualized translation suited for Mexican students.

Laboratorio Latinoamericano para la Evaluación de la Calidad de la Educación (LLECE)

This study is sponsored and designed by the *Oficina Regional de Educación para América Latina y el Caribe* (OREALC), UNESCO. It was carried out in 1997; thirteen countries of the Americas participated. Its scope and coverage makes LLECE a particularly interesting regional experience which involved coordinating numerous actors and the development of a complex, autonomous process. Besides assessing Mathematics and Language skills for third and fourth elementary school students, it extensively inquired students' backgrounds, school administrators, and teachers' pedagogical methods. OREALC published three reports on results in 1998, 2000 and 2001, in which a general view of education and its standards and quality in the region was reflected, as well as relevant findings in regard to other factors related to schools.

Even though some deficiencies were found in the implementation of this assessment (vide section 5.1.2), LLECE has been an enriching experience at the regional level, as well as for Mexico. Some valuable lessons can be learned from LLECE. In 2006, Mexico has pledged to have an active participation in the next LLECE round since the initial planning to its conclusion.

Program for International Student Assessment (PISA)

³⁷ Table 12 in Annex I includes other specific characteristics of international evaluations.

PISA is a special program created by the Organization for Economic Cooperation and Development (OECD) in which 49 countries –member and non-member countries– have participated. Its general purpose is to evaluate 15 year-old secondary education students’ “skills for life” (OECD 2004: 20). According to results, it stresses the need for supporting educational policies in each participant country. This calls for the assistance of national experts for the design and application of tests. Training is provided for the national teams in charge of using and codifying results. Mexico, as an OECD member, participated in two PISA rounds in 2000 and 2003. In both rounds, Language, Mathematics, and Sciences areas were assessed³⁷.

The applied instruments are founded on a solid conceptual framework defined by the governments of participant countries. Their main aim is to assist literacy. This concept refers to “the capacity of students to apply knowledge and skills and to analyze, reason and communicate effectively as they pose, solve, and interpret problems in a variety of situations” (OECD 2004: 23). For this reason, general abilities are also assessed (computer skills, learning management strategies, and problem solving).

Background questionnaires are given to the students. These include their personal interests in the areas being assessed, and how they perceive their own competence and their learning strategies. School principals also answer a questionnaire on general information about their institutions, curricular data, the role of authority, and interpersonal relationships.

The extensive information obtained from the PISA questionnaire allows an ample analysis from a wide range of descriptions and simple comparisons and even multiple level regressions to identify elements affecting learning levels. Notwithstanding, analyses being practiced in Mexico so far have been descriptive and comparative.

The next PISA examination in Mexico has been scheduled for 2006. It should be expected that the Mexican government will move forward towards an active participation in the stages of assessment planning. This situation will allow institutions and officials being involved in education assessment in Mexico to obtain knowledge from the sum of experiences.

III.3. Assessment of Teachers and Schools

A good assessment of the educational system must count on information on schools, their operating conditions and processes. It is also necessary to obtain detailed information about teachers and administrators, their working conditions, and their pedagogical skills. The concept of quality of education must consider not only learning levels, but also the human and school material resources quality, the relationships that are daily established within school and with society.

Assessment of schools and teachers in Mexico still is not comparable with existing learning assessments. There are some important initiatives which provide a considerable amount of information. However, indicators and assessment instruments have to be more elaborate.

Factors of the Professional Preparation for the Program of the Teaching Career

(Programa de Carrera Magisterial)

This factor is a wide-reaching project to assess teachers' productivity. It has been applied for more than ten years. More than 700,000 teachers nationwide sit these tests annually. The purpose of the program is to distribute incentives, not to assess teaching skills. The nature of the program is voluntary; its results, therefore, are not representative. The same applies to the learning improvement factor.

The assessment is based on the application of exams on professional development and knowledge for a) teachers in classrooms; b) school administrators; and c) auxiliary teaching staff. All three are assessed by different tests depending on the level of education involved. Generally, tests will include: curricular contents, regulations, and didactic purposes and suggestions which are contained in official government programs. It will also include, in the case of school administrators, questions on administration.

Contents of tests must be subject to approval by the Education Union (*Sindicato Nacional de Trabajadores de la Educación* (SNTE)) and by education government officials, since they have a direct impact on the professional achievement of those involved.

The DGE publishes and analyzes results. Individual results are based on a standardized index, in accordance with national averages, avoiding comparison of results with other years. Reports include different types of attachments and regulations. The reports are not intended to represent teaching assessment, therefore, more complex analyses of information have not been practiced.

Instrumento de Diagnóstico y Clasificación para el Ingreso a Educación Normal (IDCIEN)

In 1984, teachers' training certification was equated to a basic tertiary degree. In that same year, the Ministry of Education, through its *DGEP* office, designed an admission test for students willing to pursue a teaching degree in institutions under federal jurisdiction. The low demand for these degrees after the 1984 admission test inclusion changed the nature of the examination to a diagnostic instrument for the students admitted in the program. Therefore, in 1989 its name changed to Diagnostic and Classification Instrument for Entering a Teachers Degree Education (IDCIEN by its acronym in Spanish).

In 1992 when the *ANMEB* was signed and education services were transferred to the states, the *IDCIEN* became the responsibility of each state, with the exception of the Federal District. Since then, the role of the *DGEP* office in this matter has been to support those states wishing to carry on the implementation of this instrument.

The current theoretical and methodological examination structure was designed in 1998, and it shifted its emphasis from curricula competence to learning abilities.

³⁸ School self-assessment is defined as a reflexive observation process of the organization's own processes and results. For this purpose, there are many instruments and communication strategies. In a strict sense, self-assessment is an inherent requisite in any organizational activity. Nonetheless, self-assessment is understood here as a systematic diagnostic process, consciously guided, with standardized instruments, where teachers and school principals participate. Its main objective is to identify strong practices as well as those practices which can be strengthened or reformed.

Three types of learning abilities are now evaluated: verbal abilities, mathematics and formal reasoning. Each, in turn, has different “sub-abilities” being assessed. Grading is quite simple: number of correct answers over the total number of items. Participants’ results can be categorized in four different learning abilities levels.

DGEP promotion of school auto-assessment

Since the nineties the Policy Evaluation Office (*DGEP* by its acronym in Spanish) has strongly promoted self-assessments in schools. The *DGEP* initiated this measure³⁸ partly due to the fact that it was not always possible to use external evaluation results in the betterment of organizational and pedagogical practices. With this objective in mind, this office has fostered initiatives involving a more active participation on the part of school teachers, administrators, state education overseers, and state education authorities.

- One of the first initiatives being implemented was the massive distribution of a brief self-assessing guide for schools. Its purpose was to become a basic reference manual about the relevance and implementation of self-assessment for teachers, principals, and school supervisors. This guide also included schools with best results. Characteristics.

- The second initiative was more ambitious in its objectives and implementation. It followed a successful basic education school self-assessment developed in Scotland³⁹. The *DGEP* translated and adapted the document to the Mexican education context in 2003. About 40,000 booklets were printed and distributed among all school supervisors in Mexico. It covers seven areas of performance indicators⁴⁰.

- The most recent initiative, developed since 2002, consists in promoting a self-assessment based on a national “total quality” model, which has been adapted to the basic education context. This initiative has already received the consensus of state education authorities and other education actors. This project offers schools an exhaustive self-assessment program, providing them with documents and instruments for identifying assessment elements and procedures.

Assessment of the Programa Escuelas de Calidad (PEC)

The Quality Schools Program (*Programa Escuelas de Calidad, PEC*) is a federal government initiative which is addressed to basic public school education. It was introduced during the 2001-2002 school year. More than 35,000 schools had registered by the 2004-2005 school year⁴¹.

³⁹ *How good is our School? Self-evaluation using performance indicators*. The Scottish Office Education and Industry Department (1998).

⁴⁰ These performance indicators are: 1) curricula implementation, 2) teaching and learning, 3) student achievements, 4) student support, 5) organizational climate and identity 6) resources, and 7) direction and leadership.

⁴¹ Its general purpose is to improve education in schools by strengthening and unifying federal, State, and municipal areas, in order to promote new models of school administration, teaching skills, and social participation, thanks to which the cultural organization and function of schools in the program will be transformed (Bracho 2004).

Evaluating such a program including such ambitious purposes is a complex task. Launched by the SEP, it seeks to coordinate several institutional areas and performers. One of the first main assessment strategies is one undertaken by the *Subsecretaría de Educación Básica y Normal* (SEByN – SEP) and delegated to the (CIDE). Between 2001 and 2004, four complete assessment reports have been submitted. Reports do not directly include information on assessment of schools and their processes, but the articulation of more ample aspects of the program.

To assess the program operation at school level, the PEC includes a second qualitative assessment strategy which has been constantly operating since its first year of implementation⁴². The main purpose of such assessment is to identify changes which can be attributed to the program in matters of administration, participation, and pedagogical practices at school. Other purposes of the program have to do with program decision making feedback and local assessing strategies development (SEP 2003: 13)⁴³.

Since 2001, many research instruments have been in practice⁴⁴ in a school sample. This is a new experience, due to its plan and coverage, nature of assessment, the use of previous measurements as well as those calculated after the program came into force. An extensive and descriptive report has been published, known as “*baseline*” (476 schools were selected randomly at the beginning of the program, from 31 states). Such report, published in 2003, includes complete information on teachers’ professional profile and skills, quality of organizations, and kinds of social participation. In August 2005, a report on the impact of the program will be rendered to government educational authorities and state assessment teams. Publication of this report will be a milestone in the assessment of national educational system. It also is recommendable to reveal the existing information sources and data base used in order to permit research from various interests and points of view.

III.4. The national education indicator system

As has been argued, assessing the education system with diagnostic purposes requires that multiple initiatives and policies should be linked in connection with a national assessment system. Ideally, the information that these instances produce should all coincide in a single national education indicator system permitting the constant supervision of multiple dimensions in the education system, the quality of resources, processes, and results.

According to the conceptual framework detailed in The Education Policy Assessment

⁴² Such assessment is carried out by Heurística Educativa, on behalf of SEByN.

⁴³ Qualitative assessment of PEC is in connection with the federalized structure of Mexican educational system, which means that state assessment department and that of the DGE are involved together with Heurística Educativa. In 2002, the DGE applied Estándares Nacionales tests to perceive the achievement level of these schools. Each state department must submit its own reports. In order to ensure quality of these combined efforts, a course on qualitative assessment methods and techniques was implemented for states representatives.

⁴⁴ A total of twenty instruments have been used, including interviews, questionnaires, focal groups, and assessment on working areas such as learning, documental analysis, and videotapes.

System (*SEPE* by its acronym in Spanish), the indicators construction should be guided by four general criteria: i) pertinence, ii) sensitivity, iii) relevancy, and iv) viability.

The *pertinence* of an indicator refers to its validity, in other words, to its competence to effectively measure the empirical referent of the concept. *Sensitivity* refers to its ability to register significant variations of the measured phenomenon. *Relevancy* refers to the indicator's capacity to provide useful information about substantive issues, i.e. to become a useful tool in policy decision making. Finally, *viability* of an indicator refers to the possibility of accessing the correct information to create such indicator.

In Mexico the responsibility for developing a national education indicator system corresponds to *SEP*, and since 2002, *INEE* has also participated. Multiple national and international information sources are combined in this system. From the combined efforts between *SEP* and *INEE* in 2005 a common set of basic indicators has been proposed.

With the annual publication of *Panorama Educativo de México* (2003b, 2004c), the *INEE* is advancing in the systematization of this indicator system. For this purpose, *INEE* has done a substantial work in the conceptual definition, selection, systematization, and processing of all relevant information. In 2004, *INEE* reported around one hundred indicators grouped in ten broad concepts:

- Socio-demographic background (11 indicators)
- Socio-economic background (11 indicators)
- Socio-educative background (10 indicators)
- School human resources (11 indicators)
- School physical resources (10 indicators)
- Education system financial resources (8 indicators)
- Access and permanency in the education system (5 indicators)
- School management (5 indicators)
- School processes (17 indicators)
- Learning achievements (11 indicators)

Indicators are disaggregated according to different criteria⁴⁵ depending on which state, type of locality, education levels, gender, etc. School, teacher and student's education trajectories indicators will be discussed in more detail in this report.

School and Teacher indicators

In regard to school and teacher indicators, *INEE* has made a novel contribution to the indicator system by including in its achievement exams a set of questions for teachers and principals in regard to teaching practices and their management, perceptions and value judgments. The creation of such indicators suggests an important progress in knowing the teachers' characteristics, their working conditions and performances, and ideas on teaching. In particular, these indicators comprise:

- Principal's satisfaction of school environment (includes value judgments about resources and interpersonal relationships)
- Teachers' joint work

⁴⁵ Indicators appear in Table 15 of Annex I.

- Perceptions about students' academic achievements
- Principal's leadership roles (various dimensions)
- Supervision by school team in relation to school results (curricula and other issues)

Student achievement indicators

The main source for creating indicators for educational improvement of students is the information that the *Dirección General de Planeación, Programación y Presupuesto* (DGPPP) of the SEP obtained. This office has permanently offered information on the number of existing schools since 1970.

The instrument currently used to obtain data is known as *Forma 911*. It includes a series of questionnaires that must be filled out by school administrators. Such questionnaires are given out to schools at the beginning and at the end of every school year, which makes two annual samples. The information spectrum contained in the questionnaires is vast, and it includes data relating to students', teachers', and school administrators' characteristics.

From the information collected in *Forma 911*, INEE builds and reports several related indicators to track students' trajectories from elementary and secondary levels (INEE 2004c). Census information is used to construct indicators. The *Instituto Nacional de Estadística, Geografía e Informática* (INEGI) provides this data. The following important indicators are:

- *Percentage of students in expected grade, according to age*
- *Passing rate*
- *Transition net rate*
- *Total drop out rate*
- *Net drop out rate*
- *Efficiency time rate*
- *Percentage of students who concluded elementary and/or lower secondary education*

III.5. Other Education Assessments

III.5.1 Higher education external assessments

Higher education assessment is formed by multiple initiatives in which an ample spectrum of institutional actors participates. Because of the complexity and magnitude of these assessments, it is not possible to offer here an exhaustive report. Therefore, in this section only external assessment initiatives will be outlined.

• *National Center for the Assessment of Higher Education (CENEVAL by its acronym in Spanish) exam*. Apart from the examinations already mentioned in this report, CENEVAL has a well earned reputation in the creation of numerous curricula and abilities examinations for higher education degrees. These exams are used as entry mechanisms for postgraduate education (*EXCANI III*) and for student curricula accreditation at the end of a bachelor's degree (*EGEL*). The National Entry Examination III

(*EXCANI III* by its acronym in Spanish) was first implemented in 1997. It is a normative, multiple choice examination. In its design numerous academicians, university authorities, and national education organisms participated. In 2004, more than 10,400 students sat this examination. The General Higher Education Exit Examination (*EGEL* by its acronym in Spanish) is currently applied to more than 23 different higher education degrees. Also, *CENEVAL* applies these examinations for labor and technical curricula accreditation, as well as for elementary teaching accreditation diploma.

Inter-institutional Committees for the Assessment of Higher Education (CIESS⁴⁶ by its acronym in Spanish)

CIESS, created in 1991 by *SEP* and *ANUIES*, is an exceptional experience in assessing higher education programs among peers. It comprises nine collegiate bodies, and it aims at performing an inter-institutional evaluation of programs, services, and projects in more than 90 higher education institutions. These assessments have a diagnostic character. Notwithstanding, **CIESS** also carries out academic programs accreditation —relying on specialized bodies—, and serves as a consulting body for higher education institutions. From guidelines, conceptual frameworks, and other assessment materials, to transversal studies on the state of particular fields of study and information bulletins, these committees contribute diverse and numerous publications.

Higher Education Accreditation Body (COPAES by its acronym in Spanish)

This civil association, founded in 2000 with the assistance of *ANUIES* and recognition of the *SEP*, is made up of numerous professional associations. Its main objective is to ensure higher education quality through the regulation, assessment, and formal recognition of accredited activities. For this purpose, this organism has the prerogative to produce clear, objective and public accreditation criteria. It also generates the guidelines that accreditation organisms should follow. Currently, *COPAES* has certified 15 accreditation organisms and is about to certify eight more.

III.5.2 Other education quality assessments

Quality education assessment should not be restricted to only measure student achievements in particular knowledge domains. As we stated in chapter II, the objectives of Mexican education transcends knowledge transmission by including the formation of democratic values, tolerance, respect for diversity, and development of socially responsible conducts.

⁴⁵ More information about this organism can be found at www.ciess.gob.mx

⁴⁷ INEE has included in its 2004 annual publication “Panorama Educativo de México 2004” private and social return rates of education disaggregated by sex and geographical strata. It also makes reference to unemployment rates and labor participation by educational levels. (2004c: 89-101).

At the present time in Mexico, assessments have not systematically included these objectives in their design. Including these objectives to an education assessment requires a great conceptual effort. It is necessary to rely on assessment policies where the impact that education has on students' lives is involved. In this sense, it is extremely important to know the impact of education on the capacity of individuals for social interaction and participation as citizens, and to know the strategies used by students to have control over their own vital decisions. It would also be desirable to determine the impact education has on social integration and culture. Other dimension that should be included in assessments is education impact on economic and labor opportunities⁴⁷.

It is obvious that the latter is not easy to define or to observe through valid and trustworthy instruments. Besides, such a vast spectrum of problems cannot be solved exclusively by the government. Government authorities are responsible for the obtainment of quality information providing sufficient elements to proper use and interpretation of that information. To guarantee the obtainment of an assessment as we have defined it here, it is necessary to engage the academic institutions, which are devoted to study the educational process as well as its results.

IV. The disclosure of assessment results and its uses

A description of the way in which assessment results are conveyed and used by the different performers in Mexico is presented in this chapter. Given the complexity of the subject and the limits on extent that this report has to conform to, just an overview will be offered. Certain matters and experiences especially worthy of attention will be highlighted.

The disclosure of results is a fundamental part of assessment, since it gives meaning to the tackled efforts. A diffusion which meets the many education system performers' demands and necessities is indispensable not only for the design and implementation of effective education policies, but also for the reporting of results before society.

However, not all forms of transmitting results are equally convenient. Ready access to a large volume of information is not enough. Appropriate tools for its interpretation should be made available and its misuse prevented. Only to this extent will diffusion permit assessment to become advantageous for education and to be regarded without distrust by those subjected to it. Diffusion of information should take into account the current and potential results users. From the table below, six levels of use of information can be identified, each corresponding to different types of performers which are associated with the education system.

TABLE IV.1: ASSESSMENT: PERFORMERS AND PURPOSES

| Level | Performers | Purpose of assessment |
|-------|--|---|
| I | National and state educational authorities (ministers, undersecretaries, and area directors) | Creation of strategic policies and decision making Accountability |
| II | Middle range authorities (regional and zone head coordinators and supervisors) | Identification of regions or private schools with problems and specific needs |
| III | School principals and teachers | Strategic management of schools (pedagogical orientation and central projects) |
| IV | Universities and Research institutes Teacher training colleges | Decision on curriculum for the teaching profession; research on system quality and management |
| V | Families with children attending school | Basic input for the making of demands |
| VI | Society as a whole Media | Improvement of public issues quality discussion |

Source: adapted from Fernández y Midaglia (2003: 62).

National and state education authorities need education system diagnostic assessments in order to plan and develop short-term and long-term programs and policies. At the same time, these general assessments serve as an accountability mechanism to government actions. Middle range authorities have more specific needs. In particular, assessment results are needed to detect and solve specific situations in regions and schools. In turn, teachers and school staff require specific information about their school in order to design problem-solving strategies, and to report school progress to parents. Therefore, the ways in which assessment results are to be presented should correspond to their specific use. For education assessment to be perceived as legitimate by those assessed and for it to constitute a significant contribution to the betterment of education quality, its results should be transmitted in a clear and transparent fashion, avoiding simplistic, punitive interpretations.

IV.1. Assessment Results Diffusion Achievements

At present, the assessment results disclosure in Mexico has extended its scope on account of the endeavors of multiple organizations. The *DGE*, *SEB*, and *INEE* have taken the initiative towards the development of a “new assessment culture” by broadening the access to information and publishing many reports and analyses of results. This situation represents an enormous change from the previous situation, where there was practically no diffusion of assessment results.

How assessment results have been disclosed and used in Mexico is synthesized in table 4.2. The table divides Mexico’s experience in three stages and among information users. The first stage refers to the first assessment experiences up to the late nineties, when, for political reasons, results were not used or disclosed.

The second stage represents present time. Diffusion of results has become over time a central element in education assessment. Authorities are using more often the assessment results, and there are numerous ways for society to ask for information about these topics. Nevertheless, there are still some situations to be improved. Results do not reach equally all involved actors. In particular, there is a need to develop a systematic way of making the results available to teachers, principals, parents, and students. If assessment results do not reach the people directly involved in the education process, there are scarce opportunities for it to have an impact in the improvement of education practices. It should also be noted that when assessment results have been disclosed to society through the media, there has been some misinterpretations or results have been interpreted on the bias⁴⁸.

As a way of solving these existing situations, it is necessary to envision a third diffusion stage where assessment results are disclosed in a systematic and relevant way to all parties. It implies not only opening ways for the free access of assessment results, but also correctly contextualizing these results in the way that better suits each education level needs and demands.

⁴⁸ As an example, the results in the PISA experience on the part of Mexico have given way to very strong critiques about the Mexican education system. Results are simplistically interpreted as a ranking, without taking into account the differences in social contexts of the education processes between countries.

TABLE 4.2: EDUCATION ASSESSMENT RESULTS DIFFUSION AND USES IN MEXICO

| | National and state educational authorities | Supervisors, Principals and Teachers | Parents | Society |
|---------------------------------|---|---|--|---|
| Stage I | Limited diffusion. Results are not used in policy decision making | Results are not shared with these actors | No diffusion of results | No diffusion of results |
| Stage II | Ample diffusion. Results are sometimes used in policy decision making | Limited diffusion. Results are scarcely used for improving pedagogic practices | No diffusion of results | Ample diffusion. Results are sometimes incorrectly or interpreted on the bias |
| Stage III (desirable situation) | Ample diffusion. Results are a fundamental input in policy decision making and design | Ample diffusion. Results become a permanent feedback mechanism in pedagogic practices | Ample diffusion. Results permit the participation of parents in school matters | Ample diffusion. Results generate a responsible and well informed debate |

IV.1.1 Conveying Results Strategy by the INEE

The *Decreto de Creación del INEE* (2002) establishes that the mission of the institution is to promote and strengthen the culture of assessment in the field of education as a whole; to spread the analyses of results, and develop training activities on education assessment (article 3; VII). It also decrees the *INEE's* obligation to reply to those who contribute to generate information; that is, it must give information in return for what it receives. The INEE must indicate the acceptable uses of assessment; avoid inequitable comparisons among schools or among subsystems; and supervise that results are not used for making decisions against any person but as feedback for the education system (article 4; II, III, V, and VI). These guidelines define the direction of *INEE* concerning diffusion: transparency as for the access of information, and conscientiousness as for its use.

The most important national scale innovation on diffusion might probably be the availability, through the web page of the INEE⁴⁹, of the national learning tests micro databases. Furthermore, this initiative not only meets the principle of transparency, but also favors the development of independent research.

⁴⁹ www.inee.edu.mx

However, it must be taken into account that not all performers have the means necessary for using the national tests databases. For this reason, the INEE continuously prepares reports, pamphlets, and technical booklets in which the results are summarized and diverse problems analyzed. Of the reports, three types stand out: i) the *La Calidad de la Educación Básica en México* (2003 and 2004) editions, in which the national learning test results are analyzed to a great extent; ii) those titled as *Panorama Educativo de México* (2003 and 2004), in which a multidimensional system of education indicators is presented; iii) the analyses of PISA tests results, 2000 and 2003. All these reports are available on the web page of the INEE. In addition, the first two are printed on a large scale once a year.

Certain especially relevant matters, such as the *telesecundarias* management and quality, education for the indigenous peoples, or the reports of the OCDE on Mexican education, are analyzed in the pamphlets. Finally, in the technical booklets, the special research of the national learning tests, based on intensive, complex, and detailed data analyses, can be found there, among other facts. All of these publications can be consulted on the web page of the INEE.

Besides the foregoing, the activities that the INEE develops in conjunction with the *Áreas Estatales de Evaluación* (AEE) should be emphasized. In the past two years INEE has coordinated technical courses together with state AEE in relation with many subjects of the assessment practice. The main objective of these courses is to raise the technical proficiencies of these state assessment institutions, and to help AEE to transcend its logistic role and become an active participant in its state education assessment initiatives.

Some of the subjects taught are statistical analysis, interpretation of results, how to disclose results, and how to use results for policy decision making. Participant state institutions should, at the end of the course, present a state report using learnt information. Currently, most AEE have participated in these training courses, and each year some 170 staff members have taken part.

The INEE's Analyses on Applications of Tests Prior to the Year 2003

The INEE has prompted expert educational academicians' participation in the development of different types of analyses based on national assessments results performed in the school years prior to the time when it assumed charge for national testing. These analyses have been put into research reports, published by the INEE on its web page (www.inee.edu.mx).

The reports show thorough information processing and great complexity, especially those intended to identify sociocultural and organizational factors associated to education results (Fernández 2003a, Muñoz Izquierdo et al. 2004, Treviño y Treviño 2004). Although descriptive, the rest of the reports also present excellent, complete, and detailed analyses (Fernández 2003b y 2003c, Treviño y Treviño 2003, Zorrilla y Muro 2004). All of these reports are important references on the type of analyses that should be made according to tests results and to broaden our knowledge about the education processes.

The presence achieved by the INEE in the media is also important, not only because of the reporting of learning assessments results, but also thanks to the information about diagnostics on schools and teachers situation, and the students' curricula, together with noticing the consequence of contextualizing the interpretation of the reports. INEE has also given courses to journalists on how to interpret the results derived from the different education assessments.

IV.1.2. Disclosure of Results by the DGEP

The assessments results carried out by the SEP's *Dirección General de Evaluación* (DGEP) are diffused through different means, depending on the purpose of each assessment.

In the first place, the public reports which were completed on the basis of data from national tests should be mentioned. The most important publications on this matter have been the following:

- *Distribución de los planteles públicos de educación primaria y secundaria, según el nivel de aciertos de sus alumnos en los exámenes de Carrera Magisterial* (SEP 2000). The results of the *Aprovechamiento de Carrera Magisterial* tests, applied between 1997 and 1999, were used to assign one of the five levels of success to all schools taking part. From the data of a research on quality, a small sample of schools with high results was derived, which permitted the profile of efficient schools to be outlined.

- *Reportes estatales de los resultados de Carrera Magisterial*. Each year, within the Carrera Magisterial program, the DGE publishes reports of state results. The factors of scholastic achievement and of professional development are reported separately. In each of the reports, the procedures which were used to analyze the information together with the results are detailed through abundant disaggregating.

- *Informes de resultados de evaluación del PARE*. From 1991 to 1995, various instruments were applied in four state schools, where this program was implemented to determine first grade students' levels of achievement, as well as certain characteristics of the educational supply and demand. These assessments resulted in exhaustive, descriptive reports through which conditions of education imparted to the most impoverished strata were made known.

- *Resultados de la vertiente de seguimiento del EVEP*. Between 1998 and 2000, the DGE and the AEE of many of the interested states collaborated to create detailed research reports on the compensatory programs management and the characteristics of incremental and "decreasal" schools⁵⁰ (SEP 2000b, 2001b). This experience was framed within a broader range of activities destined to increase participation and level of training of the AEE.

⁵⁰ An incremental school was defined as one that increases its results averaged between two EVEP tests. A decreasal school was defined as one which decreases its average achievement between two tests. For the study at hand (SEP 2001b), the schools showing the greatest variation between the two EVEP testings in each state were subject to research.

An Experience of Analysis and Training: the Follow up Aspect of the EVEP

With the purpose of strengthening the human resources of the Areas Estatales de Evaluación (AEE), the DGE sponsored, in 1998 and 1999, two graduate courses on qualitative research. Ten states participated in the first one, which focused on the impact of the compensatory programs on teaching in rural schools; the classroom processes, and the characteristics of work in 82 schools were researched. In the second course, fifteen other states participated; they researched in depth the conditions of 128 schools and wrote an interesting description about the factors distinguishing schools which increased their learning level from one school year to the next. The results of both courses appeared in separate publications (SEP 2000b, SEP 2001b).

These studies not only helped to strengthen the AEE research abilities, but also systematized information on school processes and fostered useful reflections for policies on education information.

All the above mentioned reports, as well as state reports can be downloaded from the National Education Assessment website at www.snee.gob.mx

Besides these publications, each year, since 1999, the DGE delivers the *Carrera Magisterial* tests results to the state educational authorities so that they are distributed among schools and educators participating in the program. It has been stated in the previous chapter that, because of the test objectives, its results should not be used to make general diagnoses on education conditions. However, they could become useful feedback for teaching methods. The results are printed in a disaggregate manner for each educator and delivered in separate envelopes in order to maintain confidentiality of information. This permits each educator to know his or her own results and those of his or her students.

Ideally, this procedure should be considered a useful element for self-assessment. Nevertheless, the very distribution of the results does not seem enough to incite these kinds of processes. For one thing, there are obvious logistic problems in the personal distribution of results to more than 600,000 educators throughout the country. Secondly, this diffusion is not necessarily institutionally framed in a way that motivates its use towards the improvement of teaching quality. In some states, the AEE's do not have enough economical and technical resources so as to make conscientious use of these data.

The IDANIS test general results for students entering secondary school are made public. In the DGE web page, a temporal series of results, disaggregated according to the participating states, is presented. The *Sistema de Información para la Mejora Educativa* (SIME), functioning in the Federal District, represents a particularly interesting experience in the use of this test results.

The Sistema de Información para la Mejora Educativa (SIME)

As of 2004, the *Subsecretaría de Servicios Educativos del Distrito Federal (SSEDF – SEP)*, with the DGE and INEE collaboration, instituted the SIME as a means to deliver information rapidly and directly in respect of the performance level of schools. This information is mainly addressed to principals, supervisors, and section heads, and its purpose is that they learn at which level their school is placed with respect to other schools in similar socioeconomic conditions. To this end, the results of the IDANIS test are used along with information on students' parents schooling.

Each school results are available on a special web page specially designed to this end. Students' results can be placed on three different levels of performance, and their evolution in the last few years is presented. At the same time, these results are compared with those scored by the top schools within the same socioeconomical context. By this means, the factors leading to a "betterment opportunity" are recognized for schools.

IV.2 Legal framework and disclosure of information

At present, Mexico has not a unique set of norms linking all national and state assessment institutions, and this situation specifies sorts of results, mechanisms, and assessments recipients. The 1993 *Ley General de Educación* does not state explicitly enough how diffusion should be effected. Neither are there specific regulations on diffusion in states, which gives way to a large discretionary use margin.

This situation, for the most part, is due to the complexity of the national assessment system. It assembles various initiatives, with different objectives and possibilities for use. It must be taken into account that diffusion of information is a delicate matter; its improper use can be unfavorable for students, teachers, and schools.

Nonetheless, the contribution of legal modifications giving impetus to a new culture of diffusion must be mentioned. In 2002, the *Ley Federal de Transparencia y Acceso a la Información Pública Gubernamental (LFPAIG)* was passed. It establishes information public nature and institutional obligation to make any information available provided that it is not confidential (pertaining to natural persons) or not expressly classified as reserved. This regulation is a substantial advance in relation to past decades, in which diffusion was considered with mistrust by educational authorities—who reckoned it could be used for political purposes.

However, the LFPAIG nature is general. For that reason, it does not specify in detail concrete forms for diffusing assessments nor does it indicate the information diffusion obligations within the institutions, which would be expected in order to ensure a fluent circulation of assessment results among the performers of the educational system. We believe that the further establishment of regulations is necessary to ensure the utmost use of assessments by all involved in educational and social accomplishments.

IV.3. Assessment Results Uses

Investigations systematizing the various ways in which assessment results are used throughout the system are still not existent in Mexico. Nevertheless, it is possible to determine certain general characteristics of assessment current situation in this particular sense.

The use of assessments in all of these levels is thus far not as systematized as it could be expected, because assessment culture in Mexico is still quite recent and, therefore, must become firmer. Diffusing results is in itself a relatively new practice adopted in the late nineties, which accounts, in part, for the want of general regulations and for the delay in information utilization.

In spite of this, some cases do show the influence assessments exert on strategic measures coming from the national education policy. In 2003, for instance, from a report on education results carried out by the INEE, the educational authorities and the federal government decided to increase the financing for the *Escuelas Telesecundarias*. In addition, as part of the SEP strategic agenda, it has been agreed to systematically compare the assessment results with the objectives outlined in the *Plan Nacional de Educación 2001-2006*. Decisions like these prove the increasing interest in political spheres towards assessment results.

An Outstanding Analysis Experience in Secondary: the State Reports of the RIES

The SEP has currently undertaken a process known as *Reforma Integral de la Educación Secundaria* (RIES), focused on improving efficiency and equity in this segment.

Intending to better understand secondary for strategic decision making, the *Subsecretaría de Educación Básica y Normal* (SEByN) promoted, between 2002 and 2004, state diagnoses to be effected on certain matters: i) Educational opportunities distribution, including levels of learning; ii) School system organization and management; iii) Teachers' professional profiles and expectations; iv) Students' prospects regarding secondary school purpose; v) Successful innovation experiences.

The SEByN made an important effort to support these activities: it held meetings and workshops with the supervising teams and manufactured handbooks on report writing.

The reports of states —which can be consulted on RIES web page (www.ries.dgme.sep.gob.mx) coordinated by the Dirección de Materiales Educativos) — use results of *Estándares Nacionales*, *Carrera Magisterial*, *IDANIS* and *EXANI-I* tests, among other sources, to perform descriptive assessments on the quality of learning.

These reports have been of great help, according to participants, not only to know each State education status, but also to reflect on how assessment is related to decision making.

As for the state educational authorities, the reports seem to bear a different influence on them—even those prepared by the states or within them. Although in recent years state authorities have been concerned with analyzing the information on their own (as has been mentioned with regard to the joint efforts between the *AEE* and the INEE or as the following table shows in respect of the RIES), such analyses do not necessarily affect the policy decision making for most state with some notable exceptions.

Besides the factors above mentioned the comparative human and material resources shortage in many of the *AEE*, together with other particular characteristics to each state educational system, have influenced the relative absence of impact of reports in the states. A thorough research carried out in 2003 (Fernández y Midaglia 2003) on the use of the information obtained from the *Programa Carrera Magisterial* showed that, although there existed significant differences in the purposes and ways in which the *Carrera Magisterial* results were made known among schools, the information was, in general, diffused in a routine manner, not relevant for strategic use towards improvement.

It is very important to make progress on this matter, since it is incumbent to states to promote strategies for using information among intermediate sectors and schools. To ensure that assessment results are efficiently informed in an appropriate context to schools, diffusion and evaluation must be given utmost priority in educational agendas of states. On the other hand, the institutional capacities of the *AEE* must be strengthened towards attaining the administrative and political autonomy which will allow them to develop the dynamics for self-sufficient assessment.

As to schools, as previously noted, result diffusion is considerably heterogeneous—it depends on geographical and political circumstances, among other multiple factors. It is relevant to mention a study applied in three states and focused on the *reading levels of the assessment reports* as declared by teachers and principals (Fernández y Midaglia 2003). The study shows considerable differences of reading levels among states, and among ways in which schools collectively receive the reports. They suggest very dissimilar conditions (2003: 113, 147). Notwithstanding these differences, the findings, in all three states, point to the fact of the principal's initiative being critical by putting information within reach of teachers and to the highly determinant role of supervisors when giving principals access to information (2003: 118-119). It is also possible to conclude that, of those teachers having accessed the reports on results, only a small number strives to modify his or her own classroom teaching strategies according to them (2003: 125).

The referred diagnosis on the uses of evaluation leads to three basic reflections. The first one being that the strategies of states diffusion will influence the way in which results are received at schools. The second one being that an important vehicle for transmitting information exists among the supervisor, principal, and teacher, and is directly related to the outcome of diffusion. The last, that it is still necessary to develop diffusion strategies which counsel educators on ways they can adjust their daily teaching methods in agreement with the results.

Finally, it is necessary to strengthen the existing mechanisms for training teachers in ways they can use the assessment results in their own pedagogical practices. The box below shows a very interesting initiative developed by INEE.

INEE initiative on training teachers in using assessment results

During the second semester 2005, INEE implemented a very interesting training activity with teachers –using the items liberated by the PISA examinations. This course gave teaching staff the opportunity to get a general picture about PISA examination, its objectives and peculiarities.

The liberated exam questions were analyzed from a psycho-pedagogic perspective, that is, presenting the correct response percentage according to social strata, and identifying the cognitive processes implicated in each response option. The most interesting aspect of these courses is the emphasis given on how teachers can use this information in their everyday practice. Teachers are encouraged to take these questions to the classroom and to involve the whole classroom in correcting these exercises.

By means of this practice, teachers will have another mechanism to know their students' cognitive abilities and new ways of self-assessment and feedback.

IV.4. Summary

This chapter has made evident the Mexican educational system decision, through its authorities and assessment institutions, to amplify the public and political diffusion of assessments. Various initiatives and a new legal framework back up such decision. Still, it is necessary to develop institutional mechanisms and regulations which ensure a fluent communication among all the system performers, so that the various interests and necessities associated with assessment are included. Thus, the conditions for the appropriate and productive use of results will be improved.

V. Education assessment in Mexico: positive aspects and challenges

This chapter discusses the extent to which Mexican education system assessments convey relevant and sufficient information in regard to the degree of national goals met. This broad and critical view on the current assessment state is essential, not only to correct errors and deficiencies, but also to identify successful experiences and strengthen their development.

V.1. Aspects of Assessment to be Improved

V.1.1 Necessary Improvements on National Assessments

The following box reviews matters on national assessments which need further development. As will be noted throughout the chapter, these difficulties can be solved if the current course of action, which favors transparency and high quality in assessments, is continued.

Box 5.1

The Assessment of Education in Mexico: What Needs to be Improved

- The OBJECTIVES of assessment need to be more ambitious. They should lead to the accurate identification of organizational and social issues of the system, which, if modified, can affect education quality. Consequently, concepts and methods on which schools and teachers' assessment is based need to receive more attention.
- The conceptual and technical INSTRUMENTS used to reveal schools and teachers' quality, along with school processes, need to be refined. It is necessary to develop more complex designs and to make background questionnaires more delimited.
- Assessment COVERAGE still does not reach regularly all system segments. There is a need to systematize application of assessments in preschool and high school.
- DELIMITATION of each of federal and state assessment performers' attributions is still to be regulated; a common organ for their coordination and collaboration is still to be created.
- The boards of assessment TRAINING is incomplete in certain conceptual and technical matters, particularly in some states.
- The DIFUSION of information is still insufficient, especially with respect to education performers and students' families. In general, the great amount of quality data is disregarded when it comes to educational policies and practices planning (including the academic segment) (See Section V.1.3).

In the first place, it is reasonable to follow more ambitious and specific **objectives**, given the current favorable development of national assessment, in two axes. A horizontal axis referring to the scope of issues and dimensions assessed. Mexico has greatly developed in some education issues, particularly in student achievements. Nevertheless, it is necessary to include assessments of important issues such as quality of learning and human resources, system management, and design and implementation of policies and programs, as well as their impact on education and society as a whole. Even students' achievements could be evaluated in aspects comprising more than their quality of learning and curricula abilities. For instance, the formation of values, the development of life skills and social interaction, and the social and individual impact of the learning experience should be evaluated.

The vertical axis implies a more precise estimation of school impact on the students' educational trajectories, and on the acquisition of knowledge and abilities, among other issues. More emphasis should be given on the identification of mechanisms producing these effects, i.e. associated factors, in order to design more effective education policies.

To this end, it is imperative to advance in **schools and teachers'** assessment, because the instruments with which this is at present performed are still not fully developed. An assented conceptual and methodological apparatus by means of which to exactly assess school management characteristics, school and classroom environment, educators' expectations, ideas and pedagogical methods. On the other hand, the connection between school and its surrounding community is still missing.

The above is directly associated with the quality of the **instruments** used to obtain information. Special attention, apart from the learning tests, should be given to the background questionnaires for students and to the questionnaires for principals and teachers. Because of the lack of clear theoretical frames of reference, the questionnaires from all of the *Estándares Nacionales* tests applied until 2003 showed considerable differences amongst them. The EXCALE tests of the INEE have made significant progress in this matter, hereby improving the prospects of comparability and contextualization of findings. However, general consent on the optimal use of certain scales must be reached —some problems on the levels of response to certain crucial items persist. Nevertheless, to improve quality of the measurement instruments does not imply a direct improvement in the assessment. Assessment refers to comparing measurements to relevant benchmarks suiting local circumstances, though at the same time ambitious. Therefore, a common agreement on which benchmarks should be used will become a more pressing issue as national assessment develops.

The **coverage** of assessments needs to be extended so as to coordinately encompass all the system segments. Mexico has still to devise preschool and high school systematic external assessments, similar to those for basic education.⁵¹ The broadening of range of levels and domains assessed will entail a rigorous definition of indicators, test elaboration, and the establishment of standards.

⁵¹ The INEE will start applying, in 2007 and 2008, the EXCALE tests for preschool and high school with a three or four year span between each application.

Institutionally, **articulation and definition of functions** among the various performers in charge of assessment have to be improved, in order to bring all the initiatives together into a true system. Assessment institutions control separately their activities according to internal regulations. However, there are neither institutions nor regulations specifying their competency with regard to a broader perspective. There is also need for an organ through which these performers may coordinate their efforts and increase their results.

Finally, it is essential to improve **training and professional development** of boards involved in the different stages of the assessment process, particularly in the states. Currently, most of the *AEE* operate as efficient organs for application of tests. Nevertheless, they lack the competency they need to develop complex assessments autonomously or to undertake technically elaborate analysis of test results. An important part of the personnel in charge of these tasks has not the required training, and there is also considerable labor instability.

V.I.2 Necessary Improvements on International Assessments

The participation in international assessments has represented a great opportunity to improve the national capability in this matter. These assessment experiences have also represented a great opportunity for improving assessment human resources in the country. However, it does not in itself guarantee assessment quality. Tests in which Mexico has participated have occasionally shown certain problems. It is crucial to point these out because, to the extent in which Mexico increases its participation, the tests should better their quality and rigor and preclude the errors in previous applications.

As regards the **TIMSS**, the most evident fault of Mexico's participation in the 1995 application was the decision to not publish the results. This hindered the profit of such an important effort. The decision was the result of the prevailing political and institutional climate, which, after a decade, one could say, has been considerably reverted at federal level. Nevertheless, the national assessment system should be watchful so as to avoid impeding diffusion of negative consideration of results. Assessment must be understood as a means for improving quality, rather than for judging or punishing certain performers.

With respect to the application of the tests, it is interesting to note that, in 2003, the INEE conducted a study on the translation of questions used for the TIMSS (Solano y Backhoff 2003). It showed that 36% of the questions were not correctly translated. This should draw our attention and serve as an incentive for the active participation of other countries in the writing and revising of tests, which, in turn, should help prevent bias.

The **LLECE** was the first regional assessment experience, so the 1997 application was not altogether satisfactory. Some of the participant countries did not report results, while in other cases the results divert from the regional media in an unusual manner. This is indicative of certain flaws in international supervision. In the specific case of Mexico, the application of LLECE was deficient in some matters, hence the possibilities of analysis were reduced and, consequently, the number of studies on

LLECE particular data was restricted⁵². The background questionnaires were not available in certain states, some instruments were not applied to a significant percentage of schools, and the codification of data presented errors. The complexity of the LLECE experience was probably a reason for these flaws: besides the national sample, tests were applied in thirteen state samples, requiring a great coordination effort.

V.I.3 A Matter to be Improved in All Assessments: Results Diffusion and Use

Although the efforts carried out in recent years to **diffuse** national as well as international assessments results can be noted, it is evident that a more regular and appropriate flow of information should be fostered, so that, both, education performers and the rest of society have access to it. Information on this matter is currently available in a very heterogeneous manner: educational authorities are properly informed by institutes in charge of assessment, through presentation and discussion of results organisms, but, as one descends the hierarchical structure, the flow of information becomes scarce, irregular, fragmentary, and likely to be isolated and out of context.

This situation is caused, in part, by the relative absence of norms and institutional mechanisms for diffusion of results. As a consequence, there is a want for guidelines clear enough to produce the necessary knowledge for the interpretation and use in basic and intermediate levels of results. Because of this, a certain detachment towards results seems to persist. When they are disclosed nationally or in the states, they may not be significant for specific needs of any given municipality schools.

Finally, the general **use** of information is still insufficient. The large amount of data produced per year is not fully used by the education authorities, supervisors, principals, and teachers. Both the decision making and the daily educational procedures could take advantage, in many ways, from results and assessment instruments, but they seldom do so. Neither does the academy make thorough use of the information. This should draw one's attention in face of the enormous set of educational problems needing research. Although essential for building information, the manufacture of annual reports by assessment organisms is not enough for understanding these problems and solving them.

V.2. Progress and Accomplishments in Assessment

The aforementioned issues must not conceal the fact that, since the early nineties, the Mexican system for assessing education has shown notorious progress. Starting with the fact that education authorities have assumed the essential role that assessment plays in the design of effective education policies. This resolve has been trans-

⁵² A complete associative type research based on data obtained from Mexico has been produced with the sponsorship of the INEE (Cervini 2003). It presents several comparisons between the averages of state results, between urban and rural strata, between the assessed grades, between private and public services, and among schools. A HLM analysis to identify the individual, compositional school, and state factors associated with results of tests was also produced.

lated in institutional and economical support for these efforts. These should be considered as a group of significant advances toward the consolidation of a *culture of assessment*, which has been characterized not only by the quality of its methods, but also by the range of participation and by transparency and extent of results diffusion.

Box 5.2

- Attention and promotion. The educational authorities have realized that assessment is essential for the creation of efficient education policies. Consequently, institutional and financial support has been increased.
- Scope, regularity, and plurality. Assessment has extended to all education system segments and programs. The systematization of the applications and the multiplicity of performers are noteworthy.
- Quality and professionalism. The relative independence and commitment of assessment institutions, together with the incorporation of professional teams for developing assessment, have contributed considerably to the betterment of quality. Moreover, they have increased reliability of results before the education performers and society as a whole.
- Range of diffusion. Nowadays, the results of assessment are more amply delivered to education performers and to the public opinion than in past decades. Important efforts are made so that the results can be properly interpreted, and system reports rendering has been improved.
- Positive attitude toward assessment. Gradually, the assessment performers have stopped regarding assessment as a threatening activity (i.e. its results might be used against them). This change has been propitious for the institutions' willingness to develop all of the stages involved in the process.

Firstly, the assessment scope has extended significantly. Assessments are currently applied in all of the education system segments, although their quality and systematic features are heterogeneous. The essential programs management and results, such as those of the CONAFE or the *Programa Escuelas de Calidad*, are assessed as well. This has meant an increase in the Mexican education situation general knowledge, and in the capacity for making more efficient decisions with regard to the educational programs.

Another positive matter refers to variety of issues assessed. Not only are the basic indicators of the system functioning taken into account (rates of grade repetition, withdrawal from school, promotion to the following grade, and final efficiency), but other aspects, such as the quality and equity of learning in different domains, certain educational processes, and the setting where they take place, are increasingly being covered as well.

The regularity with which the data is collected, especially that coming from basic education, but also from high school, is worth mentioning. Also noteworthy is the

participation in the international learning assessments; particularly the PISA, since by 2006 it will be applied for the third consecutive time in Mexico. All this makes evident the considerable stability, systematization, and independence achieved by assessment in Mexico; the mentioned stability is a solid foundation for the projection of greater efficiency and integration of the national system of assessment.

One more positive point is the assessment performers' **plurality**. The education assessment system is currently a competency not exclusive of a centralized authority—many national (the DGE, the INEE), state (the AEE), civil (like the CENEVAL), and university (such as the *Universidad Nacional Autónoma de México*, UNAM) institutions participate somehow in the assessment process.

The significant development which has taken place in the **training** of national assessment teams is directly associated with this. Although in the states the advances in this matter are fewer, as the authorities become aware of the need for professional and stable assessment teams, a gradual improvement in theoretical and technical competencies can be observed in some of the states. Since its beginnings, assessment in Mexico has become increasingly **professional**; especially within national institutions, in which experts critically examine the assessing processes, in order to improve their quality. In addition, many Mexican and foreign specialists are convened for researching the tests results.

As a consequence of the foregoing and the presence in high rank international experiences, the conceptual and technical quality of assessments has improved. If the present situation is compared with the existing one fifteen years ago, it is evident that assessment nowadays can count on more complex, reliable, and validly theoretical, methodological, and statistical tools⁵³. This has notably increased assessments level and has contributed to the understanding of conditions under which schools operate and the processes leading to learning.

Likewise, the work of the national institutions in charge of assessment has permitted the construction of **a system of education indicators**. Using basic statistics in respect of the system (assembled by the SEP with the information gathered from schools through a census format) and a variety of other sources of data, it has been possible to devise, in a short period of time, indicators that reflect substantive concepts for education assessment⁵⁴. Designing the indicators implicates a complex process: not only do theoretical matters have to be taken into account, but also the information has to be refined. One can never consider it is finished, rather one should think of it as a dynamic event which evolves in accordance with the challenges posed upon education at all times.

⁵³ Since it was founded, the INEE has endeavored to develop quality instruments and procedures, which have rendered more valid and reliable learning assessments. The manufacture of tests and background questionnaires is the responsibility of an ample multidisciplinary team of specialists. The samples used permit inferences to be made on the national and state scale, and according to the different strata and varieties of instruction. The application procedures are strictly supervised so as to prevent loss or alteration of information.

⁵⁴ See Panorama Educativo de México. Indicadores del Sistema Educativo Nacional, INEE (2004). It presents around 500 pages of indicators separated in a number of ways; a definition of each of these is given, as well as a reference to the method for calculating them.

Sensible advances concerning the diffusion of results have been made. In the past decade, the results of assessments have begun to be divulged among education performers and society as a whole through a number of publications. Together with this, the convenience for posting information on internet has meant another means of diffusion. Thus, the basic tabulations of the assessments performed by the DGE, CENEVAL or CONAFE can be consulted. One of the main concerns of the INEE is to spread results, and so it prints and posts on its web page reports and investigations based on national and international tests; it also discloses its theoretical and technical assessment principles, and, as a pioneer initiative, it allows all public access to its micro-data bases of tests, so that those interested can carry out independent information analyses.

Finally, Mexico's regular participation in the **PISA** has allowed the country to play a more active role. Some of the first experience deficiencies in 2000 have thus been corrected. Chart V.1 shows the process Mexico has undergone, in a five year period, from passive participation focused on application of tests to a more involved participation.

CHART V.1: PROGRESS IN THE PARTICIPATION IN INTERNATIONAL TESTS: THE CASE OF PISA

| | |
|-----------|--|
| Pisa 2000 | <p>Minimum participation (restricted to test application): Null participation in the writing and translation of items Application was limited to a national sample Scarce diffusion and inadequate interpretation of results Basic analysis of results</p> |
| Pisa 2003 | <p>Greater participation: Null participation in the writing and translation of items Application included national and representative samples of each state Diffusion of results was contextualized so as to improve their interpretation Results were, nevertheless, not used in the decision making on educational policy Basic analysis of results</p> |
| Pisa 2006 | <p>Full participation: Participation in the writing and translation of items Representative samples of states will be again included Participation in sampling and correction of tools Diffusion of results will seek maximum coverage, and influence decision making in all segments of the education system A complex analysis of results will be performed, and data advantages will be maximized</p> |

V.3. Summary

Bearing the above in mind, it can be expected for assessment in Mexico to become consolidated in the future as a quality, participatory, and accepted activity, which will be required for decision making on education issues at the higher and intermediate segments of the system, as well as within schools. The enhancement of the national assessment system, apparent in all of the matters considered, and the challenges it has still to tackle are not insurmountable.

Concerning the challenges to be faced, it must be realized that the problems we have previously dealt with are foreseeable when it comes to the articulation of a process as complex as the education assessment in a large country, which supplies multiple services and can count on multiple performers to gather information. The endeavor, as it is so recent to develop a true, efficient, and quality system of assessment, must also be considered, for it explains partly the persistence of problems from previous decades.

Chart V.2 summarizes the evolution of the main spheres of the national system of assessment during more than two decades. The first stage of evolution comprises the eighties and nineties, when the incipient character of assessment was accountable for many of its flaws at the time. The second stage comprises the present situation, in which certain evident advances have been accomplished, although there are many remaining to be attained. The last stage shows the features of the expected assessment system to be developed in the near future —thorough links and collaboration among performers, quality of tests set in a system that works well, complexity of analyses, ample diffusion, optimum use of findings, and an excellent competency of assessment boards.

CHART V.2: THREE STAGES OF NATIONAL ASSESSMENT

| | Articulation System | Quality of tests | Analyses | Diffusion and use | Training |
|--------------------------------------|--|---|--|--|---|
| Stage I | <ul style="list-style-type: none"> -Not systematized or inefficient assessments -Lack of a national system of indicators -Scarce cooperation among performers | <ul style="list-style-type: none"> -Uncertain or inexistent theoretical frame of reference -Restricted assessment -Scarce attention to context -Simple scales -Results not likely to be compared | <ul style="list-style-type: none"> -Basically descriptive use of primary statistical techniques | <ul style="list-style-type: none"> -Nearly null diffusion (political reasons) -Results are not used to design policies | <ul style="list-style-type: none"> -Scanty competency, both federally and in states -Null use in schools |
| Stage II | <ul style="list-style-type: none"> -Regular assessments, higher efficiency Base of a national system of indicators -Frequent cooperation among performers | <ul style="list-style-type: none"> -Solid theoretical frames of reference -Amplification of assessment scope -Systematic attention to context -Complex scales | <ul style="list-style-type: none"> -Descriptive and associative, they identify factors and processes associated with achievement | <ul style="list-style-type: none"> - Ample diffusion through different means -Public interpretation not always accurate -Occasional use, but not systematic, for the design of policies | <ul style="list-style-type: none"> -Improvement of capacities, federally and in some states -Assessment supervised by professional teams -Training activities in states -Limited use in schools |
| Stage III (prospected future) | <ul style="list-style-type: none"> -Integrated and efficient assessment system -Complex and dynamic national system of indicators -Permanent collaboration | <ul style="list-style-type: none"> -Explicit and solid theoretical frameworks -Ample coverage which transcends learning -Results comparable through time | <ul style="list-style-type: none"> -Complex, conforming to the type of object (multilevel, longitudinal) -Supervised by multiple performers depending on necessities | <ul style="list-style-type: none"> -Ample diffusion and adequate for the needs of all performers -Implemented in all segments to improve education quality | <ul style="list-style-type: none"> -Assessment supervised by proper professional teams for all segments -Systematic training of principals and teachers for self-assessments |

VI. Future plans and recommendations⁵⁵

The purpose of this section in this report is to suggest recommendations seeking education assessment systems improvement. We would like these suggestions to be useful, not only for Mexico, but also for the rest of the E-9 member countries.

It is evident that the concept of quality should be the main objective of education assessments. Thus, it is necessary to outline what it is understood by *quality*, even though there are multiple perspectives from which to define it. (Edwards 1991) In this report a multidimensional definition is introduced, in order to take into account the complexity of the issue. The Mexican vision of a quality assessment system includes the following interrelated aspects:

- Relevancy: The established curricula should take into account society's socio-economic, cultural and philosophical needs.
- Internal efficiency: An education system should achieve maximum levels of access, permanency, and on time termination.
- External efficiency: An education system in which students having finished a certain stage in college achieve the knowledge and abilities established in the curricula.
- Pertinence: The curricula and the pedagogic processes should take into account the cultural, social, and economic students' situation.
- Impact: The acquired knowledge by students should have an enduring and significant impact in their life and in society.
- Equality: The education system should take into account the country's socio-economic differences and it should develop strategies and policies in order to compensate disparities and create equal education opportunities for all.
- Efficiency: The utilization of human and physical resources should be optimal and sufficient for achieving education goals.

From this concept of quality it can be inferred that a good education assessment cannot be limited to measuring results. To assess is to compare these results with relevant benchmarks or normative standards in order to make a value judgment. Thus, a good education assessment should have the following characteristics:

- **To include a multidimensional quality assessment concept.** In order to study other dimensions apart from student achievements, it is necessary to develop an

⁵⁵ This chapter resumes concepts and proposals developed by Felipe Martínez Rizo (General Director of the National Institute for the Evaluation of Education in the following publications: *La calidad de la educación básica en México*, 2003, INEE 2003); "Sobre la difusión de resultados por escuela" (Cuadernos de Investigación, N° 18, INEE); "La evaluación educativa: ¿oportunidad o peligro? A propósito del trabajo del Instituto Nacional para la Evaluación de la Educación" (Presented in the "VIII Congreso Nacional de Evaluación Educativa" Hermosillo, Mexico, November 2005).

exhaustive, articulated, and conceptually solid national system of indicators. The work of INEE in this regard is a very important stride in consolidating this system and in considering other dimensions in education assessment (vide chapter 3). Nevertheless, there is still the need to create indicators for the administrative system processes, for the school management processes, and for the pedagogic processes in the classroom. In regard to student achievement indicators, there is still room for improving mid-term and long-term impact indicators, especially in the economical and socio-cultural sphere.

- **To use pertinent standards.** Use of right standards is a crucial aspect of any assessment for it to become a meaningful tool in policy decision making throughout the education system. An inappropriate comparison can lead to an unjustified pessimism –or to over-optimism– when interpreting results. Thus, any comparison between E-9 countries and developed ones should be correctly and socio-culturally contextualized. A proposal on this matter will be to work with different types of standards: i) optimal or ideal references –i.e. “best practices”–, ii) mean references –i.e. mean results of countries with similar socio-economic background–, and iii) comparing with the minimum acceptable standard.

- **To use technically valid methods and instruments.** Assessment processes, methods, and instruments should be designed, and supervised by experts. It will also be advisable to make all methodological decisions public. A high quality assessment is one that meets high standards in technical and methodological instruments.

- **To have efficient procedures.** An efficient use of resources for assessment is necessary. It is more important for E-9 countries where an annual census type assessment is costly and impractical. General and regular diagnostics of the education system can be done with national and state samples. Also, attention should be paid to maximize resource allocation to organisms by identifying and avoiding double tasks.

- **Being objective when making judgments.** Reasonable education goals can only be defined when judgments drawn from assessments are able to balance the strong and weak system issues. It is therefore proposed that in order to have a well contextualized system diagnostic, it is necessary to assess different school cycles on a regular basis. Thus, tendencies and the consistency of results can be better assessed.

- **A transparent, broad and timely diffusion of results.** Analysis of information should be efficient, and should balance celerity and quality for it to be useful in policy decision making. Diffusion should be available to all education system actors –including parents and society. Assessment credibility and legitimacy depends on making diffusion of results a mechanism for system accountability.

For these objectives to be achieved in Mexico –or any other country having a large population and a complex education system–, it is requisite that: (i) the assessing organisms be coordinated into an ample system, (ii) the scope of assessment covered by institutions involved be defined, (iii) tests and indicators quality be ensured, and (iv) the results be diffused and used.

I. Creation of an assessment system. Because of the size of the Mexican system of education and the diversity and complexity of the services it renders, an assessment policy fusing four basic features —*complexity, decentralization, articulation, and collaboration*— is recommended.

- **Complexity** derives from the need to cover all system segments. Assessment should be performed through methods and according to standards suiting each segment characteristics and objectives and system modality. Moreover, different assessment strategies should be implemented according to assessment goals. A normative type of assessment is needed for entry type examinations, and a matrix type of examination is needed for assessing the overall performance of students in accomplishing the established curricula.
- To develop an assessment matching these characteristics, it is indispensable to seek its **decentralization** through multiple performers' *participation* in the various segments. Active involvement of national and state educational authorities, as well as of public and private institutions, of the intermediate sectors together with the school principals and teachers should be prompted in countries with a large population and complex education systems. Also, the participation of independent academicians and researchers to assess specific matters should be sought.
- Decentralization should be completed with the proper **articulation** of all activities, by seeking their mutual feedback and the efficient use of resources at hand. For this to happen, it is necessary to create institutional mechanisms ensuring that objectives and results be complementary. In this sense, it is advisable to institute a *national council for education assessment*, to which coordination responsibilities could be referred to, integrated by all areas of assessment and education members.
- In addition, it would be expedient to further the direct **collaboration** between system performers. Free access to information and to instruments devised by each institute (for the rest of them) is an essential condition that should attain institutional assurance. The *DGEP*, as an assessment organism which authorities in states control, should continue to encourage the schools self-assessment capacities, by using specialized publications to spread current attempts and through the implementation of training courses for school supervisors and principals. It is particularly advisable that the *INEE*, through training activities, continues to support the *AEE* so they can develop sufficient assessment tools.

II. Delimitation of Assessment Responsibilities to Ensure Efficiency. Another critical subject for developing a national system of assessment is to delimitate responsibilities corresponding to its organs. This will avoid the overlapping of activities they perform, and will prevent the inappropriate use of results. Since the tasks demanded for assessment address different objectives, it is advisable to clearly identify the areas of competency of each institution and the type of assessments they will be responsible for, thereby resorting to specific normative frames. Such delimitation of responsibilities is directly associated with the methods for collecting information, the modes for diffusing it, and the assessment criteria used by each institution.

- The INEE is responsible for the **external** assessments on education quality, either for the system as a whole or for an important part of it. The performing of these diagnoses does not require gathering information in a census manner from all system grades. One should rather use robust sample designs with representative samples of key school years, and design a rotating assessment cycle⁵⁶. Although a matrix design does loose individual precision, it actually is useful for assessing the whole education system and for identifying specific issues at national and state levels.

- **Issues which require census-type information.** Nevertheless, census-type information is essential to estimate the material resources and infrastructure of each school; from these, in turn, the needs of each school can be calculated in detail. The *SEP*, through the *DGEP*, could design learning tests for **massive** use from which results on each school, group, and student could be derived. Individual, as well as school certifications can be based in this information. It would also be suitable as feedback for the basic educational processes for schools and educators, and would aid the latter when reporting results to families.

- **Collaboration of the Áreas Estatales de Evaluación.** The *AEE* should assume a more active role in all assessment organisms by participating in the design and application of census and sample tests, and by ranking and analyzing its results. These actions will, in turn, enable the *AEE* to become active participants in creating education state policies. It is therefore crucial for the *AEE* to seek the constant training of their staff, in order to guarantee continuity in their assessment efforts.

- The unity of the coordinated efforts exerted by the various national and state performers should contribute to shape a **national system of indicators** into an axis for education diagnoses. This system of indicators: (i) should essentially be ample enough to encompass all areas of interest (basic statistics, levels of learning, human and material resources of the schools, operation costs, etc.), and (ii) should be founded on a rigorous conceptual framework, and should be oriented by those standards by means of which education will be assessed.

III. Improving quality assessment. To continue with the process of perfecting the validity and reliability of assessments, it is imperative to be up to date on the technical and methodological advances in different national and international spheres. In this sense, it is necessary to work in closer collaboration with academicians and with experts' teams who can supervise processes and development of instruments. It is also strategic to seek a more active role in international assessments: it will foster interchange of knowledge and experiences which will be useful for improving national procedures.

- With respect to external education assessments, it would mean great progress for Mexico to contrive tests that would allow for a more extensive evaluation of edu-

⁵⁶ Many reasons justify the use of sample designs over census type designs for an overall education system assessment. In the first place, the latter are considerable more costly than the former. Secondly, census type assessments tend to have design errors that can be minimized with sampling, i.e. systematic exclusion of cases, lack of controls, etc. Thus, if correctly designed, the results obtained by a sample design can be as good, or better, than census type examinations.

cation results. An integral education diagnosis should consider the assessment of life skills capabilities (i.e., health, reproductive health); of social interaction and civic participation (i.e., defense of rights, conflict resolution). A good starting point for assessing a more ample spectrum of issues could be the consented definition of concepts and standards –in the case of Mexico, the objectives defined in the 2001-2006 National Education Program and stated in the General Education Law (LGE) could become this starting point.

- Notwithstanding, quality assessment of education involves integration of student and school performance results with information about context, resources, and classroom processes –i.e., pedagogic practices, learning opportunities, teachers expectations about student achievement, classroom climate. The study of associated factors in student achievements, and the study of those factors that can be modified by policies should be promoted by means of performing more extensive assessments, and promoting qualitative research. These will improve our understanding of these processes and its link with the social context.
- To integrate assessment with contextual information permits to estimate more accurately the **school processes added value**. One strategy which would represent a qualitative improvement would be the creation of longitudinal tests for students. It would serve to deepen knowledge not only of learning acquisition processes, but also of mechanisms associated with failing and desertion from school.
- The public diffusion policy of the conceptual frames of reference and the methodological criteria which was used, based on **technical reports**, should be continued and fostered. All stages constituting the assessment process should be subject to inspection by educational authorities and agents, teams of experts, and society as a whole.
- Finally, a point to be underscored and which is not a short run endeavor, is quality assessment, meaning by this an assessment system which accurately measures performance and school processes. E-9 countries' demographic, geographical, and social conditions, as well as limited public resources, political inertias, and inherited organizations, do not always make this process easy. Nevertheless, with moderate resources and in a short period of time a basic system of indicators can be developed for obtaining a general view of system conditions. Countries having just started building an assessment structure could benefit from developing this task.

IV. Proper and ample diffusion. It is necessary to move forward, as well, in diffusing results. Educational authorities have a fundamental role in this, as they should become agents who demand quality information which can be used effectively for policy planning. Teachers and principals should demand access to appropriate information fitting their needs of self-assessment and pedagogic innovation. Fostering an institutional culture is needed, where assessment is not perceived as a punishment but as an opportunity to improve the education system.

- As for the institutions in charge of assessment, they should spread, as extensively as possible, their obtained results, and not just report them to authorities. Mo-

reover, the example set by the *INEE* should be followed; micro-data of tests which have been applied should be made available so it can be analyzed independently (as long as assessed persons' confidentiality is not jeopardized).

- It is important to devise institutional mechanisms so that information can reach all segments and can be properly used. National and state assessment organs should implement those training programs to interpret and exploit results addressed to supervisors, principals, and teachers. The assessment *language* should become *common* to all agents, thus ensuring both fluent communication and collaboration.
- Therefore, it is necessary that diffusion be accompanied by conceptual elements and explanations to make its correct interpretation easy. Considering either the feedback of policies or the reports before society, the results should be significant for agents, and should avoid inadequate use, such as the construction of out of context rankings.
- Finally, assessment organisms should develop a lasting communication relationship with the media by means of training mechanisms of their personnel, in order to improve assessment results interpretation quality and treatment of information derived from them.

Final Comments

Education assessment in Mexico has noticeably improved its coverage, quality, connection, and diffusion. At present, not only instruments allowing valid and reliable information obtainment can be counted on, but also the results have gradually begun to extend among performers of education and society. This has fostered a growing interest in assessment as a means for ameliorating education quality and as a mechanism for accountability. By the same token, Mexico has successfully taken part in international assessments, thereby becoming linked to prestigious experiences and approaches. Many private and public institutions have contributed to the significant betterment towards harmonizing a genuine system of assessment.

The progress achieved in assessment should not convey the idea that Mexico has reached its goals. Some system segments and varieties have yet to be assessed more thoroughly. It is necessary, besides, to increase the number of areas assessed, both in respect to students, schools, and teachers. The participation of a variety of performers, especially of the *AEE*, should be encouraged, in order to make the articulation of their endeavors certain and their collaboration constant. The means for collecting information should improve diligently; so that gathered data is valid, reliable, and comparable. For this purpose, the concurrence of specialists is required. Finally, it is also recommendable that diffusion of results be amplified and institutionalized, so that they may be significant to performers and to, and their misuse prevented.

The course Mexico has taken up to now may teach valuable lessons on how it is possible to overcome the many challenges that large countries with limited economical resources have to face for assessing education. Achieving goals still to be met will depend on the adherence to the lines of action already fixed and the strengthening of all performers' commitment to quality of assessment.

References

- ANTONIO, R. y E. García.
(2003) *Acciones de Evaluación en las Instituciones de Educación Media Superior*. INEE, México.
- ARNAUT, Alberto.
(1998) *La federalización educativa en México 1889 – 1994*. SEP – Biblioteca para la actualización del maestro. DF, México.
- BACKHOFF, E. y G. Solano.
(2003) *Tercer Estudio Internacional de Matemáticas y Ciencias Naturales (TIMSS): Resultados de México en 1995 y 2000*. INEE, México.
- BRACHO, T. (coord.), con la colaboración de G. Mendieta y A. Camacho.
(2004) *Cuarta Evaluación Externa del Programa Escuelas de Calidad (PEC)*. Centro de Investigación y Docencia Económicas. México, D.F.
- CABRERO MENDOZA, Enrique; C. Santizo y C. Nájera.
(2003) "Improving Accountability and Transparency in Schools: The Mexican Program of Schools of Quality." Documento de Trabajo Número 140. Centro de Investigación y Docencia Económicas. México, DF.
- CEPAL (COMISIÓN ECONÓMICA PARA AMÉRICA LATINA Y EL CARIBE).
(2005) *Anuario Estadístico de América Latina y el Caribe, 2004*. Santiago de Chile, Chile.
- CERVINI, R.
(2003) *Factores asociados al aprendizaje del lenguaje y las matemáticas en 13 estados de México. 3º y 4º grados de Educación Básica*. INEE, México.
- CONSTITUCIÓN POLÍTICA DE LOS ESTADOS UNIDOS MEXICANOS.
(2002) *Última reforma aplicada el mes de noviembre de 2002*. Diario Oficial de la Federación. México, D.F.
- EDWARDS, V.
(1991) *El concepto de calidad de la educación*. UNESCO / OREALC. Santiago de Chile.
- EZPELETA, J. y E. Weiss.
(1996) "Las escuelas rurales en zonas de pobreza y sus maestros: tramas preexistentes y políticas innovadoras". *Revista Mexicana de Investigación Educativa*. Vol. 1, Nº1 (enero-junio): 53-69.

- EZPELETA, J. y E. Weiss.
(2000) *Cambiar la escuela rural. Evaluación Cualitativa del Programa para Abatir el Retazo Educativo*. Departamento de Investigaciones Educativas (DIE) del CINVESTAV. México.
- FERNÁNDEZ, T.
(2003a) *Determinantes sociales y organizacionales del aprendizaje en la Educación Primaria de México: un análisis de tres niveles*. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa (INEE). INEE, México.
- FERNÁNDEZ, T.
(2003b) *Perfiles de las escuelas primarias eficaces en México (2001)*. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa (INEE). INEE, México.
- FERNÁNDEZ, T.
(2003c) *Perfiles de las Escuelas Primarias Eficaces de México (2001)*. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa (INEE). INEE, México.
- FERNÁNDEZ, T. & C. Midaglia.
(2003) *Quiénes y cómo usan los informes generados por los sistemas de evaluación de aprendizajes en la educación primaria. Los casos de México y Uruguay*. Programa de Promoción de la Reforma Educativa en América Latina PREAL.
- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2003a) *La Calidad de la Educación Básica en México*. Primer Informe Anual, 2003. (INEE). SEP, México.
- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2003b) *Panorama Educativo de México 2003*. Indicadores del Sistema Educativo Nacional. INEE, México.
- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2004a) *Plan Maestro de Desarrollo 2004-2012*. INEE, México.
- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2004b) *La Calidad de la Educación Básica en México 2004*. INEE, México.
- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2004c) *Panorama Educativo de México 2004*. Indicadores del Sistema Educativo Nacional. INEE, México.

- INEE (INSTITUTO NACIONAL PARA LA EVALUACIÓN DE LA EDUCACIÓN).
(2005) *Plan General de Evaluación del Aprendizaje. Proyectos Nacionales e Internacionales*. INEE, México.
- INEGI (INSTITUTO NACIONAL DE ESTADÍSTICA, GEOGRAFÍA E INFORMÁTICA).
(2000) *XII Censo General de Población y Vivienda. Tabulados Básicos*. Aguascalientes, México. Algunos tabulados disponibles en Internet. Consultado el 5 de julio de 2005 en: www.inegi.gob.mx
- INEGI (INSTITUTO NACIONAL DE ESTADÍSTICA, GEOGRAFÍA E INFORMÁTICA).
(2002) *Encuesta nacional de ingresos y gastos de los hogares*. Aguascalientes, México.
- INEGI (INSTITUTO NACIONAL DE ESTADÍSTICA, GEOGRAFÍA E INFORMÁTICA).
(2004) *Anuario estadístico de los Estados Unidos Mexicanos*. Aguascalientes, México.
- INEGI (INSTITUTO NACIONAL DE ESTADÍSTICA, GEOGRAFÍA E INFORMÁTICA).
(2005) *La diversidad religiosa en México*. Aguascalientes, México.
- LATAPÍ, Pablo.
(2004) *La SEP por dentro. Las políticas de la Secretaría de Educación Pública comentadas por cuatro de sus secretarios (1992 – 2004)*. Fondo de Cultura Económica. México, D.F.
- LATAPÍ, Pablo.
(2004b) "La política educativa del Estado mexicano desde 1992". En: *Revista Electrónica de Investigación Educativa*. Vol. 6, N° 2, 2004. Disponible al 7 de abril de 2005 en: <http://redie.uabc.mx/vol6no2/contenido-latapi.htm>.
- LGE (LEY GENERAL DE EDUCACIÓN).
(1993) Decretada por el Congreso de los Estado Unidos Mexicanos el 13 de Julio de 1993.
- LOERA, A.
(2005) *Cambios en las escuelas que participan en el PEC. 2001-2004*. Evaluación Cualitativa del Programa Escuelas de Calidad. Heurística Educativa.
- MARTÍNEZ RIZO, Felipe.
(2001) "Las políticas educativas mexicanas antes y después de 2001". En: *Revista Iberoamericana de Educación*. Número 27. Setiembre – Diciembre de 2001. Organización de los Estados Iberoamericanos.
- MUÑOZ-IZQUIERDO, C.; A. Márquez; A. Sandoval; H. Sánchez.
(2004) *Factores Externos e Internos a las Escuelas que Influyen en el Logro Académico de los Estudiantes de Nivel Primaria en México, 1998-2002*. Análisis Comparativo Entre Entidades con Diferente Nivel de Desarrollo. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa (INEE). INEE, México.

MUÑOZ-IZQUIERDO, C. [Núñez Gornés, María de los Ángeles y Sánchez Pérez, Hídalía (Colabs.)].

(2004b) *Educación y desarrollo socioeconómico en América Latina y el Caribe. Desarrollo de una propuesta para la construcción de indicadores de los efectos de la educación formal en la economía y la sociedad*. México. Universidad Iberoamericana.

OECD (ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT).

(2004a) *Education at a Glance. OECD Indicators 2004*. (OECD), Francia.

OECD (ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPEMENT).

(2004b) *Learning for Tomorrow's World. First Results from PISA 2003*. OECD.

PALAFIX, J. C.; J. Prawda y E. Vélez.

(1992) *Primary School Quality in Mexico*. Banco Mundial. Serie: A view from LATHR, N° 33.

SEP (SECRETARÍA DE EDUCACIÓN PÚBLICA).

(1992) *Acuerdo Nacional para la Modernización de la Educación Básica*. México, D.F. 18 de mayo de 1992.

SEP (SECRETARÍA DE EDUCACIÓN PÚBLICA / OEI (ORGANIZACIÓN DE ESTADOS IBEROAMERICANOS).

(1994) *Sistema Educativo Nacional de México*. Informe realizado por Germán Álvarez Mendiola. México, D.F.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(1999) *Las escuelas Públicas Mexicanas de Educación Básica*. Algunos aspectos a considerar en la autoevaluación escolar. SEP, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2000) *Distribución de los planteles públicos de educación primaria y secundaria, según el nivel de aciertos de sus alumnos en los exámenes de Carrera Magisterial*. SEP, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2000b) *Las escuelas primarias rurales y los apoyos de los programas compensatorios*. Reporte final del primer Estudio/Diplomado sobre bases metodológicas de investigación cualitativa. SEP, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2001) *Programa Nacional de Educación. 2001-2006*. SEP, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2001b) *¿Cómo transformar las escuelas? Lecciones desde la gestión escolar y la práctica pedagógica*. Segundo estudio/diplomado. Reporte final. SEP, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2002a) *La calidad de la educación en México*. Perspectivas, análisis y evaluación. Grupo Editorial Miguel Angel Porrúa. México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2002b) “¿Cómo conocer nuestra escuela? Elementos para la evaluación interna de los centros escolares”. Documento de trabajo. México, D.F.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2002c) *Qué tan buena es nuestra escuela? Adaptación de los principales indicadores de desempeño para la Autoevaluación en los Centros Escolares de Educación Básica*. SEP, México.

Secretaría de Educación Pública (SEP).

(2003a) *Reporte descriptivo de la línea de base de la Evaluación Cualitativa del Programa Escuelas de Calidad*. Heurística Educativa. Chihuahua, México.

SECRETARÍA DE EDUCACIÓN PÚBLICA (SEP).

(2003b) “*El plan de mejoramiento. Una estrategia para transformar nuestra escuela*”. Documento de trabajo. México, D.F.

SOLANA, F.; Cardiel Reyes, R.; Bolaños Martínez, R. (Coords.).

(1998) *Historia de la Educación Pública en México*. Fondo de Cultura Económica / SEP. DF, México.

SOLANO, G. y E. Backhoff.

(2003) *Aspectos lingüísticos de la traducción de reactivos TIMSS*. INEE, México.

TREVIÑO, E. & G. Treviño.

(2003) *Factores Socioculturales Asociados al Rendimiento de los Alumnos al Término de la Educación Primaria: Un Estudio de las Desigualdades Educativas en México. Análisis Descriptivo*. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa. INEE, México.

TREVIÑO, E. & G. Treviño.

Estudio sobre las Desigualdades Educativas en México: la Incidencia de la Escuela en el Desempeño Académico de los Alumnos y el rol de los docentes. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa (INEE), Secretaría de Educación Pública, México.

UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO).

2005 *Global Monitoring Report. Education For All – The Quality Imperative*.

VELÁZQUEZ, V.

(2000) "Hacia una cultura de la evaluación. 1994-2000". En: *Memoria del Quehacer Educativo. 1995-2000* (2). SEP, México.

VIDAL, R.; M. Díaz; J. Noyola.

(2003) *El Proyecto PISA: su Aplicación en México*. Cuaderno N° 9, Colección Cuadernos de Investigación. INEE, México.

ZORRILLA, M. & F. J. Muro.

(2004) *La Enseñanza Secundaria en México 2002. Una Exploración de Modelos Explicativos de Resultados de Aprendizaje y Características del Alumno, del Entorno Familiar y Escolar. (Habilidades de comprensión lectora y resolución de problemas matemáticos)*. Informe de Investigación para el Instituto Nacional para la Evaluación Educativa. INEE, México.

Acronyms of Institutions, Programs and Concepts

English

| | |
|---------|---|
| AEE | State Assessment Organ |
| ANMEB | National Agreement for Basic Education Modernization |
| ANUIES | National Association of Universities and Higher Education Institutions |
| CENEVAL | National Center for the Assessment of Higher Education |
| CEPAL | ECLAC, Economic Commission for Latin America and the Caribbean |
| CIEES | Inter-institutional Committees for the Assessment of Higher Education |
| CONAFE | National Commission for Education Promotion |
| COPAES | Higher Education Accreditation Council |
| DGEP | General Direction of Policy Evaluation |
| DGPpP | General Direction of Planning and Programming |
| EVEP | Elementary Education Assessment Program |
| EXANI | National Entry Examination |
| EXCALE | Education Quality and Achievement Exam |
| IDANIS | Diagnostic Instrument for First Year Secondary Education Students |
| INEE | National Institute for the Evaluation of Education |
| INEGI | National Institute of Statistics, Geography, and Information Technology |
| LGE | General Education Law |
| LLECE | Latin American Laboratory for Assessment of the Quality of Education |
| PARE | Program to Abate Educational Backwardness |
| PAREB | Program to Abate Educational Backwardness in Elementary Education |
| PEC | Program for Quality Schools |
| PISA | Programme for International Student Assessment |
| PNE | National Education Program |
| SEB | Underministry of Basic Education |
| SEMS | Underministry of Higher Secondary Education |
| SEP | Education Ministry, Mexico |
| SEPE | Assessment System of Educational Policies |
| SES | Underministry of Higher Education |
| SNEE | National Assessment of Education System |
| SNTE | National Education Workers Union |
| TIMSS | Trends in Mathematics and Science Study |
| UNAM | Autonomous National University of Mexico |
| UPyEPE | Planning and Evaluation Unit |

Spanish

Lista de Siglas de instituciones, programas y términos

| | |
|---------|--|
| AEE | Áreas Estatales de Evaluación |
| ANMEB | Acuerdo Nacional para la Modernización de la Educación Básica |
| ANUIES | Asociación Nacional de Universidades e Instituciones de Educación Superior |
| CENEVAL | Centro Nacional de Evaluación para la Educación Superior |
| CEPAL | Comisión Económica para América Latina y el Caribe |
| CIEES | Comités Interinstitucionales de Evaluación de la Educación Superior |
| CONAFE | Comisión Nacional de Fomento Educativo |
| COPAES | Consejo para la Acreditación de la Educación Superior |
| DGEP | Dirección General de Evaluación de Políticas |
| DGPYP | Dirección General de Planeación y Programación |
| EVEP | Programa Evaluación de la Educación Primaria |
| EXANI | Examen Nacional de Ingreso |
| EXCALE | Examen de la Calidad y el Logro Educativos |
| IDANIS | Instrumento de Diagnóstico de Alumnos de Nuevo Ingreso a Secundaria |
| INEE | Instituto Nacional para la Evaluación de la Educación |
| INEGI | Instituto Nacional de Estadística, Geografía e Informática |
| LGE | Ley General de Educación |
| LLECE | Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación |
| PARE | Programa para Abatir el Rezago Escolar |
| PAREB | Programa para Abatir el Rezago en Educación Básica |
| PEC | Programa Escuelas de Calidad |
| PISA | Programme for International Student Assessment |
| PNE | Programa Nacional de Educación |
| SEB | Subsecretaría de Educación Básica |
| SEMS | Subsecretaría de Educación Media Superior |
| SEP | Secretaría de Educación Pública |
| SEPE | Sistema de Evaluación de Políticas Educativas |
| SES | Subsecretaría de Educación Superior |
| SNEE | Sistema Nacional de Evaluación de la Educación |
| SNTE | Sindicato Nacional de Trabajadores de la Educación |
| TIMSS | Trends in Mathematics and Science Study |
| UNAM | Universidad Nacional Autónoma de México |
| UPyEPE | Unidad de Planeación y Evaluación de Políticas Educativas |

Annex I

TABLE 1: POPULATION MEXICO, 2000.

| Age groups | Population |
|---------------|-------------------|
| 0 – 4 years | 10,635,157 |
| 5 – 9 years | 11,215,323 |
| 10 – 14 years | 10,736,493 |
| 15 – 19 years | 9,992,135 |
| 20 – 24 years | 9,071,134 |
| 25 – 29 years | 8,157,743 |
| 30 – 34 years | 7,136,523 |
| 35 – 39 years | 6,352,538 |
| 40 – 44 years | 5,194,833 |
| 45 – 49 years | 4,072,091 |
| 50 – 54 years | 3,357,953 |
| 55 – 59 years | 2,559,231 |
| 60 – 64 years | 2,198,146 |
| 65 - 69 years | 1,660,785 |
| 70 – 74 years | 1,245,674 |
| 75 – 79 years | 865,270 |
| 80 – 84 years | 483,876 |
| 85 + years | 494,706 |
| Unspecified | 2,053,801 |
| Total | 97,483,412 |

SOURCE: **INEGI**. Anuario Estadístico de los Estados Unidos Mexicanos, D.F., México, 2004.

**TABLE 2: ECONOMIC SECTOR PARTICIPATION ON GNP
(1995 CONSTANT PRICES) MEXICO, 2003**

| Economic Sector | GNP Participation |
|--|-------------------|
| Agriculture | 4,6% |
| Mining | 1,5% |
| Manufacturing | 20,1% |
| Construction | 3,9% |
| Basic Services (utilities, transportation) | 12,7% |
| Other services | 57,2% |

Source: **CEPAL**. Anuario estadístico para América Latina y el Caribe, 2004. Santiago de Chile, 2005.
Pages: 198 -203.

TABLE 3: LANGUAGES AND POPULATION MEXICO, 2000.

| Languages | Population | % of total pop. |
|------------------------------------|------------|-----------------|
| Spanish | 91,478,865 | (93,80%) |
| Náhuatl | 1,448,936 | (1,49%) |
| Maya | 800,291 | (0,82%) |
| Zapoteco | 452,887 | (0,46%) |
| Mixteco | 446,236 | (0,46%) |
| Tzotzil | 297,561 | (0,31%) |
| Otomí | 291,722 | (0,30%) |
| Tzeltal | 284,826 | (0,29%) |
| Totonaca | 240,034 | (0,25%) |
| Mazateco | 214,477 | (0,22%) |
| Chol | 161,766 | (0,17%) |
| Huasteco | 150,257 | (0,15%) |
| Mazahua | 133,430 | (0,14%) |
| Chinanteco | 133,374 | (0,14%) |
| Purépecha | 121,409 | (0,12%) |
| Mixe | 118,924 | (0,12%) |
| Tlapaneco | 99,389 | (0,10%) |
| Tarahumara | 75,545 | (0,08%) |
| Zoque | 51,464 | (0,05%) |
| Amuzgo | 41,455 | (0,04%) |
| Chatino | 40,722 | (0,04%) |
| Tojolabal | 37,986 | (0,04%) |
| Mayo | 31,513 | (0,03%) |
| Huichol | 30,686 | (0,03%) |
| Tepehuán | 25,544 | (0,03%) |
| Cora | 16,410 | (0,02%) |
| Huave | 14,224 | (0,01%) |
| Cuicateco | 13,425 | (0,01%) |
| Yaqui | 13,317 | (0,01%) |
| Other Mexican Indigenous languages | 256,737 | (0,26%) |
| Total indigenous languages | 6,044,547 | (6,20%) |

Source: **INEGI XII**. Censo General de Población y Vivienda, 2000. Tabulados Básicos, Aguascalientes, México.

TABLE 4: STUDENTS, TEACHERS, AND SCHOOLS ACCORDING TO SCHOOL LEVEL (2003 – 2004 SCHOOL CYCLE)

| Level | Sub-level | Students | Teachers | Schools |
|-------------------------------------|-------------------------|-------------------|------------------|----------------|
| Basic Education | Preschool | 3,742,600 | 169,081 | 76,108 |
| | Elementary | 14,781,300 | 559,499 | 99,034 |
| | Secondary | 5,780,400 | 331,563 | 30,337 |
| | Subtotal | 24,304,400 | 1,060,143 | 205,479 |
| Middle Education | Professional Technician | 359,900 | 31,557 | 1,626 |
| | General High School | 2,078,800 | 146,829 | 8,045 |
| | Technical High School | 1,005,000 | 63,756 | 2,267 |
| | Subtotal | 3,443,700 | 242,142 | 11,938 |
| Higher Education | Technician | | | |
| | Teachers degree | 155,500 | 17,368 | 525 |
| | University degree | 2,023,600 | 199,062 | 2,079 |
| | Postgraduate studies | 143,600 | 23,457 | 1,334 |
| | Subtotal | 2,322,800 | 239,887 | 4,568 |
| Total (academic VARIETY: in school) | | 30,070,900 | 1,542,172 | 221,985 |
| (alternative varieties) | | 1,297,000 | 36,514 | 5,489 |
| Total | | 31,367,900 | 1,578,686 | 227,474 |

Source: **INEE**. La Calidad de la Educación Básica en México, 2004. D.F., México.

TABLE 5: STRUCTURE OF THE MEXICAN EDUCATION SYSTEM

| Level | Sub-level | School years | Services |
|------------------|-------------------------|-------------------------------------|--|
| Basic Education | Preschool | 5 years | General, Indigenous, Community |
| | Elementary | 1st – 6th | General, Indigenous, Community |
| | Secondary | 7th – 9th | General, Technical, for working people, “Telesecundaria” |
| Middle Education | Professional Technician | 10th – 12 th | CONALEP, otros, |
| | General High School | 10 th – 12 th | General, Technical |
| Higher Education | Technician | Program specific | University, Technological |
| | University degree | Program specific | University, Technological, Teachers degree school |
| | Postgraduate studies | Program specific | Specialization, Masters, Ph.D. |

Source: **INEE**. La Calidad de la Educación Básica en México. Primer informe anual, 2003. D.F., México.

TABLE 6: STRUCTURE OF THE MEXICAN EDUCATION SYSTEM (NON-ACADEMIC: ALTERNATIVE CURRICULA)

| Services | Service type |
|--|--------------------------|
| Initial Education | Nursing |
| | Nursing II |
| | Parents training program |
| Adult Education | Alphabetization |
| | Basic Education |
| | Non-formal job training |
| Special Education | Handicapped |
| | Non-handicapped |
| Job Training | |
| Open system | High School |
| | Postgraduate degree |
| Indigenous Education (alternative out of school curricula) | |

Source: **INEE**. Panorama Educativo de México 2004. Indicadores del Sistema Educativo Nacional, 2004. D.F., México.

TABLE 6.A: ALTERNATIVE EDUCATION VARIETIES

| Varieties | Description |
|--|---|
| <p>Consejo Nacional de Fomento Educativo (CONAFE).</p> | <p>CONAFE is a Ministry of Education decentralized organism, and was created in 1971. Its main attributions are: a) to research, develop, implement, and assess new education varieties; b) to render services to priority educational and cultural programs and projects.</p> <p>CONAFE implemented education programs (preschool and elementary) for rural children in distant communities. The program relies on parents' help, who provide classrooms, food and lodging for instructors, and supervise sessions. CONAFE is then responsible of providing an instructor, desks and chairs, and didactic material. This education service is withdrawn from the community once a regular school is built.</p> <p>The instructors (communitarian instructors) are lower middle school graduates, usually from rural communities. CONAFE gives them a scholarship for middle education in return for their service. State CONAFE offices train the instructors.</p> |
| <p>Indigenous Education</p> | <p>Taking into account that 6.2% of the population speaks an indigenous language, the Ministry of Education implemented an Indigenous Education Program.</p> <p>In the preschool level (5 to 7 years old), its main objective is to teach children Spanish before entering into elementary school. Elementary school has a bilingual variety (with bilingual teachers).</p> <p>The Ministry of Education publishes and distributes official school books in 20 indigenous languages and six dialects, as well as a Spanish as a second language book.</p> |

Source: Secretaría de Educación Pública y Organización de Estados Americanos. Sistema Educativo Nacional de México, 1994. D.F., México.

**TABLE 7: ENROLMENT RATES & COMPLETION RATES.
(SCHOOL CYCLES, 2002-2003 & 2003-2004)**

| Indicator | School Cycle | |
|----------------------|--------------|-------------|
| | 2002 – 2003 | 2003 - 2004 |
| Elementary | | |
| Gross enrolment rate | 93,1% | 91,6% |
| Net enrolment rate | 98,5% | 98,6% |
| Dropout rate | 1,7% | 1,3% |
| Completion rate | 88,2% | 89,0% |
| Middle | | |
| Gross enrolment rate | 85,6% | 85,9% |
| Net enrolment rate | 70,1% | 72,1% |
| Dropout rate | 7,4% | 6,8% |
| Completion rate | 78,4% | 79,7% |

Source: **INEE**. La Calidad de la Educación Básica en México, 2004. D.F., México

TABLE 8: EDUCATION EXPENDITURE AS A % OF GNP (1980 – 2004).

| Year | Public Expenditure | | | | Private Expenditure | Total |
|------|--------------------|-------|-----------|----------|---------------------|-------|
| | Federal | State | Municipal | Subtotal | | |
| 1980 | 3.72 | 0.78 | 0.067 | 4.57 | 0.34 | 4.90 |
| 1985 | 3.20 | 0.59 | 0.024 | 3.81 | 0.32 | 4.12 |
| 1990 | 3.02 | 0.66 | 0.013 | 3.70 | 0.32 | 4.02 |
| 1994 | 4.58 | 0.57 | 0.013 | 5.16 | 0.28 | 5.45 |
| 1995 | 4.22 | 0.46 | 0.011 | 4.70 | 0.23 | 4.93 |
| 2000 | 4.07 | 0.88 | 0.008 | 4.95 | 1.20 | 6.15 |
| 2001 | 4.32 | 0.95 | 0.009 | 5.28 | 1.25 | 6.53 |
| 2002 | 4.42 | 0.98 | 0.009 | 5.41 | 1.40 | 6.81 |
| 2003 | 4.55 | 0.98 | 0.011 | 5.54 | 1.43 | 6.97 |
| 2004 | 4.46 | 1.00 | 0.011 | 5.46 | 1.49 | 6.95 |

Source: **INEE**. La Calidad de la Educación Básica en México, 2004. D.F., México

**TABLE 9: EXPENDITURE PER STUDENT AS A %
OF GNP PER CAPITA (1995 – 2004).**

| Year | Expenditure per Student | | | | | | Public Ex- penditure per stu- dent | Total Ex- penditure per stu- dent |
|------|-------------------------|------------|-----------------|-----------|------------------|---------------------|---|--|
| | Pres- school | Elementary | Lower Middle | Technical | Higher Middle | Higher Education | | |
| 1990 | 6.93 | 5.78 | 11.55 | 19.64 | 25.42 | 53.15 | 13.87 | 13.87 |
| 1995 | 11.21 | 11.72 | 17.83 | 22.42 | 33.63 | 79.49 | 17.83 | 17.32 |
| 2000 | 13.92 | 12.64 | 19.41 | 19.60 | 28.02 | 62.46 | 18.68 | 20.33 |
| 2001 | 14.72 | 13.49 | 20.50 | 20.68 | 29.61 | 66.06 | 20.43 | 22.08 |
| 2002 | 14.66 | 13.34 | 20.42 | 20.75 | 29.65 | 66.37 | 20.42 | 22.07 |
| 2003 | 14.49 | 13.18 | 20.18 | 20.28 | 28.96 | 64.85 | 20.18 | 21.75 |
| 2004 | 14.48 | 13.18 | 20.17 | 20.03 | 28.62 | 64.07 | 20.17 | 21.80 |

Source: **INEE**. La Calidad de la Educación Básica en México, 2004. D.F., México

TABLE 10: MAIN ELEMENTARY STUDENTS ASSESSMENTS

| | National Tests EXCALE (Previously National Standards) | IDANIS | Carrera Magisterial |
|--|---|--|--|
| Purpose | Education system general assessment | Secondary entry General diagnosis | Distribution of Pay Scales and Money Incentives |
| Impact | Low on individuals and schools | High on individuals | High on Teachers and Schools |
| Evaluated levels and grades | 6th grade of elementary school and 3rd grade of secondary school | Students finishing 6th grade of elementary | Elementary: 3 rd & 6 th / Secondary: 1 st , 2 nd & 3 rd |
| Subjects | Mathematics and Spanish Grammar (Compulsory) | Verbal and mathematical abilities and abstract reasoning | Multiple subjects (compulsory) |
| Supervised organizations | Up to 2002, DGEP Currently, INEE | DGEP | DGEP and state offices |
| Scope of assessment | National National and states representation all types of services within elementary and secondary | Most of states in Mexico (20 in the year 2004) | National (no representation since it is voluntary) Does not include indigenous education or community courses or Secondary at distance (<i>Telesecundarias</i>) |
| Occasional or institutional assessment | Institutional | Institutional | Institutional |
| Optional or compulsory | Compulsory | Optional | Voluntary |
| Frequency and regularity of measurements | Annual, since 1998 | Annual, since 1986 | Annual, since 1993 |
| Size of samples | Approximately 50,000 students for each Level | 940.000 tests in 2004 Census type (states where applicable) | Between 4.500.000 & 5.300.000 students |
| Technical and Qualitative Characteristics of Instruments | Points based on TRI No previous accomplishment is considered Contextual Questionnaires for Students Questionnaires for Principals and Teachers | Points based on TRI No previous accomplishment is considered No Contextual Questionnaires Apply Nationwide | Points not based on TRI No previous accomplishment is considered No Contextual Questionnaires Apply |
| Type of Developed Analyses | Annual Comparative Reports by INEE Multiple and more Complex Reports on Associated Learning Factors | | No Analyses, Descriptive Reports: Comparison of average results among different groups |

TABLE 11: MAIN MIDDLE SCHOOL STUDENTS ASSESSMENTS

| | Exani-I | Exani-II |
|---|---|---|
| Purpose | New coming students selection Gives out information on students' capacity and level of studies | |
| Impact | High on individuals | |
| Evaluated levels and grades | Third grade of secondary | third grade of secondary and all three levels of high school |
| Subjects | Verbal and mathematical abilities Disciplined knowledge ((8) subjects) | |
| Supervised organizations | CENEVAL | CENEVAL |
| Scope of assessment | Nationwide | Nationwide |
| Occasional or institutional assessment | Institutional | Institutional |
| Optional or compulsory | Optional | Optional |
| Frequency and regularity of measurements | Annual, since 1994 | Annual, since 1994 |
| Size of samples | Approximately 600,000 students | Approximately 250,000 students |
| Technical and qualitative characteristics of instruments | Questionnaire with contextualized results of socio-cultural data is included | Standards of assessment have been defined by national universities participants |
| Type of developed analyses | No analyses are developed Comparative and descriptive report are applicable | No analyses are developed Comparative and descriptive report are applicable |

TABLE 12: INTERNATIONAL ASSESSMENTS IN MEXICO

| | PISA | TIMSS | LLECE |
|--|---|---|---|
| Levels and grades evaluated | Fifteen year-old students | Nine year-old students (3 rd & 4 th elementary school) Students of thirteen years of age (1 & 2 secondary) | 3 rd & 4 th elementary school students |
| Subjects | Mathematics, Spanish, and Sciences Reasoning, interpreting, and Solving problems abilities | Mathematics and Sciences, curricular contents | Mathematics and Spanish, curricular contents |
| Regulations & legislation | | | |
| Supervising organizations | Program for International Student Assessment (PISA-OECD) Subsecretaría de Planeación y Coordinación – Secretaría de Educación Pública (SEP - Mexico) Instituto Nacional de Evaluación Educativa (INEE – Mexico) | Asociación internacional para la Evaluación del logro Educativo (IEA – USA) Dirección General de Evaluación y Planeación (DGEP-SEP – Mexico) | Regional Education Office of the UNESCO, Latin America and the Caribbean (OREALC) Dirección General de Evaluación (DGE-SEP – Mexico) |
| Scope of the assessment | 2000: National 2003: National with State Representation | National | National example of public and private schools |
| | | | Example of public schools in thirteen states |
| Occasional or institutional assessment | Institutional | Occasional | Occasional |
| Optional or compulsory | Optional | Optional | Optional |
| Frequency & regularity of measurements | First stage, in 2000 Second Stage, in 2003 Expected stage, in 2006 | First stage, in 1995 Second stage, in 2000 Expected stage, in 2007 | First and only stage in 1997 |
| Size of samples | The year 2000 5,276 Students & 183 Schools | 1995 Nine year-old children: 10.316 students Thirteen year-old children: 24.652 students | National samples: 4913 students, 130 schools (LEN) 4932 students, 131 schools (MAT) |
| | In 2003 29.983 students, 1.124 schools | In 2000 Nine year-old children: 9.676 students Thirteen year-old children: 10.384 students | States samples: 16207 students, 456 schools LEN/MAT |
| Technical and qualitative characteristics of instruments | Item Response Theory Questionnaires are applicable to students and principals | Item Response Theory Questionnaires are applicable to students, teachers, and principals | Questionnaires were applied to students, parents, teachers, and principals |
| Type of analyses developed in Mexico | DESCRIPTIVE Results comparison between years 2000 & 2003 Comparison with International results Comparisons among states, public & private entities | PREDOMINANTLY DESCRIPTIVE Comparison of results 1995-2005 Comparison between results in Mexico & international ones Association of results & variables (state level) | DESCRIPTIVE & ASSOCIATIVE Average comparisons Identification of variables Analysis of hierarchical regression: Identification of individual, compositional, educational, & state in connection with achievement differences (Cervini 2003) |

TABLE 13: ASSESSMENT PROGRAM, INEE: GRADES & AREAS ASSESSED IN EACH SCHOOL YEAR

| Grades | School year | | | | | | | | | | | |
|-------------------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| 3 rd Preschool | | | E, M | | | | E, M | | | | E, M | |
| 3 rd elementary | | E, M, N, S | | | | E, M, N, S | | | | E, M, N, S | | |
| 6 th elementary | E, M | | E, M, N, S | | E, M, N, S | | E, M, N, S | | E, M, N, S | | | |
| 3 rd lower middle | E, M | | | E, M, N, S | | E, M, N, S | | E, M, N, S | | | | E, M, N, S |
| 3 rd higher middle | | | | E, M | | | E, M, N, S | | | | E, M, N, S | |

Note: E =Spanish Exam; M =Mathematics Exam; N =Natural Science Exam; S = Social Science Exam.
Source: INEE (2005).

TABLE 14: EXCALE CURRICULA CONTENTS

| Preschool | 3° | Numerical and Verbal Reasoning |
|--------------|---------|---|
| Elementary | 3° y 6° | Mathematics Spanish Natural Sciences Social Sciences |
| Secundaria | 3° | Mathematics Spanish Natural Sciences Social Sciences |
| Bachillerato | 3° | Mathematics Spanish Sciences Humanities |

Source: INEE. (2005).

TABLE III.4: SCHOOL RESOURCES INCLUDED AS INDICATORS BY THE INEE

| Material Resources | Human Resources |
|---|---|
| Percentage of multi- level elementary schools ⁵⁷ | Percentage of teachers that meet education standards |
| Percentage of fixed classrooms ⁵⁸ | Percentage of teachers who have accomplished extra curricular courses |
| Percentage of schools with less than one fixed classroom | Percentage of teachers registered in the Teaching career program |
| Number of students per computer | Percentage of teachers with more than one position |
| Percentage of schools with Internet access | Percentage of administrators who also teach |
| Percentage of schools in good conditions | Years of experience, average of all Teachers |
| Basic Infrastructure Index | Average teachers' age |
| Didactic material Index | Average principal schooling |
| Curricula Material Index | Percentage of teachers with another paid job |
| | Percentage of teachers trained for the school year |

⁵⁷ A multi- level school is one where only one individual who in one single classroom is simultaneously different grades students' teacher.

⁵⁸ A fixed classroom is a space not originally designed to be used for educational purposes, in spite of being adapted to serve such ends.

Annex II. Documents

Fragmento 1: Acuerdo para la Modernización de la Educación Básica

Sobre la Federalización de la Educación Básica y Normal

A fin de corregir el centralismo y burocratismo del sistema educativo, con fundamento en lo dispuesto por la Constitución General de la República y por la Ley Federal de Educación, el Gobierno Federal y los gobiernos de las entidades federativas de la República celebran en esta misma fecha convenios para concretar sus respectivas responsabilidades en la conducción y operación del sistema de educación básica y de educación normal. De conformidad con dichos convenios y a partir de ahora, corresponderá a los gobiernos estatales encargarse de la dirección de los establecimientos educativos con los que la Secretaría de Educación Pública ha venido prestando, en cada estado y bajo todas sus modalidades y tipos, los servicios de educación preescolar, primaria, secundaria y para la formación de maestros, incluyendo la educación normal, la educación indígena y los de educación especial.

En consecuencia, el Ejecutivo Federal traspasa y el respectivo gobierno estatal recibe, los establecimientos escolares con todos los elementos de carácter técnico y administrativo, derechos y obligaciones, bienes muebles e inmuebles, con los que la Secretaría de Educación Pública venía prestando, en el estado respectivo, hasta esta fecha, los servicios educativos mencionados, así como los recursos financieros utilizados en su operación. La transferencia referida no implica de modo alguno la desatención de la educación pública por parte del Gobierno Federal. El Ejecutivo Federal vigilará en toda la República el cumplimiento del Artículo Tercero Constitucional, así como de la Ley Federal de Educación y sus disposiciones reglamentarias; asegurará el carácter nacional de la educación y, en general, ejercerá las demás atribuciones que le confieren los ordenamientos aplicables. Es importante destacar que el carácter nacional de la educación se asegura principalmente a través de una normatividad que sea observada y aplicada de manera efectiva en todo el territorio del país.

En tal virtud, el Ejecutivo Federal promoverá y programará la extensión y las modalidades del sistema educativo nacional, formulará para toda la República los planes y programas para la educación preescolar, primaria, secundaria y normal, autorizará el uso de material educativo para los niveles de educación citados, mantendrá actualizados y elaborará los libros de texto gratuitos para la educación primaria, propiciará el desarrollo educativo armónico entre las entidades federativas, concertará con éstas las acciones necesarias para reducir y superar disparidades y dará atención prioritaria a aquellas regiones con importantes rezagos educativos, establecerá procedimientos de evaluación del Sistema Educativo Nacional, promoverá los servi-

cios educativos que faciliten a los educadores su formación y constante perfeccionamiento, y fomentará permanentemente la investigación que permita la innovación educativa.

La autoridad educativa nacional se fortalecerá ejerciendo la función compensatoria entre estados y regiones que nuestros ordenamientos y tradiciones asignan al Gobierno Federal. Así, dicha autoridad velará porque se destinen recursos relativamente mayores a aquellas entidades con limitaciones y carencias más acusadas. De igual modo, la autoridad nacional seguirá diseñando y ejecutando programas especiales que permitan elevar los niveles educativos en las zonas desfavorecidas o en aquellas cuya situación educativa es crítica. Se hará un esfuerzo significativo en programas que mejoren la eficiencia terminal de la educación primaria y reduzcan el analfabetismo en las zonas y entre los grupos de mayor atraso educativo. A fin de ejercer mejor su función compensatoria, el Gobierno Federal conservará la dirección y operación de los programas más estrechamente vinculados a ella.

El Ejecutivo Federal se compromete a transferir recursos suficientes para que cada gobierno estatal se encuentre en condiciones de elevar la calidad y cobertura del servicio de educación a su cargo, de hacerse cargo de la dirección de los planteles que recibe, de fortalecer el sistema educativo de la entidad federativa, y cumplir con los compromisos que adquiere en este Acuerdo Nacional. Asimismo, convendrá con aquellos gobiernos estatales que hasta ahora han aportado recursos modestos a la educación, en que incrementen su gasto educativo a fin de que guarden una situación más equitativa respecto a los estados que, teniendo un nivel similar de desarrollo, ya dedican una proporción más significativa de sus presupuestos a la educación.

Fuente: **SEP** Acuerdo Nacional para la Modernización de la Educación Básica. Diario Oficial de la Federación. 19 de mayo de 1992. México, D. F.

Fragmento 2: Ley General de Educación

Sobre las atribuciones de las diversas autoridades educativas

ARTÍCULO 12.- Corresponden de manera exclusiva a la autoridad educativa federal las atribuciones siguientes:

- I.- Determinar para toda la República los planes y programas de estudio para la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica, a cuyo efecto se considerará la opinión de las autoridades educativas locales y de los diversos sectores sociales involucrados en la educación, en los términos del artículo 48;
- II.- Establecer el calendario escolar aplicable en toda la República para cada ciclo lectivo de la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica;
- III.- Elaborar y mantener actualizados los libros de texto gratuitos, mediante procedimientos que permitan la participación de los diversos sectores sociales involucrados en la educación;

- IV.- Autorizar el uso de libros de texto para la educación primaria y la secundaria;
- V.- Fijar lineamientos generales para el uso de material educativo para la educación primaria y la secundaria;
- VI.- Regular un sistema nacional de formación, actualización, capacitación y superación profesional para maestros de educación básica;
- VII.- Fijar los requisitos pedagógicos de los planes y programas de educación inicial y preescolar que, en su caso, formulen los particulares;
- VIII.- Regular un sistema nacional de créditos, de revalidación y de equivalencias, que faciliten el tránsito de educandos de un tipo o modalidad educativo a otro;
- IX.- Llevar un registro nacional de instituciones pertenecientes al sistema educativo nacional;
- X.- Fijar los lineamientos generales de carácter nacional a los que deban ajustarse la constitución y el funcionamiento de los consejos de participación social a que se refiere el capítulo VII de esta Ley;
- XI.- Realizar la planeación y la programación globales del sistema educativo nacional, evaluar a éste y fijar los lineamientos generales de la evaluación que las autoridades educativas locales deban realizar;
- XII.- Fomentar, en coordinación con las demás autoridades competentes del Ejecutivo Federal, las relaciones de orden cultural con otros países, e intervenir en la formulación de programas de cooperación internacional en materia educativa, científica, tecnológica, artística, cultural, de educación física y deporte, y
- XIII.- Las necesarias para garantizar el carácter nacional de la educación básica, la normal y demás para la formación de maestros de educación básica, así como las demás que con tal carácter establezcan esta Ley y otras disposiciones aplicables.

ARTÍCULO 13.- Corresponden de manera exclusiva a las autoridades educativas locales, en sus respectivas competencias, las atribuciones siguientes:

- I.- Prestar los servicios de educación inicial, básica -incluyendo la indígena-, especial, así como la normal y demás para la formación de maestros;
- II.- Proponer a la Secretaría los contenidos regionales que hayan de incluirse en los planes y programas de estudio para la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica;
- III.- Ajustar, en su caso, el calendario escolar para cada ciclo lectivo de la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica, con respecto al calendario fijado por la Secretaría;
- IV.- Prestar los servicios de formación, actualización, capacitación y superación profesional para los maestros de educación básica, de conformidad con las disposiciones generales que la Secretaría determine;
- V.- Revalidar y otorgar equivalencias de estudios de la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica, de acuerdo con los lineamientos generales que la Secretaría expida;
- VI.- Otorgar, negar y revocar autorización a los particulares para impartir la educación primaria, la secundaria, la normal y demás para la formación de maestros de educación básica, y

VII.- Las demás que con tal carácter establezcan esta Ley y otras disposiciones aplicables.

ARTÍCULO 14.- Adicionalmente a las atribuciones exclusivas a que se refieren los artículos 12 y 13, corresponden a las autoridades educativas federal y locales, de manera concurrente, las atribuciones siguientes:

- I.- Promover y prestar servicios educativos, distintos de los previstos en las fracciones I y IV del artículo 13, de acuerdo con las necesidades nacionales, regionales y estatales;
- II.- Determinar y formular planes y programas de estudio, distintos de los previstos en la fracción I del artículo 12;
- III.- Revalidar y otorgar equivalencias de estudios, distintos de los mencionados en la fracción V del artículo 13, de acuerdo con los lineamientos generales que la Secretaría expida;
- IV.- Otorgar, negar y retirar el reconocimiento de validez oficial a estudios distintos de los de primaria, secundaria, normal y demás para la formación de maestros de educación básica que impartan los particulares;
- V.- Editar libros y producir otros materiales didácticos, distintos de los señalados en la fracción III del artículo 12;
- VI.- Prestar servicios bibliotecarios a través de bibliotecas públicas, a fin de apoyar al sistema educativo nacional, a la innovación educativa y a la investigación científica, tecnológica y humanística;
- VII.- Promover permanentemente la investigación que sirva como base a la innovación educativa;
- VIII.- Impulsar el desarrollo de la enseñanza tecnológica y de la investigación científica y tecnológica;
- IX.- Fomentar y difundir las actividades artísticas, culturales y físico-deportivas, en todas sus manifestaciones;
- X.- Vigilar el cumplimiento de esta Ley, de sus disposiciones reglamentarias, y
- XI.- Las demás que con tal carácter establezcan esta Ley y otras disposiciones aplicables.

El Ejecutivo Federal y el gobierno de cada entidad federativa podrán celebrar convenios para coordinar o unificar las actividades educativas a que se refiere esta Ley, con excepción de aquéllas que, con carácter exclusivo, les confieren los artículos 12 y 13.

ARTÍCULO 15.- El ayuntamiento de cada municipio podrá, sin perjuicio de la concurrencia de las autoridades educativas federal y locales, promover y prestar servicios educativos de cualquier tipo o modalidad. También podrá realizar actividades de las enumeradas en las fracciones V a VIII del artículo 14.

El gobierno de cada entidad federativa promoverá la participación directa del ayuntamiento para dar mantenimiento y proveer de equipo básico a las escuelas públicas estatales y municipales.

El gobierno de cada entidad federativa y los ayuntamientos podrán celebrar convenios para coordinar o unificar sus actividades educativas y cumplir de mejor manera las responsabilidades a su cargo.

Fuente: Ley General de Educación. Decretada por el Congreso de los Estados Unidos Mexicanos el 13 de Julio de 1993.

Fragmento 3: Artículo Tercero de la Constitución de los Estados Unidos Mexicanos

Todo individuo tiene derecho a recibir educación. El Estado -federación, estados, Distrito Federal y municipios-, impartirá educación preescolar, primaria y secundaria. La educación preescolar, primaria y la secundaria conforman la educación básica obligatoria.

La educación que imparta el Estado tenderá a desarrollar armónicamente todas las facultades del ser humano y fomentará en él, a la vez, el amor a la Patria y la conciencia de la solidaridad internacional, en la independencia y en la justicia.

- I. Garantizada por el artículo 24 la libertad de creencias, dicha educación será laica y, por tanto, se mantendrá por completo ajena a cualquier doctrina religiosa;
- II. El criterio que orientará a esa educación se basará en los resultados del progreso científico, luchará contra la ignorancia y sus efectos, las servidumbres, los fanatismos y los prejuicios.
Además:
 - a) Será democrático, considerando a la democracia no solamente como una estructura jurídica y un régimen político, sino como un sistema de vida fundado en el constante mejoramiento económico, social y cultural del pueblo;
 - b) Será nacional, en cuanto -sin hostilidades ni exclusivismos- atenderá a la comprensión de nuestros problemas, al aprovechamiento de nuestros recursos, a la defensa de nuestra independencia política, al aseguramiento de nuestra independencia económica y a la continuidad y acrecentamiento de nuestra cultura, y
 - c) Contribuirá a la mejor convivencia humana, tanto por los elementos que aporte a fin de robustecer en el educando, junto con el aprecio para la dignidad de la persona y la integridad de la familia, la convicción del interés general de la sociedad, cuanto por el cuidado que ponga en sustentar los ideales de fraternidad e igualdad de derechos de todos los hombres, evitando los privilegios de razas, de religión, de grupos, de sexos o de individuos;
- III. Para dar pleno cumplimiento a lo dispuesto en el segundo párrafo y en la fracción II, el Ejecutivo Federal determinará los planes y programas de estudio de la educación preescolar, primaria, secundaria y normal para toda la República. Para tales efectos, el Ejecutivo Federal considerará la opinión de los gobiernos de las entidades federativas y del Distrito Federal, así como de

- los diversos sectores sociales involucrados en la educación, en los términos que la ley señale.
- IV. Toda la educación que el Estado imparta será gratuita;
 - V. Además de impartir la educación preescolar, primaria y secundaria señaladas en el primer párrafo, el Estado promoverá y atenderá todos los tipos y modalidades educativos -incluyendo la educación inicial y a la educación superior- necesarios para el desarrollo de la nación, apoyará la investigación científica y tecnológica, y alentará el fortalecimiento y difusión de nuestra cultura;
 - VI. Los particulares podrán impartir educación en todos sus tipos y modalidades. En los términos que establezca la ley, el Estado otorgará y retirará el reconocimiento de validez oficial a los estudios que se realicen en planteles particulares. En el caso de la educación preescolar, primaria, secundaria y normal, los particulares deberán:
 - a) Impartir la educación con apego a los mismos fines y criterios que establecen el segundo párrafo y la fracción II, así como cumplir los planes y programas a que se refiere la fracción III, y
 - b) Obtener previamente, en cada caso, la autorización expresa del poder público, en los términos que establezca la ley;
 - VII. Las universidades y las demás instituciones de educación superior a las que la ley otorgue autonomía, tendrán la facultad y la responsabilidad de gobernarse a sí mismas; realizarán sus fines de educar, investigar y difundir la cultura de acuerdo con los principios de este artículo, respetando la libertad de cátedra e investigación y de libre examen y discusión de las ideas; determinarán sus planes y programas; fijarán los términos de ingreso, promoción y permanencia de su personal académico; y administrarán su patrimonio. (...)
 - VIII. El Congreso de la Unión, con el fin de unificar y coordinar la educación en toda la República, expedirá las leyes necesarias, destinadas a distribuir la función social educativa entre la Federación, los Estados y los Municipios, a fijar las aportaciones económicas correspondientes a ese servicio público y a señalar las sanciones aplicables a los funcionarios que no cumplan o no hagan cumplir las disposiciones relativas, lo mismo que a todos aquellos que las infrinjan.

Fuente: Constitución Política de los Estados Unidos Mexicanos. Publicada en el Diario Oficial de la Federación el 05 de Febrero de 1917. Última Reforma Publicada en el Diario Oficial de la Federación el 12 de Noviembre de 2002. México, D. F.

Fragmento 4: Artículos 7 y 8 de la Ley General de Educación

Artículo 7°

La educación que impartan el Estado, sus organismos descentralizados y los particulares con autorización o con reconocimiento de validez oficial de estudios tendrá, además de los fines establecidos en el segundo párrafo del artículo 3o. de la Constitución Política de los Estados Unidos Mexicanos, los siguientes:

- I.- Contribuir al desarrollo integral del individuo, para que ejerza plenamente sus capacidades humanas;
- II.- Favorecer el desarrollo de facultades para adquirir conocimientos, así como la capacidad de observación, análisis y reflexión críticos;
- III.- Fortalecer la conciencia de la nacionalidad y de la soberanía, el aprecio por la historia, los símbolos patrios y las instituciones nacionales, así como la valoración de las tradiciones y particularidades culturales de las diversas regiones del país;
- IV.- Promover mediante la enseñanza el conocimiento de la pluralidad lingüística de la Nación y el respeto a los derechos lingüísticos de los pueblos indígenas.
Los hablantes de lenguas indígenas, tendrán acceso a la educación obligatoria en su propia lengua y español.
- V.- Infundir el conocimiento y la práctica de la democracia como la forma de gobierno y convivencia que permite a todos participar en la toma de decisiones al mejoramiento de la sociedad;
- VI.- Promover el valor de la justicia, de la observancia de la Ley y de la igualdad de los individuos ante ésta, así como propiciar el conocimiento de los Derechos Humanos y el respeto a los mismos;
- VII.- Fomentar actitudes que estimulen la investigación y la innovación científicas y tecnológicas;
- VIII.- Impulsar la creación artística y propiciar la adquisición, el enriquecimiento y la difusión de los bienes y valores de la cultura universal, en especial de aquellos que constituyen el patrimonio cultural de la Nación;
- IX.- Estimular la educación física y la práctica del deporte;
- X.- Desarrollar actitudes solidarias en los individuos, para crear conciencia sobre la preservación de la salud, la planeación familiar y la paternidad responsable, sin menoscabo de la libertad y del respeto absoluto a la dignidad humana, así como propiciar el rechazo a los vicios;
- XI.- Inculcar los conceptos y principios fundamentales de la ciencia ambiental, el desarrollo sustentable así como de la valoración de la protección y conservación del medio ambiente como elementos esenciales para el desenvolvimiento armónico e integral del individuo y la sociedad.
- XII.- Fomentar actitudes solidarias y positivas hacia el trabajo, el ahorro y el bienestar general.

Artículo 8°

El criterio que orientará a la educación que el Estado y sus organismos descentralizados impartan -así como toda la educación preescolar, la primaria, la secundaria, la normal y demás para la formación de maestros de educación básica que los particulares impartan- se basará en los resultados del progreso científico; luchará contra la ignorancia y sus causas y efectos; las servidumbres, los fanatismos, los prejuicios, la formación de estereotipos y la discriminación, especialmente la ejercida en contra de las mujeres. Además,

I.- Será democrático, considerando a la democracia no solamente como una estructura jurídica y un régimen político, sino como un sistema de vida fundado en el constante mejoramiento económico, social y cultural del pueblo;

II.- Será nacional, en cuanto -sin hostilidades ni exclusivismos- atenderá a la comprensión de nuestros problemas, al aprovechamiento de nuestros recursos, a la defensa de nuestra independencia política, al aseguramiento de nuestra independencia económica y a la continuidad y acrecentamiento de nuestra cultura, y

III.- Contribuirá a la mejor convivencia humana, tanto por los elementos que aporte a fin de robustecer en el educando, junto con el aprecio para la dignidad de la persona y la integridad de la familia, la convicción del interés general de la sociedad, cuanto por el cuidado que ponga en sustentar los ideales de fraternidad e igualdad de derechos de todos los hombres, evitando los privilegios de razas, de religión, de grupos, de sexos o de individuos.

Fuente: Ley General de Educación. Publicada en el Diario Oficial de la Federación el 13 de julio de 1993. Última Reforma Publicada en el Diario Oficial de la Federación, el 04 de enero de 2005. México, D. F.

Fragmento 5: Programa Nacional de Educación 2001 – 2006

La calidad como dimensión de la equidad

Tener acceso a escuelas de calidad desigual no es equitativo. La equidad implica necesariamente la calidad y exige mejorar los resultados, con atención especial a los grupos en situación de pobreza. El derecho a la educación no significa sólo asistir a la escuela, sino aprender realmente. Mientras el sistema no ofrezca a los pobres el acceso a una educación de buena calidad, actuará como mecanismo de marginación. Debe superarse el elitismo, que por una parte implica dar ventajas en el acceso a las mejores oportunidades educativas a quienes disponen de más recursos, y por otra fomenta la exclusión de quienes, contando con capacidad, carecen de medios económicos para acudir a ellas. La solución de los rezagos, a través de la apertura de oportunidades de acceso a una educación de buena calidad para todos, es imperativo moral, condición de desarrollo y factor determinante de la estabilidad social.

La necesidad de atención preferencial a los grupos sociales más vulnerables se pone de relieve por el hecho de que los datos existentes muestran que, en proporción a sus respectivos niveles de ingreso, los grupos más pobres de la población gastan más del doble en educación que los que se ubican en los niveles más altos de

ingreso y que, aún en términos absolutos, la contribución al sostenimiento de la escuela que hacen las comunidades más pobres –frecuentemente en trabajo y en especie– es superior a la que hacen los grupos más favorecidos en el medio urbano. Los recursos públicos por alumno, en cambio, suelen ser menores en los lugares más necesitados, con los cual reproducen la desigualdad en vez de compensarla.

Por todo ello, el principio de la equidad hace imprescindible adoptar y reforzar medidas destinadas al mejoramiento de la calidad de las instituciones educativas, brindando una atención preferencial a las que se ubican en zonas rurales y urbano-marginales. Esto sólo podrá lograrse si los recursos destinados a las instituciones que sirven a los sectores más pobres de la población no sólo son equivalentes, sino superiores, en volumen y calidad, a los que se otorgan a las del medio urbano, en tipos, niveles y modalidades equiparables. Los alumnos de menores recursos requerirán también de apoyos complementarios tales como becas u otros estímulos, para ayudar a cubrir los costos indirectos de la educación y para compensar el costo de oportunidad que supone la prolongación de los estudios.

Fuente: Programa Nacional de Educación 2001 - 2006. Secretaría de Educación Pública, 2001. México, D. F., p. 42.

Fragmento 6: Decreto de Creación del Instituto Nacional para la Evaluación de la Educación (INEE)

ARTÍCULO 1o.- Se crea el Instituto Nacional para la Evaluación de la Educación como un organismo público descentralizado, de carácter técnico, con personalidad jurídica y patrimonio propio, con domicilio en la ciudad de México, que podrá establecer oficinas en cualquier lugar de la República.

ARTÍCULO 2o.- El Instituto tendrá por objeto ofrecer a las autoridades educativas de naturaleza federal y locales así como al sector privado, las herramientas idóneas para hacer la evaluación de los diferentes elementos que integran sus correspondientes sistemas educativos. Será objeto de los programas, servicios y acciones del Instituto la educación de tipo básico, en sus niveles de preescolar, primaria y secundaria y la de tipo medio superior de bachillerato o profesional, tanto en modalidad escolar, en escuelas públicas y privadas, urbanas y rurales, como en las modalidades no escolarizada y mixta, incluyendo la educación para adultos, la educación especial, la indígena y la comunitaria. La educación superior no será objeto de la actividad del Instituto.

ARTÍCULO 3o.- Para el cumplimiento de sus objetivos, el Instituto colaborará con la Secretaría de Educación Pública en las evaluaciones que ésta deba realizar respecto del sistema educativo nacional, así como para la fijación de los lineamientos generales conforme a los cuales, las autoridades educativas locales deban evaluar sus respectivos sistemas educativos. Corresponderá al Instituto:

- I.- Desarrollar y mantener en operación un sistema de indicadores que permita valorar en forma objetiva la calidad del sistema educativo nacional, en los niveles que le corresponden;

- II.- Apoyar la realización de evaluaciones nacionales de los aprendizajes alcanzados por los alumnos, cubriendo por muestreo o en forma censal y en ciclos anuales o multianuales, todos los grados, ciclos y áreas curriculares de los tipos, niveles y modalidades educativos correspondientes;
- III.- Desarrollar modelos para la evaluación de las escuelas de los tipos, niveles y modalidades educativos de su competencia, y apoyar su utilización en el sistema educativo nacional;
- IV.- Apoyar, a solicitud de las autoridades estatales correspondientes, la extensión de la evaluación educativa a que se refieren las tres fracciones anteriores en las entidades de la República;
- V.- Apoyar, a solicitud de las autoridades educativas federales o estatales, la evaluación de programas y proyectos prioritarios;
- VI.- Diseñar instrumentos y sistemas de evaluación educativa adecuados a los diferentes tipos, niveles, grados y áreas de los currículos; apoyar en su aplicación o, en su caso, supervisar la aplicación así como coadyuvar en el análisis e interpretación de la información que arrojen, actuando siempre con respeto al principio de equidad;
- VII.- Impulsar y fortalecer la cultura de la evaluación en todos los medios relacionados con la educación, difundir los resultados de los análisis y desarrollar actividades de capacitación en materia de evaluación educativa, y
- VIII.- Realizar estudios e investigaciones en la materia, representar a México ante los organismos internacionales de evaluación educativa y coordinar la participación del país en los proyectos internacionales al respecto, con la participación que conforme a las disposiciones legales corresponda a la Secretaría de Relaciones Exteriores.

ARTÍCULO 4o.- En el desarrollo de sus funciones, el Instituto buscará contribuir al mejoramiento de la educación, en el marco de los principios que establecen la Constitución Política de los Estados Unidos Mexicanos y la Ley General de Educación. En particular, se regirá por las siguientes orientaciones generales:

- I.- Buscará alcanzar la mayor calidad en el desarrollo de modelos e instrumentos de evaluación, atendiendo la confiabilidad y validez, en todas sus dimensiones;
- II.- Señalará con claridad los usos aceptables y deseados de cada evaluación;
- III.- Devolverá la información procesada, a quienes contribuyeron a su generación;
- IV.- Reconocerá la importancia de la función de evaluación de centros escolares, zonas de supervisión y autoridades educativas locales, orientando su trabajo a complementar, apoyar y alimentar la realización de esta función;
- V.- Cuidará que los resultados de las evaluaciones que se realicen no sean utilizados por sí solos para tomar decisiones sobre individuos, y menos de carácter punitivo, entendiendo que su propósito es el de retroalimentar al sistema educativo nacional y a los subsistemas estatales en cuanto tales, para que mejoren su operación y resultados, como elemento de estímulo y apoyo;
- VI.- Tendrá en cuenta las diferentes circunstancias que puedan afectar a personas, escuelas o subsistemas y evitará comparaciones que no consideren tales posi-

bles diferencias teniendo siempre presente el principio de búsqueda de la equidad en el análisis de resultados de la evaluación;

- VII.- Procurará que en todas sus líneas de actividad exista un componente de innovación que genere nuevos instrumentos y nuevas formas de enfrentar la evaluación, en función de las necesidades del sistema educativo;
- VIII.- Tratará siempre de realizar sus funciones con la mayor eficiencia posible, evitando el desperdicio de tiempo y recursos;
- IX.- Procurará que los resultados de las evaluaciones permitan comparar en el tiempo, y
- X.- Se esforzará por participar en todos los eventos pertinentes de evaluación internacional.

ARTÍCULO 5o.- Para el cumplimiento de sus propósitos el Instituto tendrá las siguientes atribuciones:

- I.- Definir e instrumentar, de manera conjunta con la Secretaría de Educación Pública, una política nacional de evaluación, que contribuya a la elevación de la calidad de la educación. La política nacional de evaluación educativa deberá precisar:
 - a) Los puntos de referencia con los que se deberán comparar los resultados obtenidos para llegar a juicios de valor sobre la calidad educativa, tanto en una perspectiva transversal como en una longitudinal;
 - b) Las consecuencias de la evaluación, en términos de apoyos compensatorios, estímulos, medidas preventivas o correctivas y financiamiento;
 - c) Lo relativo a la difusión pública de los resultados de la evaluación, cuidando tanto el justo derecho de las personas a la privacidad, como el de la sociedad a que se le rindan cuentas sobre el uso de los recursos públicos y el funcionamiento de servicios de interés general, y
 - d) La distinción entre la evaluación de personas, la de instituciones y subsistemas, y la del Sistema Educativo Nacional en su conjunto;
- II.- Asesorar al Ejecutivo Federal en la planeación de políticas y acciones relacionadas con la calidad educativa, de acuerdo al Plan Nacional de Desarrollo;
- III.- Actuar como órgano de consulta y asesoría de las dependencias y entidades de la Administración Pública Federal, así como de las autoridades estatales, municipales, y de los sectores social y privado cuando así lo requieran;
- IV.- Promover, coordinadamente con la Secretaría de Educación Pública y otras entidades de la Administración Pública Federal, así como con entidades privadas, en el ámbito de sus respectivas competencias, acciones destinadas a mejorar la calidad educativa;
- V.- Concertar acuerdos y convenios con la autoridad educativa de estados y municipios y, en su caso, con entidades privadas, para promover políticas y programas tendientes a la elevación de la calidad educativa, y
- VI.- Las demás que le otorgan este Decreto y otros ordenamientos legales y reglamentarios.

Fuente: Decreto por el que se crea el Instituto Nacional para la Evaluación de la Educación. Secretaría de Educación Pública. Diario Oficial, 8 de agosto de 2002.

