

# THE EDUCATIONAL MODEL OF MEXICAN MANDATORY EDUCATION: ITS IMPLICATIONS IN THE TEACHER TRAINING PROGRAMS

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## ABSTRACT

Based on the case study of Jalisco, the goals and activities that teacher training schools have to consider to meet the challenges posed by the Mexican Educational Reform, enacted in 2013, are analyzed and assessed. The new Educational Model of Mandatory Education and their implications concerning the selection of principals and staff of the Teacher Professional schools, the proper quality of their training programs and the Professional Teaching Service (Servicio Profesional Docente) requisites as well are particularly studied. Some suggestions to improve the performance of the Training Teacher Schools are also offered.

**KEYWORDS:** Educational policies, teacher training programs, Educational Model, Educational Reform, Normal Schools.

## BACKGROUND

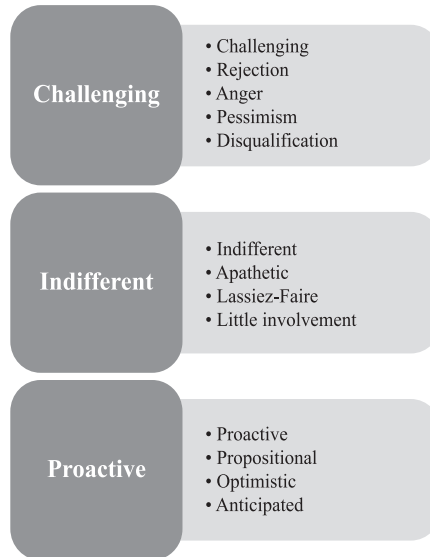
In 2013, the teacher education school level has had its own curricular reform with the implementation of the 2012 curriculum for undergraduate and pre-elementary education; and Teacher Education Schools were still in the stage of operating two different programs simultaneously the previous and the new plan. In that same year the external context was shaken; the Educational Reform began its implementation, and the Teacher Education Schools were expectants of the events that Mandatory Education were living such as: the implementation and operation of the newly issued secondary laws on education, the Professional

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Teacher Service (PTS), the entry process, permanence evaluations to teachers, the manifestations of society against the Reform; and about such developments there were mainly three reactions of the Teacher Education Schools:

FIGURE 1. TYPES OF REACTIONS AGAINST MEXICAN EDUCATIONAL REFORM



Source: Own elaboration, 2017.

- Challenging attitude. –Which consisted off adding to the widespread rejection of the changes posed by the Reform and recent public policies in basic education. Disqualification of the proposals, pessimism to concretize them.
- Apathetic attitude. –Waiting for the Reform to reach them, it would still be four or five years that are now fulfilled, and shows the lack of involvement of the teaching staff and lack of interest by the authorities.
- Proactive attitude. –Act before the imminent fact of future change and following the philosophy of the popular saying that says: *“If you see your neighbor’s beard being shave [...] put your own to soak”*; start with anticipated, propositional and optimistic measures so that the formation of the future teachers was of the best quality.

The diverse actors of the education that have a proactive attitude, envision the Educational Reform in Mandatory Education as an area of opportunity to implement public educational policies that allow the academic growth of the initial formation; these opportunities were used by many Teacher Education Schools in the country.

## JALISCO CASE

In Jalisco, in 2013 an educational public policy was implemented to promote the academic and transformational leadership of Teacher Education Schools; a policy that still has an impact on teacher training institutions. The Secretary of Education significantly supported the Entity's Teacher Education Schools, working tirelessly to get students to achieve quality performance standards in admission assessments; two were the main strategic actions of the policy:<sup>1</sup>

1. Selection of managers in a process based on academic merit through a public competition.
2. He explicitly stated to the new managers what he expected of them: They would have three years to prepare and create the necessary conditions in the Teacher Education Schools of the entity so that the graduates of those institutions were successful.

The conditions were prepared in the face of the alleged threat of the participation of graduates of other university degrees in the opposition exam for admission to the SPD in 2016 displacing the Teacher Education Schools graduates and there was a risk that they would not be able to approve the examination against college applicants. For the first time, the educational sector is open to professionals with a vocation for teaching, but with a diverse college education (SEP, 2014, p. 140), expanding and diversifying the field of competence.

The results of these strategies were surprisingly positive and against all odds, the entity achieved that the generations 2014, 2015 and 2016 obtained results above 95% of suitability, a unique and extraordinary case in the country compared to the results of other entities. In this way, and only a year after changing to Managers of Teacher Education Schools, they get the graduates to obtain their place under the regulations of the SPD, on their own merit and thanks to the training that Teacher Education Schools offered. We can say that this is an example of pro-active attitude in implementing a public education policy for initial training due to changes and reforms. Finding the areas of opportunity in front of the challenges that the external context imposes on Teacher Education Schools is one of the first tasks that must be assumed.

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<sup>1</sup> The strategic actions to realize an educational policy always carry attitudes and reactions previously described. In particular, these two strategies were generated through processes that are analyzed under different observation magnitudes, but are not subject to analysis in this article.

## **EDUCATIONAL MODEL FOR MANDATORY EDUCATION**

After four years of that experience, which today continues to bear fruits; in 2017, new challenges are being lived; the Educational Model for Mandatory Education presented during the month of March, declares itself deeply humanistic, with great differences to the 2012 syllabus for Bachelor Degree for Elementary and Pre-school Education. Likewise, the Model serves four levels of education: preschool, elementary, jr high school and high school assigning new tasks to Teacher Education Schools; and among them are these institutions to prepare teachers to teach children and young people to:

- Know how to learn new skills permanently;
- Know how to use information and knowledge to their advantage;
- Have values and attitudes for harmonious coexistence and the strengthening of peace and democracy (SEP, 2017, p. 129).

Among many others that are incorporated in their approaches. It also takes up the recurrences proposed by UNESCO for the profile of teachers; some are that the teachers have:

- Appropriate disciplinary and pedagogical knowledge; of the academic tradition (Liston and Zeichner, 1999).
- The skills to learn by themselves, from the tradition of social effectiveness (Liston and Zeichner, 1999) in a liquid society (Bauman, 2008). The attitudes and values to understand the multiple needs and contexts of their students from the tradition of Social Reconstruction (Liston and Zeichner, 1999).

Makes clear that if teachers have these characteristics make a huge difference in the success of learning of children and young people (UNESCO, 2015).

## **CHALLENGES FOR INITIAL TEACHER TRAINING IN MEXICO**

Zygmunt Bauman (2008) mentions that we live in liquid modernity; that everything is disposable and that education is no longer seen as a finished product; but as a process where knowledge must be constantly updated; precisely because the data and information is impermanence get transformed minute by minute. Key learning precisely alludes to the constant change and therefore, Teacher Education Schools should continue with the same dynamic. Within the Educational Model pages (SEP, 2017) are phrases like:

Build an initial training that guarantees the good performance of those who join the teaching profession (SEP, 2017, p. 127).

The Teacher Education Schools should focus on teachers being able to build environments that encourage the achievement of expected learning by students (SEP, 2017, p. 128).

To reinforce confidence in the professionalism of teachers as agents able to discern the application of the curriculum to students with heterogeneous characteristics and active participants in the learning process (SEP, 2017, p. 130).

In different sections, as if not wanting, Teacher Education Schools become protagonists of educational change; but above all they bear the responsibility for the quality of the performance of their graduates; at the outset, there is a core questioning. Should they also attend to the training of the teachers of the High school level? The Educational Model does not mention it explicitly but fails to see between the lines that are Teacher Education Schools those that carry on their shoulders the quality of the training of teachers of Mandatory education.

Very explicitly the Educational Model for Mandatory Education is a section III. 4 **Initial Formation**, where they describe the expected changes from the Teacher Education Schools of the country; for the purposes of this study 12 major challenges grouped into three broad categories have been identified:

- A. A group of 6 general quality challenges that also apply to higher education institutions and that Teacher Education Schools have already been working for several years and that significant progress is now required to consolidate the achievements they have achieved.
- B. A group of 2 curricular challenges, specifically pedagogical and specialized that impact the syllabus of bachelor degrees in education.

FIGURE 2. CLASSIFICATION OF THE CHALLENGES FOR NORMAL SCHOOLS



Source: Own elaboration, 2017.

- C. Group of 4 challenges transversal to all Mandatory education and that the future teachers must face and successfully surpass because they are applied to the levels of preschool, elementary, junior high school and high school.

The challenges have been associated with the expectations that the Educational Model for Mandatory Education present for the training of teachers; likewise, some proposals and current trends in teacher training have been proposed, which in no way pretend to be exhaustive, but which should be considered when implementing an educational policy:

<b>TABLE 1. TEACHER EDUCATION SCHOOLS CHALLENGES IN THE FACE OFF THE EDUCATIONAL MODEL OF MANDATORY EDUCATION</b>			
	<b>Expectation of the Educational Model</b>	<b>Challenge</b>	<b>Proposal</b>
<b>GENERALS</b>	That Teacher Education Schools update and drive changes	1. To continue to be the mainstay of initial teacher training	Trends 1, 2, 3, 4 and 5 and a proposal for modification of organization, management and granting the legal personality as HEI
	To attract the best students	2. Strengthening and consolidate entry processes	Trends 1, 2, 3, 4 5, and 6. And a proposal of modification of organization, management and promotion in institutions of higher education
	Be solid and quality accredited schools	3. To obtain the Quality Accreditation by COPAES or CIEES	Trend 2. Case studies of accredited Teacher Education Schools. -Continue with institutional self-evaluation
	Have adequate infrastructure	4. Improve, modernize infrastructure facilities and cutting-edge technological equipment	Grant budget for infrastructure maintenance increase in the budget of federal programs PACTEN
	Have trained teachers so that they can carry out their teaching and research functions	5. To improve the profile of academic professors by creating an incentive system that promotes academic excellence	Trend 1, 2, 3, substantially modify the RIPPA in each Teacher Education School. Strengthen PRODEP for Teacher Education School
	Generate learning environments	6. Generate adequate environments for permanent learning	Trend 1. 4 Localized training -case studies- pedagogical clinic

SPECIFICS	Align the programs of the Bachelor Degree in Education to the pedagogical approach of the Educational Model	7. To offer relevant study programs and aligned the Educational Model	Trends 1, 2, 3, 4, 5 and 6.- Curricular redesign of the syllabus of diverse bachelor degrees in education of the Teacher Education School and their graduation profiles
	Link with universities for training in disciplinary content	8. Increase linkages and cooperation with other local, national and international HEI	Trends 1, 2, 3, 4, 5 and 6 and a proposal for modification of organization, management and granting the legal personality as HEI
TRANSVERSALS	That Teachers master English and know how to teach it	9. Generate generations of bilingual teachers: English and, where appropriate, some indigenous language	Trends 1, 2, 3, 4, and 5.- Curricular redesign of the syllabus of diverse bachelor degrees in education of the Teacher Education School and their graduation profiles
	That teachers incorporate ICT into learning processes	10. To promote creativity, innovation and entrepreneurship in the normal students for the creation of digital learning objects	Trends 1, 2, 3, 4 and 5 include sufficient curricular areas in the new syllabus
	Train teachers to promote coexistence and inclusive learning environments where diversity is valued	11. Educate trainers to transform the teaching practice in which diversity, inclusion and social justice are contained	Trends 1, 2, 3, 4, 5 and 6.- Curricular redesign of the syllabus of diverse bachelor degrees in education of the Teacher Education School and their graduation profiles
	Teachers who attend the NEE of the students	12. Improve and consolidate the training processes for the attention of the NEE in the diverse bachelor degrees in Education	Trends 1, 2, 3, 4, 5 and 6.- Curricular redesign of the syllabus of diverse bachelor degrees in education of the Teacher Education School and their graduation profiles

Source: Own elaboration from SEP, 2017 *Educative Model of the Obligatory Education*.

### **General Quality Challenges**

The first six challenges are established by the CIEES or by the accrediting body COPAES and are **quality indicators**; 57 of 265 Teacher Education Schools have been working in them for several years. In Jalisco of 11 Teacher Education Schools only 3 are certified and only one in the whole country is accredited by COPAES; this achievement is considered to be from the implementation of the policy of selecting managers for academic merit. Therefore, they represent more than a challenge an incentive to continue working along this line and consolidate the improvement actions they have achieved, and will always require financial support from federal funds such as PACTEN and PRODEP.

1. Promote changes to update and continue being the mainstay of initial training of teachers of basic education. –Contrary to what the detractors of the Education Reform predicted that Teacher Education Schools would disappear; the challenge is the curricular redesign, and the change in their organization, management and of course in the way government system of institutions generate public policies that grant adequate legal personality to each institution of normal education.
2. Strengthen and consolidate the entry processes. –Given the expectation of the Educational Model to attract the best students, Teacher Education Schools face a double challenge; on one hand, the processes of selection of candidates for admission to Teacher Education Schools must be strengthened and consolidated; be strict and rigorous so that the best candidates enter, and not rigid in such a way that they block the entrance or too permissive that allow the admission of the less competent, and on the moreover, Teacher Education Schools must work in the modification of the collective imaginary with respect to the teaching task and the Teacher Education Schools formation with a dubious reputation left by the events in 2014 of the 43 students who disappeared from Ayotzinapa Teacher Education School; no parent wants their children to run with the same fate.
3. To raise the quality of training, to obtain accreditation and certification of interinstitutional bodies. –The expectation of the Educational Model is that Teacher Education Schools “... are solid schools in their organization as institutions of higher education accredited by the quality of the services that Offer” (SEP, 2015, p. 145). That give account of the achievements and advances but also of the needs and challenges of the level. The challenge is to raise the quality of training received by normal students and to accredit it the Teacher Education Schools of the country should achieve CIEES recognition or join the COPAES membership, educational policies should focus their efforts on substantially transform the government system of Teacher Education Schools by granting them a legal personality and institutional autonomy that strengthen their processes to cover each and every indicators of the assessments and achieve certification the 80% of the missing schools.
4. Have adequate infrastructure, modern and dignified per higher education with state-of-the-art facilities and equipment. –Strengthen and consolidate financing program PACTEN for maintenance and with legal personality will not have as many problems for the exercise of its budget.
5. The expectation of the Model is that Teacher Education Schools have trained teachers, in addition to their individual profile, academic collegiality should be promoted among teachers and between different fields of knowledge in



all substantive and adjectives diversified areas. The challenge is to design an incentive system that promotes excellence in Teacher Education Schools and encourages institutional changes. It should support the strengthening and continuous professionalization of the teacher's workforce so that they can carry out their teaching and research functions (SEP, 2017, p. 144). The challenge is to substantially modify the RIPPA so that the working conditions are of real institutions of higher education and quality; as well as grant financing to the Teacher Education Schools in programs such as PRODEP and significant participation in CONACYT. This requires the modification of substantial public policies in the field of normal education.

6. Generate environments that are conducive to permanent learning for future teachers through learning with tutorial models in practice such as situated training, dual training and pedagogical case studies.

#### *A. Specific and specialized curricular pedagogical challenges*

Challenges 7 and 8 represent important work on curricular reforms, redesign and updates of the 2012 Plan for Bachelor degree in Preschool education, elementary and Intercultural and Bilingual Education and the other 1999 plans for junior high school, Special and Physical Education in which, of course, it will be necessary to consider specific topics to the design of curricular academic activities and specialized to the education of the future teacher to successfully apply and perform the Educational Model for Mandatory Education:

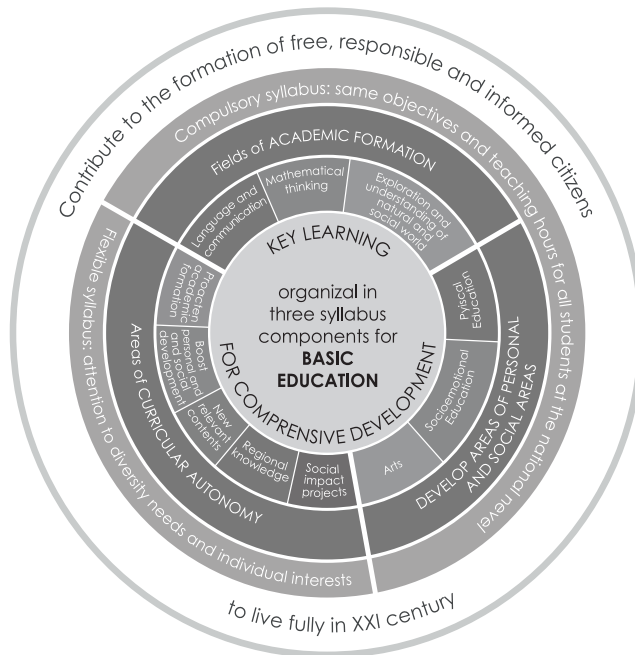
- a. Offer study programs that are relevant and in line with the pedagogical approach of the Educational Model in which they are considered:
- b. Knowledge of the Mandatory curriculum and the flexible curriculum. Formative fields, personal and social development and curricular autonomy.
- c. To deepen in the curricular knowledge of the key learnings and their didactic.
- d. Develop the socio-emotional skills of the future teachers and learn their didactics for the successful development in the students of basic education.

It is necessary to explain at this moment the obvious; the socio-emotional abilities that the humanist component of the Educational Model provides is new in an institutionalized curriculum at the national level. There are important questions now: How will our normal students do this? How will they teach something that they do not know? And this is the most important part of the challenge. There is no curricular space in the 2012 curriculum that addresses techniques or procedures in this area and is not present in the redesign that is being worked on. Certainly, each teacher training institution will include

projects, mechanisms and strategies that allow the Teacher Education School community to develop these skills.

Among the theories and concepts related to the subject are: emotional intelligence, resilience, assertiveness, stress management (quite severe problems in the teaching plant) among many others; will now be part of the activities of teachers of Mandatory education, and therefore, will form an important part of Teacher Education Schools.

FIGURE 3. KEY LEARNINGS FOR THE INTEGRAL DEVELOPMENT



Source: SEP, 2017.

This innovation is applauded; one of the author's degrees is in psychology, and it has always been considered that teachers should be **emotionally healthy**. It is hoped that in Teacher Education Schools they will give students tools to stay healthy; Is the only way to promote society's peace culture; Achieving first the internal and personal.

### ***B. Development of teaching competences to take advantage of the curricular autonomy of the model of education***

In the Educational Model of Mandatory Education, one of its strategic projects for implementing the Educational Reform is to put the School in the Center and school autonomy. This is one of the challenges in which we must work with greater care; because Teacher Education Schools have not been able to develop

this curricular autonomy, how can they develop this set of competences in students when these same institutions do not know?

Specific skills are required in the academic body; course design, course planning, workshops or complete subjects to be carried out throughout the school year. Here it is important that the normal student develops his/her ability to make decisions based on the contextual needs of the school in which he/she works to make the most of this space and the normal school must provide these tools.

**FIGURE 4. SYLLABUS AUTONOMY IN BASIC EDUCATION**

This component offers all basic education schools the unparalleled possibility to decide one part of their own syllabus. The syllabus autonomy is ruled by inclusive education principles that looks after the needs and interested of each student. Each school will determine in its technical school councils –taking into consideration the students and technical school councils with social participation opinions– the pragmatic contents on this component based in the learning hours available, in accordance to the guidelines issued by SEP to norm curricular spaces.\*

The syllabus autonomy allows to group girls boys and young by skill or interest, so students of different grades and ages can share in the same curricular space, the five areas in which is organized are:

FIVE AREAS OF SYLLABUS AUTONOMY	EXAMPLES
1. Deepening of academic formation	<ul style="list-style-type: none"> <li>· Language and communication: creative writing workshop, English, debates</li> <li>· Mathematical thinking: playful mathematics workshop</li> <li>· Exploration and understanding of natural and social world: technology workshop</li> <li>· Climate change and conditions workshop</li> </ul>
2. Expansion of social and personal development	<ul style="list-style-type: none"> <li>· Sports leagues: football, baseball basketball, etc</li> <li>· Scholar Orchestras</li> <li>· Theater, dance and painting workshops</li> <li>· Scholar convinnance workshops and other spaces for emotional development</li> </ul>
3. New relevant contents	<ul style="list-style-type: none"> <li>· Finance Education</li> <li>· Programming</li> <li>· Robotics</li> <li>· Skills to start ups</li> </ul>
4. Regional and local contents	<ul style="list-style-type: none"> <li>· Microhistory</li> <li>· Technologies workshop</li> <li>· Local crafts workshop</li> <li>· Growing local vegetables and medical plants</li> <li>· Contextualized ecological education</li> </ul>
5. Boost to social impact projects	<ul style="list-style-type: none"> <li>· Waste cleaning in the community</li> <li>· Community and school water purification</li> <li>· Scholar democracy</li> <li>· Elimination of learning barriers of all members os school community</li> </ul>

\* The number of hours whose contents will be determined with syllabus autonomy varies depending on the level and educational modality. For example, an elementary school of regular schedule are able to have up to 2.5 learning hours of 50-60 minutes each week of autonomy syllabus. But if it is complete schedule is go up to 20 hours weekly.

Source: SEP, 2017.

### C. But above all, that the Teacher Education School students develop a deep capacity to learn to learn

Learning self-management is a complex proficiency, priority in a liquid society (Bauman, 2008), which entails difficulty in changing family dynamics and achieve academic independence. To be self-didactic, to design and to make decisions in its own course of formation, to organize the agenda and the schedules of the subjects in a semester are some of the activities that evidence the competence to learn to learn. It will be the institutional dynamics of the normal that encourage them to develop this competence; but also, the student's attitude of learning will be decisive to achieve this. To increase and strengthen academic linkage and cooperation among Teacher Education Schools; but also with other HEI in the state, national and international.

The expectation is that there is a shared space between the universities and Teacher Education Schools in which they exchange knowledge that each one is expert; that they share the disciplinary learning in the universities and the pedagogical and didactic dominion of the Teacher Education Schools; each in its areas of strength to positively impact Mandatory education through the creation of synergies between HEI and academic mobility programs not only for students but also for teachers:

FIGURE 4. LINKING NORMAL SCHOOLS – PUBLIC UNIVERSITIES

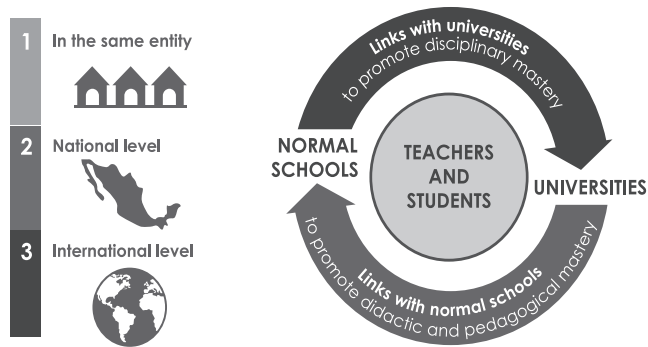


Figure 6. mobility students and teaching schemes in normal schools

Source: SEP, 2017.

In order to achieve this, Teacher Education Schools must reach the required academic and institutional maturity through their own legal personality, which is indispensable for transit and “ensure that Teacher Education Schools are consolidated as authentic institutions of higher education” (SEP, 2017, p. 147). Each Teacher Education School was created by Decree; some Teacher Education Schools were founded during the nineteenth century, and the majority

before 1985 in which they rise to higher education Rank. Modifications have been made to the decrees to extend its name to “Venerable and Centennial”; because it is time that a decree is generated by the United Mexican States Congress Union in which the Governments of the Federative Entities are urged to modify the legal personality of the Teacher Education Schools without losing their Teacher Education Schools identity.

At least in Jalisco, none of the eleven Teacher Education Schools has educational autonomy because of the nature of the educational programs offered there; nor own legal personality; element that prevents participation in Academic Development Programs such as PRODEP, or research as CONACYT; or access funds and financing like federal or international Scholarships. The changes of the reform, the current society, the indicators of quality drive and push us to generate the basic and imperative conditions to have it. It will not be possible to achieve institutional maturity if they are not allowed to grow legally. The linkage and academic cooperation with other HEI, today, is concretized through the management of infinite administrative procedures which prevents the consolidation as HEI. The synergies with the Universities that Educational Model speaks will be displaced if they do not consider this process first and something is done about it; or finally after a decade Teacher Education Schools will be blamed of not achieving the expectations.

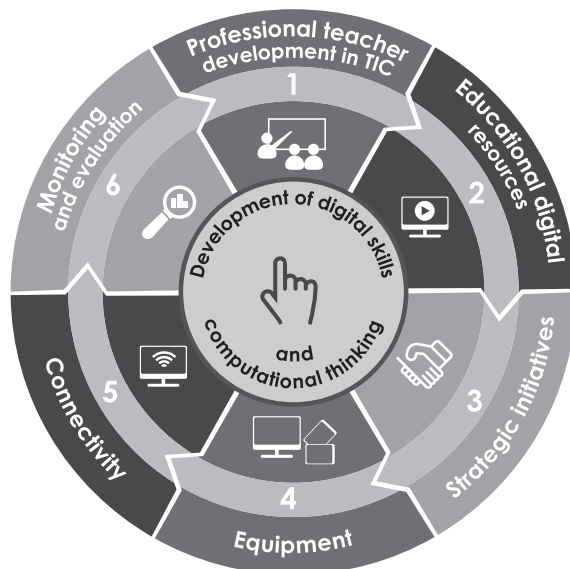
#### *D. Transversal Challenges*

The following four challenges; are not new, now with the Educational Model the expected results have been defined and refined and are also transversal to the entire system of Mandatory education in the country so Teacher Education Schools must respond with congruence.

- a. It is important to consider that the graduates of the Teacher Education Schools must also possess certifications in English not only mastery of the language but also the didactics in basic education as a second language; significant challenge for the principals and teaching staff of each Teacher Education School; because it implies that they must be able to develop the conditions of the profile required by their main employer in the normal students. To do this, it will be necessary to operate a series of mechanisms and strategies, such as: raise the requirements to obtain the degree, increase the requirements of entry to the SPD, have a budget for hiring bilingual teachers in Teacher Education Schools, strengthen academic mobility of students and teachers to English-speaking institutions, strengthen bilingual training during the stay in Teacher Education Schools, among others.

- b. An important element is to develop in normal students the skills to incorporate ICT in the learning process; these competences are already considered in the current curriculum of LEPri and LEPre 2012, the challenge is to promote innovation and entrepreneurship to develop learning objects and be more creative in the design of more dynamic learning environments like management of different tools such as *@ aprende 2.0* of the SEP or the learning of robotics and its didactics.

FIGURE 5. DEVELOP OF DIGITAL SKILLS



Source: SEP, 2017.

- c. Equity, inclusion and diversity are crucial in the Educational Model for Mandatory Education; therefore, they become extremely relevant to work as transversal axes in the study syllabus of the different bachelor degrees offered by the Teacher Education Schools. To train teachers that promote inclusive coexistence and learning in environments where diversity is valued (SEP, 2017, p. 143); and, to be formed in interculturality; strengthen and consolidate bilingual intercultural bachelor degrees' programs.
- d. An element that continues to exist is to train teachers who are competent to serve students with SEN; this is not a new challenge, but training processes in this area should be consolidated and improved. At least one curricular space should be considered in those bachelor degrees that do not focus on special education.

## TRENDS IN TEACHER TRAINING

To meet the needs imposed by the Educational Model, the challenges must be assumed as soon as possible; the Teacher Education Schools have to decide with which attitude they will face them: a) reactive. –They reject and they are annoyed by the tasks that must be fulfilled; b) apathetic. –Wait to be told what to do; or c) proactive. –Seek and propose projects to successfully achieve the transition; And assuming that Teacher Education Schools are proactive, they should consider and start from some trends in teacher training.

### *Two Types of mixed teacher training*

#### a) Dual Formation

It is defined as “the set of training and mixed actions and initiatives combining employment and training, which aim at the professional qualification of workers in a system of alternation of work activity in [the school of basic education] with the training activity received under the vocational training system for employment or the education system” (CCT, 2017).

In France, the dual training type is used in the last year of ESPE; teachers are hired and become the head of the core group they attend and at the same time attend college to complete their formal studies. In Mexico, it has been implemented in the business field for the training of professional staff and is implemented in the ongoing training of teachers. The key is that the trainee has a remunerated job with responsibility and returns to the university for his studies in permanent training.

#### b) Located Training

In Mexico, with the implementation of the SPD, we begin to work with the located training that is defined as: a set of articulated actions that promote the teacher’s permanent learning centered in the classroom, promoting the generation of spaces for the collective construction of pedagogical knowledge (Ministry of National Education, 2012) through peer support, dialogue and criticism. The training experiences are based on a premise: *who has a person to share their concerns and difficulties, has greater tools to transform their work*. Strategies are organized around classroom practices, in which teachers expose their teaching problems, to work in learning communities (Ministry of National Education, 2012).

Within the framework of the Educational Reform in Mexico, this type of training for teachers; has been institutionalized in three main areas: technical school councils, SATE and tutorial accompaniment for new entry teachers or promoted during the first two years assigned by the SPD who will be hired

during this period and will be evaluated to finally grant them a permanent teacher position.

In the case of Teacher Education Schools, during professional practice a combination of both types of training is handled which involves a tutorial accompaniment of the teaching practice of students with some variants:

- It is dual training because they go to schools of practice and return to Teacher Education Schools, the variant: they are not contracted, don't have a job.
- It is located training because they go to practice schools and the tutor of practice feedback them in the classroom, participate in the technical school councils, the variant: they do in Teacher Education Schools the collegial work and reflection of teaching practice not in schools of practice.

### ***Learn through case studies***

It is a research method characterized by the systematic and in-depth analysis of an educational element; has been imported from the methodology to be used as a didactic strategy for teacher training and professionalization. The trend is to generate a “case bank” for Teacher Education School students to analyze; the “bank of pedagogical cases” can be fed from the experiences of students' own practices, documented and incorporated into the case bank to be used by professional practice teachers or by teaching practice tutors.

We must remember that this technique is the one that allows the development of intellectual skills like the one to analyze, to understand, but mainly to act in the moment; competencies included in the graduate profile. It is also necessary to remember that it is a technique used in the elaboration and design of reactive in the opposition tests with which they will be evaluated once they graduate, therefore, Teacher Education School students should be familiar with it.

### ***Virtual education***

This is a mega trend in teacher training also known as online education. The training modality has cyberspace as scenery of the teaching-learning process; and by accommodating to student's time, solves many of the needs of teachers working away from urban areas; for that reason, the modality of continuous on-site training is not the option for them.

But in addition, Teacher Education Schools should adopt this trend, as the use of ICT in education will enable them to facilitate learning for children in basic education. Use virtual learning platforms like EDMODO, MOODLE, CLASSROOM, among others; will prepare our students to be better teachers and not only to use them but to turn them into true tools for learning.



### *Inverted classrooms*

Formal education has been overtaken in this age of liquid modernity (Bauman, 2008) by the amount of information that is produced minute by minute. Students of all levels and modalities learn more outside of school than within it. The tendency to learn to learn permanently takes advantage of the opportunity that the context offers so the school gives a space for reflection of all the information that is received. This trend is called inverted classrooms. It is a different didactic that it is convenient that Teacher Education School students know and dominate to improve their professional performance and to increase children and young people learning achievement of obligatory education.

### *Didactics of robotics*

Trend that supports us to overcome the challenges 6, 7 and 10. To learn robotics, to build and to program robots seems to be fashionable in this society of the knowledge. In addition, that learning robotics is fun and generates a dynamic learning environment in basic education classrooms; children learn to think, develop mathematical thinking and logical thinking, indisputable competencies of the graduate profile. With a small experience of participating in the Mexican delegation in France at the CANOPÉ I could highlight the importance of considering programming as a strategy for development of skills in children.

Being in CANOPÉ, a resource center for teachers, the exhibitor tells us that they are taught robotics and programming to children since elementary school because in France they are taught for life; for the future; And when 8-year-olds grow up, the school must have given them all the tools to work, even in jobs that have not yet been created; For jobs that currently do not exist (Flores Talavera, 2016).

Normal School students must assume this capital challenge; the Teacher Education School students of today and the next years will be the teachers of children who have not yet been born; and that they will surely work on something that has not yet been conceived; and today it is impossible to imagine; for example, today, one of the best paid jobs in the world is to be a drone pilot; and the people who hold this job were not trained in formal education; surely in the future there will be jobs from which the school must be able to form competencies for them and teachers should be able to attend to them.

Therefore, it is proposed that our students learn the didactics of robotics since basic education. Why? In addition to the intellectual benefits mentioned

above that are established in the graduate profile of Mandatory education; there is one more challenge: the elementary school teacher must know how to use and apply teaching competencies to take advantage of school autonomy. In the Educational Model of Mandatory Education, we propose in the flexible curriculum of the area of school autonomy a space that considers relevant new content and one of them is Robotics, how can it be operated if teachers lack this knowledge? Teacher Education Schools should support the deep development of creativity and innovation.

***Specific programs and proposals: live the harmonimeter,  
co-curricular art and civic education workshops***

One of the great strengths of Teacher Education Schools institutions is their co-curricular, for-school or complementary workshops that are offered in a diversified and contextualized way in each Teacher Education Schools of the country, in these spaces the future teachers prepare and learn contents that are not found in the syllabus; Among which we can mention: psychomotricity, didactic material workshop, war band, ceremonial to the flag, school emergency workshop, music workshops, dance, theater, and sports such as football, basketball and volleyball.

This trend of training in Teacher Education School education should not be lost, on the contrary it should be encouraged, consolidated and transcended. Teaching art: music, dance, theater, learning to play in a war band, forming an escort, participating in sports groups, among other activities are an important part of the educational model for Mandatory education in the personal and social development areas. It is something that should not be abandoned or stopped, because it is the hallmark of the Teacher Education Schools that have forged the national identity of this country.

## **CONCLUSIONS**

Today, at national level, educational projects are being carried out for the initial training of teachers in which student mobility and bilingualism are promoted, and are important enough to support the challenges posed by the Educational Model. However, there is no comprehensive education policy that transforms deeply the Mexican Teacher Education Schools and that catapulted the training to top quality so they perform suitably at the beginning and prominently afterwards in Mandatory education.

As well as the creation of an Educational Model of Mandatory Education combining wills, efforts, visions of all educational actors, so the Teacher

Education School level of education must face the major challenge that considers the legal personality for these HEI, and also design a Model of Initial Teacher Training for Mandatory Education that is comprehensive, inclusive, diverse, of quality, involving all actors: managers, teachers, students; With projects in each field of action: academic, research, management, leadership, administration, evaluation, certification and accreditation, but above all work an educational policy that transforms from its foundations to institutions of higher education high quality. To do so, we consider two routes that are likely to generate great controversy today: either they are granted legal personality or integrated into public universities; Both will require the addition of political, trade union and academic wills; a great effort to make Teacher Education Schools succeed and be successful.

Twelve challenges and six trends are born from an analysis of the impact of the Educational Model of Mandatory Education in the Teacher Education Schools in Mexico; three attitudes and a hyper-complex reality accordingly to Edgar Morín's terms, in a liquid society of Bauman, where educational authorities, managers and Teacher Education Schools professors decide where the education of children and young people in Mexico will go.

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