## Universal evaluation: An invitation to the creation of innovative models for teacher training

Rosa Isela Gluyas Fitch Tecnológico de Monterrey

Ziranda González Pineda Tecnológico de Monterrey

#### **ABSTRACT**

In 2007, Mexico's Federal Government, through the Public Education Secretariat, started a project with the participation of the states' education authorities in order to optimize teaching and the management of the quality of schools. This project was carried out as a mean to solve the decades of falling behind that the quality of education in Mexico has endured in terms of school performance and teacher training and evaluation. In 2011, the SEP and the National Union of Education Workers (SNTE), signed the National Agreement for the Universal Evaluation of Teachers and Principals of Basic Education, with the purpose of generating assessments and focus continuous education on developing teaching competences and the improvement of the quality of education. In the final year of President Felipe Calderon Hinojosa's presidential term (2012), the Program of Universal Evaluation of Teachers and Principals of Basic Education was launched. Its the objective was of assessing the teachers' performance, in order to shape the decision making in the construction of innovative programs for the selection, preparation, development, evaluation and recognition of teachers of elementary schools. Within this program it was possible to conduct, for the first time in Mexico's history, the Universal Evaluation for Teachers to 52% of the elementary schools' teachers. The results of the first phase of the Universal Evaluation laid out, among many other challenges, the creation of innovative models of education for teachers that could allow the construction of training and formative projects which could, in turn, encourage voluntary participation from a higher number of teachers in order to ensure the continuity and implementation of this initiative in its subsequent phases.

Keywords: Teacher training, Teacher evaluation, Basic education Teachers

Copyright statement: Authors retain the copyright to the manuscripts published in AABRI journals. Please see the AABRI Copyright Policy at <a href="http://www.aabri.com/copyright.html">http://www.aabri.com/copyright.html</a>.

#### INTRODUCTION

The visions of national and international organizations, as well as the recommendations they have issued regarding the measures Mexico must undertake to attain quality education to benefit and develop a better society in all its contexts, have set the pace for the implementation of strategies aimed at the improvement of the quality of education. Next, we present some of the most relevant indicators, issued by OCDE, PISA and ENLACE, from which Mexico has acted in response to the challenges in the issues of quality and equity that the Education System faces.

#### **Indicators from the Organization for Economic Co-operation and Development (OCDE)**

In 2009, OCDE revealed that despite the fact that funds devoted to education in the elementary and secondary levels from 1995 to 2005 placed Mexico in the seventh position over all of OCDE's member countries, in the category of expenses per student it placed last, considering that, in average the member countries invested 7,527 USD (Table 1). This situation revealed that "if Mexico doesn't have a clear vision of where does it want to be in the field of education by 2025, then it hardly has any idea of the quantity of resources it needs to invest and which key aspects of educational improvement to invest in" (Zorrilla, 2011).

Among other categories, Mexico kept one of the highest deficits between the expenses per elementary student and the university level, as the latter amounted triple to the investment devoted to the students of elementary education.

Likewise, education coverage, inscription rates and graduation percentages only stressed how behind Mexico was in education, as it placed among the second to last and last position of all the member countries in regards to these indicators (Table 2).

OCDE issued a series of recommendations in the document Mexico-OCDE Cooperation Agreement to improve the quality of education of Mexican schools (Mexico-OCDE, 2010-2011). This recommendation prompted actions, and their results were included in the Education Overview study (Córdova, 2012). Although the data presented in this latest report correspond to the academic year 2009-2010, it shows some of the strides that mark the direction Mexico's education system is taking towards an improvement in education coverage and quality.

The results of this study indicated higher enrolment rates for children of 4 years of age among OCDE's countries, starting from 2009, when preschool education was made mandatory, going from the 21st position (of 30) in 2005, to the 4th position (of 37) in 2010. Nearly 100% of all children and youths between the ages of 5 and 14 received an education. The graduation rate of higher middle education increased 14 percentage points between the years 2000 and 2010, in contrast with the average increase of 8 percentage points of the rest of the member countries, just to mention some of the results of the study. However, the expectations for the percentage of graduation of secondary level is of 45%, while the expectations for graduation percentages for higher middle level is of less than 25%, which still keeps Mexico between the second to last and last position (OECD, 2012).

In the document Perspectives OCDE: Mexico Reforms for Change (México-OCDE, 2012), OCDE issued recommendations once again, which served to define strategies and take steps for the improvement of Mexicans' education, in addition to a review of the management of education system and other national and international indicators, among which the ones from PISA and ENLACE stand out, shown below to further illustrate Mexico's education challenge.

Other indicators: Programme for International Student Assessment (PISA)

The PISA project grades the comprehension level of the knowledge acquired during elementary and secondary school to 15 year olds, applied to a real context. It allows the identification of weaknesses and strengths of the national education systems, and it also detects the factors associated with educational success: "PISA defines competence as *literacy*, that is, the ability to extrapolate what has been learned throughout life and its application in real life situations, as well as the ability to analyze, reason and communicate with efficacy when posing, interpreting and solving problems in a wide variety of situations" (PISA, 2009a).

In Mexico, the National Institute for Education Evaluation (Instituto Nacional para la Evaluación de la Educación, INEE), is the institution in charge of the coordination of the application of the test. In the year 2006 the test was taken by 37,706 students from private and public schools, regardless of their academic level, 77.8% had a high school degree (Table 3).

In 2009, 38,250 students from 1,535 schools participated in the test, the highest level of participation since 2000, when PISA held its first evaluation. According to the results of this period, Mexico was OCDE's country with the highest percentage of students with the lowest literacy level, 40.1% (in contrast with OCDE's average of 18.8%). It is the country with the lowest percentage of students reaching higher levels; in mathematics, only 0.7% reached those levels; and only 0.2% achieved those levels in sciences, just to mention a few examples. However, Mexico was the country showing the strongest progress between 2003 and 2009, with an increase of 33 points compared with the progress of other member countries (PISA, 2009b).

The results of the students' performance levels in PISA 2009 (table 4), show the great difference between the achievements of Shanghai-China (the country with the best results), where only 5% of its students are in the lower levels, and the levels by Kyrgyzstan (the country with the lowest performance levels), where 80% of students are found in these levels. Mexico has between 40% and 50% of its students in the lower levels and ranks below Chile, but fares better than Brazil, Argentina, and the rest of Latin America on average. However, "PISA evaluations only include 15 year old students coursing secondary school or Higher Middle School at that age, which for Mexico accounts for 66.2% of the whole population in that age range. If it also included youths outside of the school system or coursing primary school, the percentage found in the lower levels would probably be higher" (PISA, 2009c).

#### **National Evaluation of Academic Achievement in Schools (ENLACE)**

Ana María Aceves Estrada, National Director of the Secretariat of Public Education Evaluation, stated during president Felipe Calderon Hinojosa's term that "it is important to complement OCDE and PISA's results with national indicators contextualized within the country's reality, like the National Evaluation of Academic Achievement in Schools (ENLACE), which is an evaluation exercise that considers the results and recommendations issued by international organizations, by conducting standardized and objective tests that evaluate the academic achievement level of students. The analysis of these tests has contributed to the decision making for the betterment of the National Education System, through the implementation of public policies that look to bring quality of education and learning considering all the actors and variables at play in Mexico's educational context".

The ENLACE evaluation offers a diagnosis of students on an individual level and evaluates school performance in Spanish, Mathematics, and a third subject which changes every

year (in 2012, it was Sciences). In 2012, 13,507,167 students from 116,251 schools were evaluated. It is important to highlight that the grades evaluated in elementary education were from 3rd to 6th grade of elementary school and from 1st to 3rd grade of secondary school. In higher education schools, the ENLACE test was taken by 965,144 students coursing the last year of high school from 13,189 public, private and incorporated schools.

Based on the results of ENLACE test and on the evaluations presented by OCDE and PISA, Mexico continues to face important challenges that have boosted the correlation of key factors of Mexico's Education System, among which stand out the SEP and the SNTE, which have established alliances in order to promote the improvement of the training programs for teachers, as well as the improvement of allocation of teachers in schools, together with an evaluation system properly conceived and of strict application, just as OCDE recommends (SEP, 2012a).

The result of these quality indicators belong only to the students and doesn't take into account teachers' performance; however, it has been useful to steer strategic decisions onto educational issues, aiding in the planning and design of public policies on both public and private levels for the betterment of Mexicans' education.

#### PRINCIPAL ACTORS FOR MANAGEMENT OF EDUCATION QUALITY IN MEXICO

In this context, and in order to address what the indicators recognized as opportunities of improvement on the subject of Mexico's education, during the term of President Felipe Calderon Hinojosa, the objectives, strategies and national priorities of the National Development Plan were established, with the year 2030 in perspective (SEP, 2007).

The document served as the basis for the design of the Sectorial Education Program (2007-2012) (PSE) during this same period. The guidelines determined by the government to elevate the quality of education in the country are outlined in this document (SEP, 2007).

The actions taken were done through interdisciplinary work, negotiations and the consensus among the different key actors, among which stand out: the Secretariat of Public Education, whose main purpose has been to create the conditions that ensure access for all Mexicans to an educational quality, on the level and form they require and on the place they need it (SEP, 2012e); the state's education authorities, who, in the federalism's framework, have the power to influence programs that aid in the improvement of the quality of education; finally, the National Union of Education Workers, which, according to the 1st article of their statute, has been considered as a national group of education workers for the study, defense and improvement of their common interests, with their motto: "For education in service of the people" (SNTE, 2012).

Both the SEP and the SNTE have promoted and managed actions to address the degree in which the education in Mexico has fallen behind, and one of the aspects in which both coincide is the need to professionalize the educational practice as a key strategy to boost the quality of education. In this sense, the SEP and the SNTE created two programs: *Teaching Career* and the *Universal Evaluation of Teachers and Principals of Basic Education Program* (SEP-SNTE 2011b), aiming to "recognize the teaching practice as a labor that requires specialized training, permanent updating and professional autonomy with a responsibility towards society" (Ortiz, 2003).

#### PROGRAMS DESIGNED TO ELEVATE EDUCATIONAL QUALITY

#### **National Teacher Training System**

Having a National Teacher Training System that fosters the personal and professional development of the teachers of Mexico has required the participation of the federal government, the states' government, public and private universities, and the union representatives of the education workers, among other key factors and institutions that have contributed to the initialization and implementation of the initiatives for the professionalization of teachers' performance on the different levels and configurations of elementary education.

Teacher training started with the creation of the Rural Normal Schools (Escuelas Normales Rurales, ENR), in the Normal Teaching Regional Centers (Centros Regionales de Enseñanza Normal, CREN), in the normal schools for Primary School Teachers' Training (ENM); normal schools to train female teachers, secondary school teachers, physical education teachers and, recently, technological education, telesecondary school, artistic and indigenous school teachers. More recently, there are now degrees offered by the National Pedagogic University (Universidad Pedagógica Nacional - UPN). There are other institutions that have supported the national subsystem of basic education, particularly primary education, in which most of the teachers trained by the National Teacher Training System have performed (Arnaut, 2004).

After the Curriculum Reform, the 90's saw the creation of national and state programs for the updating of teachers on duty, who themselves pushed for the creation and implementation, on a federal level, of the National Permanent Updating Program (PRONAP), state updating programs and the Teaching Career Program. Among the programs for the updating and professionalization of teachers and educational administrators stand out: the Compensatory Education Programs, the Transformation of School Management Program, the Quality Schools Program, the Program for the Creation and Strengthening of the State Evaluation Areas, the Program for Permanent Training of teachers of Basic Education in service, to name a few.

In this situation, the result of the creation of several teacher updating programs has made clear the need to ensure their quality and appropriateness, in order to address the challenges regarding educational quality and not just from a perspective revolving around improvements to the working and wage conditions of teachers. "The professional development of teachers of Mexico in its current context still has unaddressed challenges (...) their initial training and professional self-improvement; their updating and training, as well as their professional career, understood as a life project, that starts with the personal decision of studying to become a teacher". (Ortiz, 2003).

The early training required by the teachers, prior to their work in front of a classroom, affords them the basic competences and knowledge needed to start their educational work. This training, according to the SNTE, demands continuity through permanent learning in their personal and professional environments in order to attain quality education. The development of programs of professionalization of teachers, according to the SEP and the SNTE, has required the consideration and acknowledgment of the teacher's work as a profession more than a simple technical and instrumental occupation. The National Teachers System faces great challenges as it intends to address the educational needs of the country, and the programs designed for this purpose in the future must consider fostering the self-management of the teacher in the process of self-evaluation and self-training to improve their performance and the education of their

students, as well as their participation in learning communities for the construction and transference of knowledge (Aceves, 2012).

#### **Teaching Career for the professional development of teachers**

The Teaching Career, designed by the SEP and the SNTE has among its precedents the Vertical Hierarchy, the Basic Education Scheme and the Career Professional Service, and it appears as an alternative to boost the teachers' professional development through economic stimuli oriented towards evaluation, training and updating, with the purpose of elevating and improving the quality of education. (Ortiz, 2003).

On May 19, 1992, the SEP and governments of federal entities signed the National Agreement for the Modernization of Basic Education (ANMEB). The document promotes three main fronts for the reform of the three Basic Education levels, the educational decentralization and the social revaluation of the teacher. For this third front, the Teaching Career and the Program for Permanent Training of teachers of Basic Education on duty were created (Vázquez, 2012).

The Teaching Career is composed by a system of horizontal promotion stimulus in which teachers participate voluntarily, and that is composed of five levels: A, B, C, D and E, to which the teacher can have access through an evaluation system that also translates into an increase in their salary. The Teaching Career encourages the participation of teachers in a training program, so they can reinforce their teaching skills, without relying on a personal diagnosis of the required competences to improve teachers' performance. However, there are no known evaluations confirming the effect of the implementation of this program in terms of educational quality, and it hasn't addressed the following issues posed by the SEP as precedents to create the National Agreement for Universal Evaluation of Teachers and Principals of Basic Education:

- 396,000 teachers are not part of Teaching Career.
- In Teaching Career, the teacher is evaluated only to be accredited and promoted, not to maintain their stimulus level.
- The knowledge evaluations of the teachers are performed using tests with the same grade of difficulty for their acceptance or for promotion purposes.
- Many of the teachers accredited with Teaching Career have stopped being evaluated, so it can't be considered as part of the programs of continuous training, since they do not train nor update their skills.
- The program offers significant stimulus yet has minimal demands.
- Many teachers have not been subjected to evaluation once they join the Teaching Career, or are only evaluated once after joining the Program.

Since there is a lack of an evaluation program for the on duty teachers, a great number of them never are subjected to an evaluation; there is a need for assessment of performance in order to promote training actions, and updating on the required areas. The effect of teacher performance on the students' learning has weakened, and no information has been gathered to verify the quality of teachers graduating from normal schools, as well as from formative and updating programs.

From the perspective of Ana María Aceves Estrada: "as long as there aren't systematic processes of follow-up and evaluation of its implementation that could allow a public valuation of the results, it remains a pending issue that must be addressed to achieve a Teaching Career Program which encourages the permanent learning of teachers so it can have an impact on the

quality of education". Aceves stressed that: "this need has brought about the design of other programs to take concrete measures regarding teacher instruction focusing on educational quality, like the Universal Evaluation Program" (Aceves 2012), of which the results in its first phase of implementation bring up the need to create innovative models of education for teachers, together with a system of evaluation of the teachers' performance properly conceived and of strict application, just as OCDE recommends (Mexico-OCDE, 2012).

## UNIVERSAL EVALUATION OF TEACHERS AND PRINCIPALS OF BASIC EDUCATION PROGRAM}

#### Precedents to the Universal Evaluation: SEP-SNTE shared responsibility

There is a legal basis, in accordance to articles 10, 29, 30, and 31 of the General Education Law, regarding the conduction of diagnostic evaluations with the purpose of strengthening the educational system, among which the following stand out: the SEP and the local educational authorities have the authority to evaluate the educational system, which includes teachers and students; evaluation must be systematic and permanent; it must be performed so authorities can implement appropriate actions; evaluation must be carried out with the support of all institutions of basic education; it can also be conducted with statistical and diagnostics purposes; lastly, the results of this evaluation must be disclosed.

In view of the challenges in the matter of educational quality, and with the legal support mentioned earlier, both the SEP and the SNTE established an Alliance for the quality of education "with the purpose of encouraging a transformation in search of educational quality, favoring and encouraging a vast mobilization around education, in order for society to be aware of the commitments required of the deep transformation of the national education system and make them their own" (SEP, 2012a).

It is in this context that the Federal Government, represented by the SEP, and Mexico's teachers, represented by the SNTE, signed on May 15, 2008 the document Alliance for the Quality of Education, which "seeks a transformation of education based on the definition of clear, explicit and precise commitments by the actors of the Mexican Education System, to address the needs and demands of each school" (SEP, 2012a). The Alliance defined five core concepts and ten processes, of which process 10 of the fifth core concept refers specifically to Universal Evaluation:

• Core Concept 5. Evaluate to improve: Evaluation must serve as incentive to elevate educational quality, and to favor transparency and accountability, and to serve as a basis for the appropriate design of educational policies.

Process 10. Evaluation

The alliance was conceived as a public strategy, with concrete actions to be carried out via "the formalization of the corresponding legal instruments, in accordance to the area of competence, functions and availability of the parts that subscribe to it." It established as a requirement the coordination and agreement of the states' governments and the social sectors involved for the realization of the proposed actions, as well as for the recurring review of the progress in the commitments for their implementation. (SEP, 2012a).

#### **Deployment of the Universal Evaluation**

The Secretariat of Public Education and the National Union of Education Workers signed on March 1, 2012, the General Guidelines that regulated the implementation of the Universal Evaluation, with the objective of bringing diagnostics information to guide teachers' formative paths and to improve their performance so as to have an impact on the school performance of basic education students (figure 1).

The general guidelines set the foundations to deploy the first phase of the Universal Evaluation, which presented the following benefits for teachers (SEP, 2012c):

- Having diagnosis-formative information of their strengths and opportunities of improvement, with the option of formative paths that are free, appropriate and within their reach.
- The results will be considered to recognize the corresponding factors of the National Teaching Career Program, as well as the Stimulus for Teaching Quality Program, according to the guidelines of each program.
- It will improve the work of the teachers with the biggest impact on the betterment of school achievement of the students of the National Basic Education System.

## Deployment of the First Phase (2012). Primary Education, Indigenous Education, Boarding Schools

The first phase of the application of the Universal Evaluation, carried out from June to September of 2012, had the objective of "gaining an assessment of the performance of the students and of the professional competences of the teachers, with strictly educational goals, to generate the appropriate and opportune strategies to improve the educational achievement of the students and the professional performance of the teachers" (Vázquez, 2012).

Various specialists and academics of evaluation and educational offices made up from the National Institute of Education Evaluation (INEE), and the National Center of Evaluation for Higher Education (CENEVAL), worked jointly with collegiate bodies from the SEP and the SNTE on the design of the Universal Evaluation instrument, which consisted of 100 items divided in four diagnostic units (DU):

- 1) Language and communication.
- 2) Mathematical thinking.
- 3) Exploration and comprehension of the natural and social world.
- 4) Personal and coexistence development.

During the first phase, the test was taken by teachers and principals of general primary level schools, indigenous primary schools and boarding schools (figure 2).

The Universal Evaluation Directive Committee established, as a criterion to define the threshold for each diagnosis unit in each type of test, to consider the results and budget of continuous training for the following two Priority levels:

Priority I: formative option diagnosed to be taken in the 2012-2013 school cycle.

Priority II: formative option diagnosed to be taken in the 2012-2015 period.

#### Results of the 1st phase of Universal Evaluation 2012

To meet the formative purpose of the diagnostic, the results were processed for each of the Diagnosis Units, DU (Language and Communication; Mathematical Thinking; Exploration and Comprehension of the Natural and Social World, and Personal and Coexistence development).

According to this model, the results for teachers in front of classrooms and those with techno-pedagogical functions were each presented in four independent scales, and the ones for principals were presented in four different scales.<sup>1</sup>

The results of the first diagnostic phase for the Universal Evaluation 2011-2012, obtained the total participation of 264,379 teachers (52% of all teachers) from all the elementary schools of the country, of which 74% are part of Teaching Career, while 26% aren't (including private and indigenous schools). (SEP, 2012g)

The participation of more than a half of the teachers of basic education in the test was considered a remarkable achievement. Ana María Aceves Estrada, General Director of Evaluation of the Secretariat of Education Policies commented: "for the first time in the history of our country we are able to diagnose teaching efficiency in relation to competences. The information derived from these tests, opens up enormous possibilities to plan formative projects appropriate with the results obtained in such evaluation, which could serve as the basis for the design and application of the State Training Catalogs". (Aceves, 2012)

Ana María Aceves recognized that: "it represents a significant progress, yet it's just a start if the next phases aren't able to come together to provide follow-up to the diagnosis data resulting from the Universal Evaluation. The challenge remains in ensuring continuity for the project, creating a teacher training model with the participation of all the involved parties and for each federal entity, to guarantee voluntary and massive participation of the teachers." (Aceves, 2012)

With the indicators revealed by this diagnostic, a strategy was created to provide focus to continuous training for Elementary Education, which consists of:

- a) The Grading Committee agreed on a ruling associated to the DU in most necessity of attention, deciding on its Priority Level in the following manner:
  - a.1. Establishing a threshold in the 20% of the corresponding score, for each Diagnosis Unit UD, considering a population dimension that the State's Education Authorities and the Federal Administration of Educational Services would be able to tend to it as soon as possible.
  - a.2. The teachers with score lower than this threshold in any DU were classified as Priority I, that is, requiring immediate attention. 98,856 participants were classified as a part of this level, corresponding to 37.4% of all the participants. They will have to take, in the school cycle 2012-2013, the formative paths derived from this test.
  - a.3. The teachers with a score above the threshold in the four DU were classified as Priority II, which means in need of short term attention. 62.6% of the participants, that is, 165,526 teachers, are part of this level and they must take their own formative path

<sup>&</sup>lt;sup>1</sup> Check the tables in the Publication of Diagnosis and Formative Paths Universal Evaluation of Teachers and Principals 2011-2012 in Education and the website <a href="http://basica.sep.gob.mx/seb2010/start.php">http://basica.sep.gob.mx/seb2010/start.php</a>).

starting from the current school cycle and until 2015.

- a.4 In case that any participant scores are lower than the threshold in 2 or more DU, the Committee has decided that their priority level will be decided by the order in which the 4 DU were chosen to appear: DU1 Language and Communication, DU2 Mathematics, DU3 Exploration and Comprehension of the World and DU4 Personal and Coexistence Development.
- b) To reinforce the remaining DU, the participants were informed about the order in which they must take the formative paths suggested in their diagnosis or its equivalent in the Continuous Training Catalog of the corresponding school cycle, so they can plan their own continuous training and professionalization for the period 2012-2015.

Since this is a process of voluntary participation, both the SEP and the SNTE invited the parties responsible for Continuous Training and to the participants of the Universal Evaluation to consult the results, so they could have better tools to select and plan their own continuous training with the appropriate paths within their reach, which would help them to reinforce the DU topics that represent their biggest opportunities for improvement.

For this purpose, the SEP, based on the results of the first phase of the Universal Evaluation, made available to teachers the document *Formative Paths for Elementary Education 2012-2013*, defined as the plan or proposal drafted by teacher collectives to tend to their formative needs during a school cycle (SEP, 2012i). These formative paths are made up of appropriate contents readily available, on the topics of: language and communication, mathematical thinking, exploration and comprehension of the natural and social world, personal and coexistence development, and conditions of the teaching practice, offered via online, blended, and face-to-face modes.

The SEP has made a commitment to transfer 180 million MXP into 32 federal entities to support the Formative Paths, an allocation that considers:

- 1. The effort of the federal entity, weighing the total participation of the Program's teachers, as well as the participation of teachers that are not part of Teacher Career (private and indigenous schools).
- 2. Takes into consideration the *teachers of each federal entity diagnosed as Priority I*. The State's Institution for Continuous Training will be responsible for:
- Select the formative paths to be offered in the federal entity.
- Inform and orient interested parties regarding the options and conditions of the educational offer
- Inform and capture into the Information and Record of Training Actions System managed by the General Direction of Continuous Training for Teachers on Duty (DGFCMS), the formative path selected by the participant, as well as his or her registration to it and the modules taken (SEP, 2012i).

#### **Educational Impact of the Universal Evaluation**

The application and results of the first phase of the Universal Evaluation were a boost to evaluation culture as a basis to increase and strengthen Mexico's quality of education (Córdova, 2012):

• For the first time in the history, a systematic evaluation to Mexico's education system was performed, establishing the Universal Evaluation for teachers and principals of

- public and private basic education, of which its first phase was carried out on June 24 and July 6 of 2012.
- Thanks to the results of the first phase, education authorities have information to orient updating, training and professional development actions for teachers and principals on duty.
- The offer of Continuous training is strengthened through face-to-face and blended courses and workshops, online and remote tutoring with several didactic tools, under the responsibility of federal and state authorities in the training projects and activities.
- The institutions of teaching education (normal schools) nowadays have important data to evaluate the profile of their graduates, as well as for the review and updating of their study plans and programs.
- There is a reference for the design and implementation of educational policies.
- A Continuous Training Catalog in line with training and updating needs is offered, which includes courses, certification programs, specialization, masters and doctorates, offered by institutions of higher education.
- The program of stimulus to teaching quality is reinforced for the best teachers, principals and techno-pedagogic support of the basic level.
- In Teaching Career, the students' performance has more weight on the evaluation, as 50% of it is determined by the school achievement of the students.

Cordova mentioned: "we have boosted the transformation of our education system, building, together with the state's education authorities, teachers and society, the solid foundation for a better Mexico" (Córdova, 2012).

#### **Challenges of the Universal Evaluation Program**

According to the results of the first phase from the Universal Evaluation, we expect its analysis brings the creation of an innovative model of teacher training that takes into account the formative priorities established by the Directive Committee of Universal Evaluation as a criterion to define the threshold for each diagnosis unit and for each test type. This involves developing:

- 1) An efficient national training program that provides support to the position openings and hierarchy aligned to The Teaching Career.
- 2) That promotes and establishes the design of competence standards for the certification of teaching competences.
- 3) That provides continuity to the initial proposal in the next phases during the established period.
- 4) That takes into account different training courses taught with quality, as an answer to the needs revealed by the results of the diagnosis performed since the implementation of the first phase of the Universal Evaluation in 2012.
- 5) That motivates and engages teachers to train themselves as part of the self-management of their development in a permanent learning context.
- 6) That grants teachers freedom of choice in terms of the courses they wish to take, based on the opportunities for improvement identified during phase 1.

- 7) That makes teachers feel the importance of evaluation to elevate their quality as teachers, and so they can feel that this program represents an opportunity for professional growth.
- 8) That guarantees the acquisition of new teaching-learning competences established in basic education plans and programs.
- 9) That evaluates the impact of teachers' training in the quality of students' learning.
- 10) That grants the foundations for the design of an instrument to assess teacher performance and its impact on students' learning.
- 11) That the states make sure their training centers meet the required coverage and quality conditions, to guarantee the possibility of massive participation.
- 12) That offers multiple modes of course delivery in alliance with education institutions.
- 13) That grants transparency in the resources' allocation for the institutions and achieves greater consistency with the global higher education strategy.
- 14) That includes actions so it can be considered a SEP priority program for the country, in order to make it a matter of national interest and its development wouldn't be hindered by states that wouldn't allow evaluation.
- 15) That includes interdisciplinary groups of technical specialists in educations issues for the design, follow-up and evaluation of the program.

That is why it is necessary to foster an intrinsic motivation for teachers so that, voluntarily and as a commitment to their vocation, they recognize that their work is not limited to teaching and evaluating their students; they also need to take responsibility for the professionalization of their functions, through self-examination and valuation of the results from the diagnosis of the Universal Evaluation, so they can see updating and training like the necessary and enriching strategies for their personal and work development.

#### REFERENCES

- Aceves, A. (2012) An Interview with Ana María Aceves Estrada, General Director of Evaluation of the Secretariat of Education Policies. Interviewer: Gluyas Fitch, Rosa Isela. México: SEP.
- Arnaut, A. (2004). El Sistema de formación de maestros en México. Continuidad, reforma y cambio [The system of teachers training in Mexico. Continuity, Reform and Change]. *Cuadernos de discusión 17*. México: SEP.
- Córdova, J. (2012). Panorama de la educación en México. Comparecencia ante la H. Cámara de Senadores [Panorama of education in Mexico. Summons with the Honourable Senators]. México: SEP.
- México-OCDE (2010). Acuerdo de cooperación México-OCDE para mejorar la calidad de la educación de las escuelas mexicanas [Cooperation agreement Mexico-OCDE to improve the quality of education in mexican schools]. Retrieved from: <a href="http://www.oecd.org/edu/school/46216786.pdf">http://www.oecd.org/edu/school/46216786.pdf</a>
- México-OCDE (2012). Perspectivas OCDE: México. Reformas para el Cambio [OCDE Perspectives. Reforms to Change]. Retrieved from <a href="http://www.oecd.org/centrodemexico">http://www.oecd.org/centrodemexico</a> OECD (2012). Education at the Glance 2012. Retrieved from: <a href="http://www.oecd-">http://www.oecd-</a>
  - ilibrary.org/education/education-at-a-glance-2012\_eag-2012-en

- OECD (2011). Education at a Glance 2011. OECD indicators. Chapter C. *Access to Education, participation and progression*. P. 291. Retrieved from: <a href="http://www.oecd.org/edu/highereducationandadultlearning/48631582.pdf">http://www.oecd.org/edu/highereducationandadultlearning/48631582.pdf</a>
- Ortiz, M. (2003). Carrera Magisterial un proyecto de desarrollo profesional. Cuadernos de discusión [Teaching Career a project to professional development. Discuss notebooks]. México: SEP.
- PISA (2009a). *Descripción general de PISA[General description of PISA]*. Retrieved from: <a href="http://www.inee.edu.mx/images/stories/Publicaciones/Estudios\_internacionales/PISA\_2009/Partes/pisa2009-6b.pdf">http://www.inee.edu.mx/images/stories/Publicaciones/Estudios\_internacionales/PISA\_2009/Partes/pisa2009-6b.pdf</a>
- PISA (2009b). *Descripción general de PISA [General description of PISA]*. Retrieved from: <a href="http://www.inee.edu.mx/images/stories/Publicaciones/informacion\_pisa2009.pdf">http://www.inee.edu.mx/images/stories/Publicaciones/informacion\_pisa2009.pdf</a>
- PISA (2009c). *Descripción General de PISA[General description of PISA]*. Retrieved from: <a href="http://www.inee.edu.mx/images/stories/Publicaciones/informacion\_pisa2009.pdf">http://www.inee.edu.mx/images/stories/Publicaciones/informacion\_pisa2009.pdf</a>
- SEP (2007). Plan sectorial de Educación (2007-2012). [Sectorial educational plan] México: SEP
- SEP (2012a). *Alianza para la calidad de la educación [Alliance for the quality of education]*. Retrieved from: <a href="http://alianza.sep.gob.mx/i2.html">http://alianza.sep.gob.mx/i2.html</a>
- SEP (2012b). Presentación de resultados de ENLACE 2012 [ENLACE 2012 results presentation]. Retrieved from: <a href="http://www.sep.gob.mx/es/sep1/C1130812">http://www.sep.gob.mx/es/sep1/C1130812</a>
- SEP (2012c) Evaluación Nacional del Logro. ENLACE 2012. Retrieved from SEP.gob: <a href="http://www.enlace.sep.gob.mx/resultados\_historicos\_por\_entidad\_federativa/">http://www.enlace.sep.gob.mx/resultados\_historicos\_por\_entidad\_federativa/</a>
- SEP (2012d) Logros en educación. El secretario de educación pública, Doctor José Ángel Córdova Villalobos, ofreció un mensaje sobre los "logros en educación del gobierno del presidente Felipe Calderón" Retrieved from SEP.gob:

  <a href="http://www.sep.gob.mx/es/sep1/pie\_nota">http://www.sep.gob.mx/es/sep1/pie\_nota</a> 040912#.ufnh\_hg7rsm</a>
- SEP (2012e) *Misión y Visión de la SEP*. Retrieved from SEP.gob: http://www.sep.gob.mx/es/sep1\_Vision\_de\_la\_SEP#.UFngxRg7RsM
- SEP (2012f) Curso básico de formación continua para maestros en servicio 2012. Transformación de la práctica docente. México: SEP.
- SEP (2012g) Evaluación Universal de Docentes y Directivos en Servicio de Educación Básica, Información participantes primera fase 2012. México: SEP-SNTE.
- SEP (2012h) Publicación de diagnósticos y Trayectos Formativos, Evaluación Universal de Docentes y Directivos en Servicio 2011-2012, Educación Primaria. México: SEP
- SEP (2012i) Trayectos Formativos 2012-2013 primaria. México: SEP.
- SEP-SNTE (2011a) Lineamientos generales que regulan la Evaluación Universal de Docentes y Directivos en servicio de Educación Básica. México: SEP-SNTE.
- SEP-SNTE (2011b) Acuerdo para la Evaluación Universal de Docentes y Directivos en Servicio de Educación Básica. México: SEP-SNTE.
- SEP-SNTE. (2012) Evaluación Universal de Docentes y Directivos en Servicio de Educación Básica, Información general. México: SEP-SNTE.
- SNTE (2012). ¿Quiénes somos? [Who are we?] Retrieved from: http://www.snte.org.mx/?P=snte\_quienes\_somos&opt=quien
- Vázquez, T. Curso Básico de Formación Continua para Maestros en Servicio 2012 [Continuous Training Basic Course to teacher in duty 2012]. México: SEP

Zorrilla, M. (2011). Presentación de Panorama de la educación 2011: Indicadores del Sistema Educativo Nacional[Presentation of Panorama of education 2011. Educative National System Indicators]. México: INEE. Retrieved from:

www.inee.edu.mx/images/panorama2011/version13092012.pdf

#### **APPENDIX**

Table 1. Expenses devoted to the educational sector. Source: Education Overview 2008 (OCDE, 2009).

Listing	Average Investment / percentages	Mean of the organization's members	Position among the organization's member countries
Expenses devoted to the education sector from 1995 to 2005 for primary and secondary school	13.9% to 17%	One of the highest after Canada, Czech Republic, Italia, Korea, Slovakia and United Kingdom	7th position
Expenses per student	2,405 dollars per year	7,527 dollars	
Expenses per primary student	1,913 dollars per year	6,252 dollars	Last position
Expenses per secondary student	1,838 dollars per student	7,437 dollars	
Expenses per high school student	2,853 dollars	8,366 dolars	
Expenses per university student	6,402 dollars	11,512 dollars	

According to the OCDE report, Mexico keeps one of the largest deficits between expenses for primary students and those for university level, as the latter amounted to triple the investment devoted to the students of elementary education, something completely out of balance.

Table 2. Education coverage and graduation percentages 2008. Source: Education Overview 2008 (OCDE, 2009).

Listing	Indicator	
Education Coverage among youths aged 15 to 19	45% does not go to school. Of these:  • 62% are employed  • 38% are not studying or working	
Inscription rates among youths aged 15 to 19	48.8%	Second to last position
Graduation from secondary	41% complete their studies	Last position
Graduation from High School	39% complete High School (between the ages of 25 and 34)	Second to last position
Graduation from Higher Level	61% complete their studies	

Table 3. Mexico's results in the PISA 2006 Report. Source: PISA 2006 Report. Scientific competences for tomorrow's world.

Performance Criteria	Results
Problem Solving	One of every two students is capable
	of solving basic problems.
Scientific, mathematic and literacy skills	50 % of the youths aged 15, placed between
	levels zero and one, the lowest
	of school achievement for these skills.
Literacy	Dropped 12 points compared to the year 2000
Sciences	Dropped 12 points compared to the year 2000
Mathematics	Up 19 points compared to the year 2000.
Highest level of evaluated competences	Not even 1% managed to place in the highest
	level of the three competences evaluated by
	PISA.
Last position of OCDE's 30 nations	

Table 4. Percentage of students by performance levels, PISA 2009. Source: México in PISA 2009. National Institute for Education Evaluation

Country	Lower Levels <=1			Intermediate Levels 2-3			Higher Levels >=4		
Country	Literacy	Sciences	Math	Literacy	Sciences	Math	Literacy	Sciences	Math
Shanghai- China	4.1	3.2	4.9	41.8	36.5	23.9	54.2	60.3	71.2
OCDE	18.8	18.0	22.0	52.9	53.0	46.4	28.3	29.1	31.6
Spain	19.6	18.2	23.7	59.4	60.3	50.6	21.0	21.5	25.7
Chile	30.6	32.3	51.0	58.8	58.8	42.0	10.6	8.9	6.9
México	40.1	47.4	50.8	54.2	49.4	43.8	5.7	3.3	5.4
Average LA	48.9	52.0	63.1	44.6	43.2	32.2	6.6	4.7	4.7
Kyrgyzstan	83.2	82.0	86.6	15.7	17.3	12.6	1.1	0.8	0.7

Table 5. Mexico's results of the ENLACE test. Source: Results Presentation (SEP-ENLACE 2012).

School performance in primary school	2006 (level good or excellent)	2012 (level good or excellent)				
Mathematics	17.6%	44.3% 3.6 million of students reached this level				
Spanish	21.3%	41.8%				
School performance in secondary school	Between 2006 and 2012, the proportion of students that reached level Good or Excellent in Mathematics increased by 16.1 percentage points.					
	Between 2006 and 2012, the proportion of students that reached the level Good or Excellent in Spanish increased by 6 percentage points.					
School performance in	The proportion of students that reached level <i>Good</i> or <i>Excellent</i> in					
middle higher school	Mathematics increased by 15.2 percentage points, from 15.6% to 30.8%. In literacy, 51.35 % of the students reached this level.					

Figure 1. Universal Evaluation, Participants' information, first phase 2012. Source: (SEP, 2012g)

#### Universal Evaluation: Professional Preparation Application

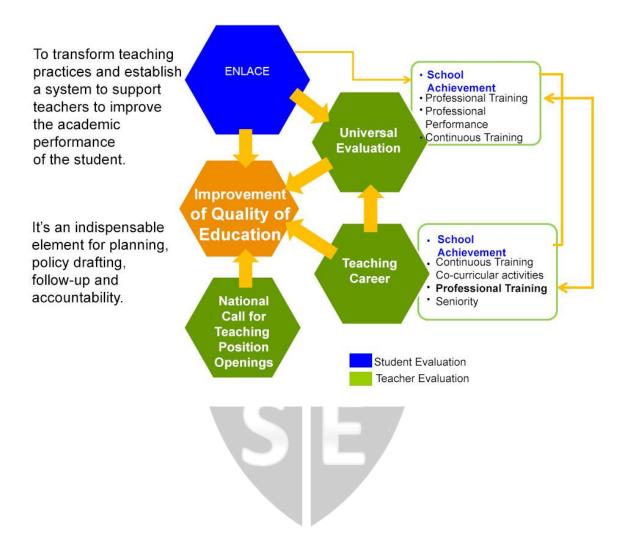
SI	JMMAR'	Y APPLIC	ATION 20	12 P	RIMARY	CHOOL	S	
Application Date	Venue	Expected	Attendance	%	External Social Observers	Coordina- tors	Testers	Technical Observers
1st stage June 24	674	255,793	193,342	76%	667	1,348	14,616	30
2nd stage July 6	743	234,803	68,896	30%	909	1,486	14,900	30
Universal Evaluation	1,417	490,596	262,238	54%	1,576	2,834	29,516	60

#### Application August 18 and 19, September 2

	Venues	Expected	Attendance		
Oaxaca	1	196	113	58	
Michoacán	15	5,508	2028	37	
Oaxaca y Michoacán	19	9,117	2,066	23	
Accumulated	1,436	496,300	264,379	53	

Figure 2. Universal Evaluation, Participants' Information first phase 2012. Source: (SEP, 2012g).

#### **Educational Evaluation**



*Figure 3.* Publication of Diagnosis and Training Paths. Universal Evaluation of Teachers and Principals. 2011---2012. Primary Education. Source: (SEP, 2012h).

#### Diagnosis Units, Priority and Test Type



#### Diagnosis Units

- 1. Communication and Language
- 2. Mathematical Thinking
- 3. Exploration and Comprehension of the Natural and Social World
- 4. Personal and Coexistence Development
- 1. Organizational
- 2. Administrative and Social Participation
- 3. Didactic Strategies and Evaluation
- 4. Approach and Programs

#### **Test Type/Function Evaluated**

0004: Teacher in front of a 2nd period class (Grade 1 through 3). General Primary

0006: Teacher in front of a 3rd period class (Grade 4 through 6). General Primary

6804: Teachers with techno-pedagogical tutoring Functions. General Primary

004l: Teacher in front of a 2nd period class (Grade 1 through 3). Indigenous Primary

0061: Teacher in front of a 3rd period class (Grade 4 through 6). Indigenous Primary

6805: Teachers with techno-pedagogical tutoring Functions. Indigenous Primary

0035: General Primary Principals

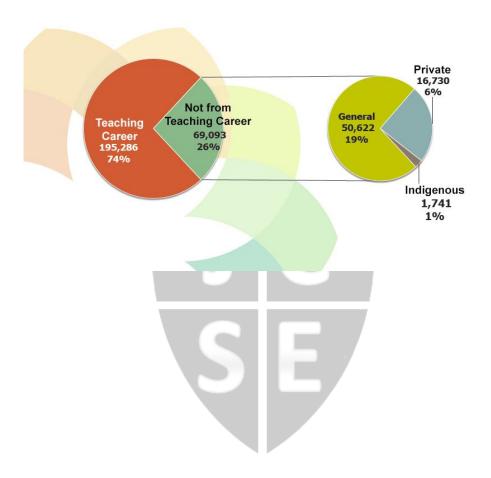
0036: Indigenous Primary Principals

# Priority Level Take the formative option(s) described in the diagnosis during the 2012-2013 school cycle. Take the formative option(s) described in the diagnosis during the period of the first phase of the 2012-2015 Program, or their equivalent from the Catalog of Continuous Training and Professional Improvement for Teachers on duty.

*Figure 4.* Publication of Diagnosis and Formative Paths. Universal Evaluation of Teachers and Principals. 2011---2012. Elementary Education. Source: (SEP, 2012h).



Total of Participant Primary Schools: 264,379 from all over the country



*Figure 5.* Publication of Diagnosis and Formative Paths. Universal Evaluation of Teachers and Principals. 2011---2012. Elementary Education. Source: (SEP, 2012h).

### Number of Teachers by Priority and Test Type



TEST TYPE	TEA	CHERS BY	PRIORITY	TEACHERS BY PRIORITY (%)			
12011112	I II		Total	1	11	Total	
0004: TEACHER IN FRONT OF A 2ND PERIOD CLASS (GRADE 1 THROUGH 3). GENERAL PRIMARY	45,552	76,447	121,999	37.3%	62.7%	100.0%	
0006: TEACHER IN FRONT OF A 3RD PERIOD CLASS (GRADE 4 THROUGH 6). GENERAL PRIMARY	34,558	60,630	95,188	36.3%	63.7%	100.0%	
0035: GENERAL PRIMARY PRINCIPALS	8,860	13,260	22,120	40.1%	59.9%	100.0%	
6804: TEACHERS WITH TECHNO- PEDAGOGICAL TUTORING FUNCTIONS GENERAL PRIMARY	5,537	8,905	14,442	38.3%	61.7%	100.0%	
004I: TEACHER IN FRONT OF A 2ND PERIOD CLASS (GRADE 1 THROUGH 3). INDIGENOUS PRIMARY	2,365	3,470	5,835	40.5%	59.5%	100.0%	
0061: TEACHER IN FRONT OF A 3RD PERIOD CLASS (GRADE 4 THROUGH 6). INDIGENOUS PRIMARY	1,199	1,688	2,887	41.5%	58.5%	100.0%	
0036: INDIGENOUS PRIMARY PRINCIPALS	516	722	1,238	41.7%	58.3%	100.0%	
6805: TEACHERS WITH TECHNO- PEDAGOGICAL TUTORING FUNCTIONS. INDIGENOUS PRIMARY	266	404	670	39.7%	60.3%	100.0%	
TOTAL	98,853	165,526	264,379	37.4%	62.6%	100.0%	