



Effective Teacher Training Policies to Ensure Effective Schools: A Perspective from Central America and the Dominican Republic

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Abstract

Within a context of unequal development, a great number of children in Central America and Dominican Republic schools show low learning achievement in international tests. Although there are various explanations for this situation, it is widely accepted that well-prepared and committed teachers can make the difference for their pupils in reducing learning gaps and enhancing overall student learning even under adverse conditions. Keeping in mind the complexities of a systemic approach, effective teacher training policies are a key to create conditions and opportunities for school effectiveness and student learning.

The perspectives of three countries were considered: Guatemala, Nicaragua, and the Dominican Republic. Relevant research and a recent study of UNESCO's Regional Office for Latin American and the Caribbean (OREALC/UNESCO) on teacher policies served to guide analyses and formulate recommendations for policy makers, researchers, and practitioners.

... On the one hand, there is now a greater knowledge base for improving teaching than ever before. On the other hand, there is continuous struggle to find ways of helping teachers become aware of, understand, and apply this knowledge in their classrooms (Anderson, 2004, p. 115).

Focused on Central America and the Dominican Republic, this paper highlights the need of effective teacher training policies to create conditions and opportunities for enhancing school effectiveness and student learning. The cases of Guatemala, Nicaragua and the Dominican Republic are particularly considered. The analyses and recommendations have used, as a reference, not only relevant research available but also a recent study of the Latin America and the Caribbean UNESCO Regional Office (OREALC/UNESCO, 2012), which updates the state of the art of the teaching profession and provides criteria for teacher policy development in the region.

According to OREALC/UNESCO (2012), the development of teacher policies requires a systemic approach (see also Vegas, Ganimian & Jaimovich, 2012). Thus, a broad view of the teaching profession should consider pre- and in-service teacher training and other interlinked aspects such as: mechanisms for selection, hiring, promotion and –sometimes– firing teachers; standards and expectations about teacher

performance; salaries and incentives as well as evaluation and accountability. Furthermore, institutions and processes for implementing teacher policies are also important elements for policy analysis: the role of the State, teacher organizations, and other stakeholders; tensions between authority and participation; institutional capacities and resources; short-term demands vs. long-term planning; and budget allocation. While being one aspect of the profession, teacher training remains however a highly important aspect influencing teacher's performance.

In Central America and the Dominican Republic, many children enrolled in primary schools have shown low learning outcomes when measured by international tests. According to SERCE (OREALC/UNESCO, 2008), student learning achievements in Guatemala, Nicaragua, and the Dominican Republic are within the lowest in Latin American and the Caribbean (LAC). For example, while the percentage of students with low performance (level I or less) in reading was 32% for 3rd-grade students in the whole region, those percentages were 44% in Nicaragua, 58% in Guatemala and 78% in the Dominican Republic. Similarly, while the percentage of students with low outcomes (level I or less) in math was 17% for 3rd-grade students in the whole region, those percentages were 23% in Nicaragua, 36% in Guatemala, and 52% in the Dominican Republic. As it is observed in Appendix 2, scores were lower in rural areas in all grades and subjects evaluated.

In general, student learning outcomes tend to be worse for those students with disadvantages related to family income, cultural background, and zone of residence in Central America (Di Gropello, 2005; PREAL, 2007; *Programa Estado de Nación*, 2011). It seems something different has to be done in the future to diminish student learning gaps and increase overall student learning on the basis of effective teacher performance.

Understanding the success or failure of teacher policies is crucial since poor teaching is one of the main obstacles to improve the education systems in LAC (Puryear & Ortega, 2011). From a global perspective, the McKinsey studies have underscored that successful school systems select and retain talented and motivated teachers (see Mourshed, Chijioko, & Barber, 2010). Nonetheless, a significant number of teachers working in Central America and Dominican schools have low level of education, poor cultural background, and weak motivation about their profession (Di Gropello, 2005;

Venegas, 2008). Relevant questions for our analysis are: What are main concerns on teacher policies in Central America and the Dominican Republic? Which are advances and challenges? What can be learned from international research and policy analysis? Which recommendations could be considered by researchers, policymakers, and practitioners?

Teacher policies to improve school effectiveness

Teacher training policies usually develop outside the school. They are mainly designed by Governments and/or teacher training institutions and, to some extent, have the inputs of teachers and other stakeholders. Ideally, teacher training policies are expected to generate conditions and establish requirements to enhance teacher performance and, hence, to benefit student learning at the school level. It could be argued that teacher training policies become effective as they produce synergy with the dynamics taking place inside the school and with those relating the school to its external environment (see Fullan, 2000).

Based on empirical basis of research or the opinion of experienced practitioners, McGinn and Schiefelbein (2010) identified key variables and the relationships involved “in the process by which teacher candidates become highly skillful classroom teachers” (p. 10). They provided an extensive research and policy review on those variables and warn, however, that the strength of causal or associative relationships

between them cannot be determined. In reference to relevant linkages, McGinn and Shicefelbein concluded that the quality of the first year teaching relates to teacher’s competencies and the quality of students in the classroom. In turn, teacher’s competencies relate to the quality of the candidate, the initial teacher training curriculum, the teacher educators, and the length of training. In addition, the quality of future teaching has linkages with mentoring by colleagues and in-service training. It is advisable to note that student learning at any stage also relates not only to the quality of the student but also to the school climate (see OREALC/UNESCO, 2008). We will refer to this for further analyses below. Before, teacher training policy issues will be briefly considered for both the LAC region and the three countries under consideration in this paper.

Critical issues on teacher training in Latin America and the Caribbean

A recent study on teacher policies in Latin American and the Caribbean (OREALC/UNESCO, 2012) reviewed available research and analyzed, more in depth, the cases of eight countries in the region¹. The study found various critical issues that reflect deficiencies of teacher training throughout the region². Those critical issues are listed in the box below and used to review teacher training policies taking place in three national contexts: Guatemala, Nicaragua and the Dominican Republic. Case analysis, however, does not necessarily match with all regional issues since these are rather used as an input to approach each national context.

Table 1 : Critical Issues about Teacher Training in Latin America and the Caribbean

Initial Teacher Training	Continuig Teacher Training
<ol style="list-style-type: none"> 1. Low previous academic achievement of those who enter pre-service training programs. 2. Weak quality of pre-service training programs. 3. Training do not prepare for working with vulnerable children. 4. Insufficient regulation of teacher training programs. 	<ol style="list-style-type: none"> 1. Poor relevance of and lack of articulation between programs. 2. Low impact on teaching practices and student learning in the classroom. 3. Lack of consideration to teacher heterogeneity. 4. Little attention to schools’ conditions and to collaborative learning between teachers. 5. Weak or none regulation of programs, especially postgraduate ones and those offered by private providers.

Source: OREALC/UNESCO (2012).

1. Besides a review of available research and information, the study received inputs of public officials, experts, and teacher organizations from the following countries: Argentina, Brazil, Chile, Colombia, Guatemala, Mexico, Peru, and Trinidad and Tobago. See: <http://www.politicasdcentesalc.com/>
 5. The study also identified critical issues about two other themes: the teacher career (carrera docente) as well as teacher policy institutions and processes. In addition, it formulated criteria for policy development in all themes. This paper considers only those critical issues on initial and continuing teacher training.

The Case of Guatemala

In Guatemala, teacher policies have had the framework of a national education reform, which started after the Peace Accords³ signed in 1994-1996. Under this context, education reform initiatives included educational policies to prepare, hire and give appropriate incentives to human resources to meet the needs of the education system. Actions to improve teacher training have been carried out over the last decade but they have not been institutionalized.

Initial training for preprimary and primary teachers takes place at the secondary education level with a length of three or four years of studies⁴. In the last years, curriculum reform of teacher training has been implemented to some extent. Besides, public debates and policy proposals have dealt with the issue of upgrading teacher training and placing it at the tertiary level. Although there has not been success yet, a new program, beginning by 2013, is expected to require three years of higher education to teach at the preprimary and primary levels (Alvarez V., 2009; Meza, 2012; MINEDUC, 2012).

In 2011, initial teacher training was provided by 87 public schools (*escuelas normales*) and 527 private ones⁵. The latter are approved and supervised by the Ministry of Education (MINEDUC); however, supervision focuses on administrative aspects but lacks of pedagogical monitoring (CIEN, 2011). There is a concern about the quality of initial teacher training

and, hence, about the competences teacher acquire by such training. For example, 5,273 teachers took a diagnostic evaluation in 2011 to apply to a position in the school system. The results were disappointing: the expected performance level was reached by 45% of the teachers in reading and only 40% in math (see CIEN, 2012). It has been argued that the quality of teacher training curriculum is not aligned with the goal of achieving quality of student learning (Álvarez & Schiefelbein, 2007). Table 2.

In reference to continuing teacher training, a variety of initiatives have been implemented over the last decade. Most of them have received sponsorship from international agencies or national organizations⁶. This support compensates for MINEDUC's weak offer and scarce resources allocated to teacher training. But empirical evidence has shown that short-term in-service training activities have little impact on improving teaching practices in the classroom. In-service training coverage is insufficient and its content does not meet the current needs of schools (PREAL/FLACSO, 2010).

To provide a formal degree to teachers who already work in public schools providing preprimary and primary education, the MINEDUC created the Academic Program for Teacher Development (PADEP/D) in 2008⁷. Consensus with teacher organizations (*Asamblea Nacional del Magisterio*) was reached for this program, which was supported and published by the *Universidad de San Carlos* (MINEDUC, 2012; USAC, 2008).

Table 2 : Route to Become a Teacher in Guatemala

Level of teaching	Length of initial teacher training	Requirements for entrance and selection procedure	Degree received
Primary or preprimary	Three or four years at the secondary level (<i>carrera de magisterio</i>) in: <i>escuelas normales</i> (public or private).	Completed <i>Tercer Año Básico</i> (nine years of basic education). There is no formal process for selection (some <i>escuelas normales</i> implement internal selection procedures). There is a system of vacancies (<i>cupos</i>). Admission tests are applied.	Teacher of primary or preprimary for rural or urban schools. Various specialties like intercultural-bilingual; music, and physical education.
Secondary	Three years of <i>profesorado</i> studies taken at the university level.	Admission tests.	Secondary education teacher.
University	Four or five years leading to a higher education degree.	Admission tests.	Licenciatura in pedagogy or education.

Source: Meza (2012) and OREALC/UNESCO (2012).

3. Signed between the Government and opposition armed groups, the Peace Accords included socioeconomic aspects, land distribution and property as well as the identity and rights of the indigenous populations.

4. Training to teach in secondary education requires a degree of at least three years of higher education.

5. In contrast, other Central American countries have few teacher training institutions. For example, El Salvador has nine, which are located at the tertiary level. Honduras has one university and eight *escuelas normales* (Meza, 2012).

6. International agencies include USAID, Spanish Cooperation, GIZ, UNICEF, UNESCO, Japanese Cooperation, and others. On the other hand, national organizations include private foundations, professional associations and NGOs.

7. Appendix 1 shows the percentages of teachers with expected training in Guatemala and other countries in Central America and the Dominican Republic.

Critical challenges for teacher training policies in Guatemala include:

- (a) Teacher training (both initial and continuing) is not aligned with other elements –like standards, textbooks, and assessment – that are expected to impact on educational quality (Álvarez y Schiefelbein, 2007; CIEN, 2011; PNUD, 2010; PNUD 2012; PREAL/CIEN, 2008).
- (b) Selection processes to enter initial training programs are not rigorous; therefore, the best candidates are not attracted to the teaching profession⁸.
- (c) After initial training, few teachers manage appropriate competencies to teach well. Related to this situation is the low professional level of teacher educators and the lack of relevance of the teacher training curriculum. Despite recent efforts of the MINEDUC and the new initiatives to be implemented in the near future, teacher training policies lack of institutionalization (CIEN, 2012; CIEN, 2011; Meza, 2012; OREALC/UNESCO, 2012; PREAL/CIEN, 2008; USAC, 2008).
- (d) Continuing teacher training is insufficient in terms of coverage and quality. There exists a variety of initiatives, and the PADEP/D is being implemented; however, current problems include: administrative centralization, inappropriate mechanisms for communication, weakness of some program coordinators, insufficient advisors who, in addition, have blurred functions while giving support to teacher training (MINEDUC, 2012).
- (e) There is no institutionalization of continuing teacher training, delivery of content is not effective and there is no follow-up to support teachers in the classroom (CIEN, 2012; CIEN, 2011; PREAL/CIEN, 2008; PREAL/FLACSO, 2010).
- (f) Consistent with (c) and (e), teacher training policies are not sustainable over time (PNUD, 2010; Alvarez, 2009).

The Case of Nicaragua

Nicaragua's Education Law (2006) establishes free and compulsory education from 3rd level of preschool to 6th grade of primary education (with expected ages from 5 to 11). Although free in public schools, secondary education is not mandatory (Castillo A., 2012).

Like Guatemala, initial training for primary school teachers remains at Nicaragua's secondary education level. In most of Latin America, however, a requirement to enter initial teacher training is to have completed 12 years of formal education. Currently under a pilot phase, the *escuelas normales*' new curriculum leads to a primary school teacher degree, which requires three years of studies after the candidate has completed a nine-year basic education. There are 12 *escuelas normales*, eight of which are administered and financed by the Ministry of Education (MINED); the other four *normales* are privately managed and receive public subsidy.

The expansion of primary school coverage in the last decade (2002-2012) has resulted in an increase of 30% in the amount of teachers. Within the school system, primary teachers work in two kinds of modalities: regular monolingual (62%), which has the largest student enrolment, and multi-grade (32%), which is perhaps amongst the most complex forms of teaching. Initial teacher training has not usually prepared teachers to work in a multi-grade classroom. In response to this shortcoming, the new *escuela normal's* curriculum includes specialized training to teach in a multi-grade environment. In addition, the MINED is implementing a pilot teacher training program specialized in pre-school education.

Related to the accelerated expansion of education access over the last decades, 20% of primary school teachers and 35% of secondary education teachers do not hold a diploma certifying them to teach. Low teacher salaries⁹ are one the aspects influencing the low interest of youth in the teaching profession, forcing the MINED to continue hiring unqualified teachers and to hope they complete their training while in service. That is why, in recent years, the *escuelas normales* have been actually providing in-service training, which actually aims at expected teacher training (figures about percentages of teachers with the expected training are shown in Appendix 1).

8. There is no rigorous selection process to hire teachers, either. Although candidates applying for a position in a school take a test, the score has low weight within the criteria used for selection. Besides, economic incentives emphasize time of service in the school system instead of teacher performance (PREAL/CIEN, 2008; CIEN, 2012).

9. The Teaching Profession Law regulates the practice of the profession in Nicaragua. Wages are based on a formula that considers: degree obtained, years of service, and geographical location. The Law is binding on both public and private schools (although private schools often have their own internal norms). A scoring system allows for each teacher to accumulate scores throughout his/her career. This is the basis for possible promotions from a classroom teacher position to, for instance, another position as MINED official at the central level. The monthly salary of primary teachers working in the public sector, which gathers 80 percent of all teachers, is approximately US\$ 200, the lowest in the Latin American region. The salary of teachers in secondary education does not exceed an additional 10 percent. Countries whose students have high learning achievement show the importance of giving competitive salaries and social recognition to talented youth join the teaching profession (Darling-Hammond & Lieberman, 2012).

Table 3: Route to Become a Teacher in Nicaragua

Level of teaching	Length of initial teacher training	Requirements for entrance and selection procedure	Degree received
Primary or preprimary	Three years in <i>escuelas normales</i> (public or private with public subsidy)	To have completed nine years of basic education (there is high enrollment of in-service teachers)	Teacher of primary
Secondary	Five years in universities	To have completed secondary education (Bachiller Degree) or obtained a Degree of Primary Education Teacher. Admission tests (required scores are the lowest in relation to other higher education programs)	Licenciatura in Education – with mention of specific specialties.
University	At least five years of higher education in which the professor is going to teach (regulated by Law 704)		

Source: MINED. (2012). *Malla curricular de la formación de maestros/as de educación primaria en las escuelas normales*; Law No. 704, published in *La Gaceta, Diario Oficial*, September 12, 2011; General Law of Education, Law No. 582, published in *La Gaceta, Diario Oficial*, August 3, 2006.

Since 2007, the MINED has implemented the Educational Evaluation, Programming and Training Workshops (TEPCE). All teachers and principals in the country meet locally every month to carry out assessment and planning. The workshops, which have a common policy framework and learning targets useful for programming, represent a relevant effort to engage in-service teachers in improving their teaching practices.

Both initial teacher training and teacher professional development receive limited public resources. The amount of the budget allocated to teacher training doesn't reach 2% of MINED's budget¹⁰.

Innovative in-service teacher training programs are also implemented by *Fe y Alegría* and the *Pantaleón* Foundation. They focus on critical knowledge and skills required by teachers, provide follow-up activities and link training to teacher practices in the classroom (Castillo A., 2012; Vijil, 2009).

Initial teacher training in Nicaragua faces major challenges, similar to those found in other Latin American countries (see Terigi, 2010; Vaillant & Rossel, 2006). Among the most important are:

- (a) Low level of education of those entering the teaching profession. Most students of *escuelas normales* come from low-income families, grew in homes with limited cultural capital and have low expectations with regard to being successful in a profession that, in addition, society assigns little social and economic value.
- (b) Students who begin teacher training have major learning gaps in key areas like: reading comprehension, logical thinking, mathematical skills, and methods of processing and organizing information.
- (c) Along with the low academic achievement of candidates who enroll in initial teacher training, programs demand a low number of years for graduation.
- (d) The teacher training curriculum is focused on general, theoretical, contents instead of preparing to develop appropriate skills; teachers complain that there is a need for training in the discipline itself: for instance, in core subjects like reading and math.
- (e) Students of *escuelas normales* experience ineffective school practice insofar as mentoring, supervision and support are poor; during their practicum, teacher candidates are left alone in charge of the classroom while the appointed teacher uses time for other activities not necessarily related with his or her teaching duties.
- (f) There is no regulation of graduate-level teacher training provided by higher education institutions. On the one hand, public universities are autonomous according to Nicaraguan laws; on the other hand, private universities do not receive quality controls¹¹.

10. In 2009, the budget allocation to the MINED was GDP's 3.53% (11.3 % of total government's expenditure). The annual averages of per student investments are US\$197 and US\$118 in primary and secondary education respectively.

11 In the framework of a new recent law (704. September 2011), evaluation and accreditation of higher education is initially developing in Nicaragua.

In reference to continuing teacher training, the Nicaragua's school system faces various challenges:

- (a) In-service teachers complain about the lack of training to manage the new curriculum.
- (b) There are no induction programs ensuring consistent monitoring and support from senior mentors to new teachers who start working in the school system.
- (c) Mechanisms are to be designed for measuring and monitoring the extent to which in-service teacher training has impact on teaching practices in the classroom. Also, there is a need for evaluating the results of teacher training implemented through school networks.
- (d) Since higher education programs have been available to provide a degree to in-service teachers in secondary education, such training and correspondent degree could be provided to primary school teachers as well.

The Case of the Dominican Republic

Since 2008, the Dominican Republic Government is implementing its third Ten-Year Education Plan¹². Current initiatives to improve the education system have the broad framework of the National Strategy for Development 2010-2030 (PREAL/EDUCA, 2010)¹³.

The 1997 General Law of Education established that programs to train new teachers should be placed at the tertiary level of education. Today, initial teacher training is provided by 25 higher education institutions: two are public ones, and the rest are in the private sector. The two public institutions are the *Instituto Superior de Formación Docente Salomé Ureña* (ISFODOSU) and the *Universidad Autónoma de Santo Domingo* (UASD). In 2010, an inter-institutional commission found that there were 89 programs for teacher training. About 42 thousand "students" are enrolled in teacher programs (60% of them at the ISFODOSU and the UASD). Since most "students" are actually in-service teachers, classes are taken at nights and on Saturdays (PREAL/CIEDHUMANO, 2012). As a result of implementing the 1997 General Law of Education, about 85% of in-service teachers currently hold at least a *licenciatura* degree¹⁴. This trend has been stimulated since teachers receive economic incentives as they obtain a higher formal education degree.

However, one of the striking issues in the Dominican Republic is that, despite the investment and advances in training teachers at the tertiary level, children enrolled in primary schools had the lowest scores in SERCE, which examined reading and math skills in 3rd and 6th grades of primary education in Latin America (OREALC/UNESCO, 2008). In addition, it has been reported that 77% of teacher educators in charge of initial teacher training hold at least a master's degree or postgraduate diploma but they provide poor quality of teaching (Castillo, 2011; De Lima, 2010). This situation seems to be an important warning about the fact that formal changes in initial teacher training programs (in terms of length or the kinds of degrees) ensure neither the quality training for new teachers nor future student learning in the school system.

In response to the previous situation, the Dominican Government – through the Ministry of Education (MINERD) and the Ministry of Higher Education, Science and Technology (MESCyT), with the involvement of higher education institutions – has proposed the implementation of significant measures to reform initial teacher training (see MESCyT, 2012): for example, the establishment of rigorous standards to approve and supervise teacher institutions. In addition, a licensing system is to be installed for new teachers to demonstrate their competencies once they have received their higher education degree.

The MESCyT has defined five priorities related to initial teacher training: (a) strengthen programs through hiring full time teacher educators, promoting online teacher networks and implementing standards; (b) upgrade the profile of candidates who wish to enter teacher programs; (c) promote internationalization of teacher training; (d) implement accreditation of teacher training programs, and (e) stimulate teachers' involvement in research within the classroom (PREAL/CIEDHUMANO, 2012). Table 4.

In-service teacher training is provided by the *Instituto Nacional de Formación y Capacitación Docente* (INAFOCAM), which operates with public funds. There are some training programs, however, financed by international organizations¹⁵. A variety of programs are available for about 92 thousand teachers of pre-primary, primary and secondary levels. Existing programs include training supported by Information and Communication Technologies (ICT).

The Dominican Republic faces several challenges in relation to teacher training (see Beca, 2012; PREAL/EDUCA, 2010; PREAL/CIEDHUMANO 2012):

12 The first Ten-Year Education Plan was launched in 1992. It promoted an Education Reform that extensively mobilized key stakeholders in the country. As a result, a new General Law of Education was established in 1997. Among the main policies, strengthening of teacher training was included.

13 For more details about teacher training in the Dominican Republic, see: Beca (2012); Mejía, Castillo, Portorreal & Vincent (2006), and Moreno (2011).

14. A *licenciatura* degree requires at least four years of higher education.

15. World Bank, Inter-American Development Bank (IADB), and Organization of Ibero-American States (OEI).

Table 4

Route to Become a Teacher in the Dominican Republic

Level of teaching	Length of initial teacher training	Requirements for entrance and selection procedure	Degree received
Primary or preprimary	At least four years (eight to ten semesters) of tertiary education in: ISFODOSU, UASD or private universities	Complete secondary education or a professional degree for those applying to <i>Habilitación Docente</i> Admission requires background documentation	Licenciatura or graduate studies in various specialties like Math, Social Sciences, Spanish or Natural Sciences.
University	At least four years of tertiary education (77% of teachers have completed a master's degree or postgraduate studies)		Licenciatura or a higher degree

Source: General Law of Education (1997), Ordenanza 08-2004 on Initial Teacher Training and Law of Higher Education, Science and Technology (2001), and <http://www.isfodosu.edu.do>

- (a) Teacher educators should improve their performance by using relevant teaching models that have impact on both teachers' performance and student learning.
- (b) Although standards for higher education institutions providing initial teacher training have been established, their implementations and compliance have still to be ensured. This is important since there have been past experiences of well-designed educational policies whose implementation has been rather weak.
- (c) Although in-service teacher training is scarcely evaluated, studies available show it has low impact on teacher performance and, hence, on student learning.
- (d) Articulation is needed between both initial and continuing teacher training programs. Future or in-service teachers participating in training program have to receive appropriate follow-up and support.
- (e) Programs provided by higher education institutions need to develop collaborative practices with schools.
- (f) The ongoing teacher training reform requires sustainability.

Analysis and Recommendations on Teacher Training

In the three countries under consideration, neither public authorities nor teacher training institutions seem to have applied strong selection mechanisms to youth who enter initial teacher training. Nonetheless, it seems widely accepted that an element for effective initial teacher training is to attract good quality candidates (Mourshed & others, 2010; Puryear & Ortega, 2011; Schiefelbein & McGinn, 2010; Vegas & others, 2012; Venegas, 2009). Therefore, an obvious recommendation for school systems is to establish mechanisms to attract the best candidates to join the teaching profession. Recent experiences like *Elige Educar* in Chile¹⁶ seem to indicate this is possible (*Elige Educar*, 2012).

But, for good candidates to become good graduates, it is necessary to ensure good initial teacher training¹⁷. As cited above, McGinn & Schiefelbein (2010) found that initial teacher training is linked with teacher training curriculum, teacher educators, and the length of programs.

The trends of countries showing high student learning indicate it is advisable to upgrade the certificate in terms of both the formal education level and the length of the studies. In Guatemala, after years of debate, there is a decision to place initial teacher training at the tertiary level of education. Marshall and Sorto (2012) concluded that "there is some evidence that teachers' access to university courses

16. Inspired in a British experience and the McKinsey's recommendations, this initiative began in 2009 with the purpose of enhancing the value of the teacher in Chile and promoting the attraction of talented and committed persons to the teaching profession. It is a private initiative strengthened by partnerships with the Ministry of Education and higher education institutions (*Elige Educar*, 2012)

17. As teacher training relates to other educational policies, alignment is also relevant. For example, standards are expected to guide curriculum, textbooks, supervision and assessment.

is associated with higher levels of common and specialized content knowledge in mathematics. This supports ongoing efforts in countries like Guatemala to upgrade teacher training levels.” (p. 194) In Nicaragua, public authorities have rather decided to keep and strengthen teacher initial training in the *escuelas normales*, at the secondary level. The Dominican Republic implements its initial teaching training programs already in higher education.

There are initiatives of in-service teacher training in the three countries. At some points, in-service training is actually a way to provide a diploma or degree. Teachers have entered the school system because it had to expand rapidly. However, since there were no teachers with a formal degree, youth with some formal education (for example, 9th grade) had to be hired to fulfill the need of coverage expansion. Then, as observed in Nicaragua, *Escuelas Normales* focus on training and certificating in-service teachers. That has also happened in Guatemala. In the case of the Dominican Republic, in-service teachers are enrolled in higher education to complete a *licenciatura* degree.

Besides public initiatives (which have little budget allocations, especially in Guatemala and Nicaragua) there are private initiatives. An important part of public teacher training programs tend to support curriculum reform taking place

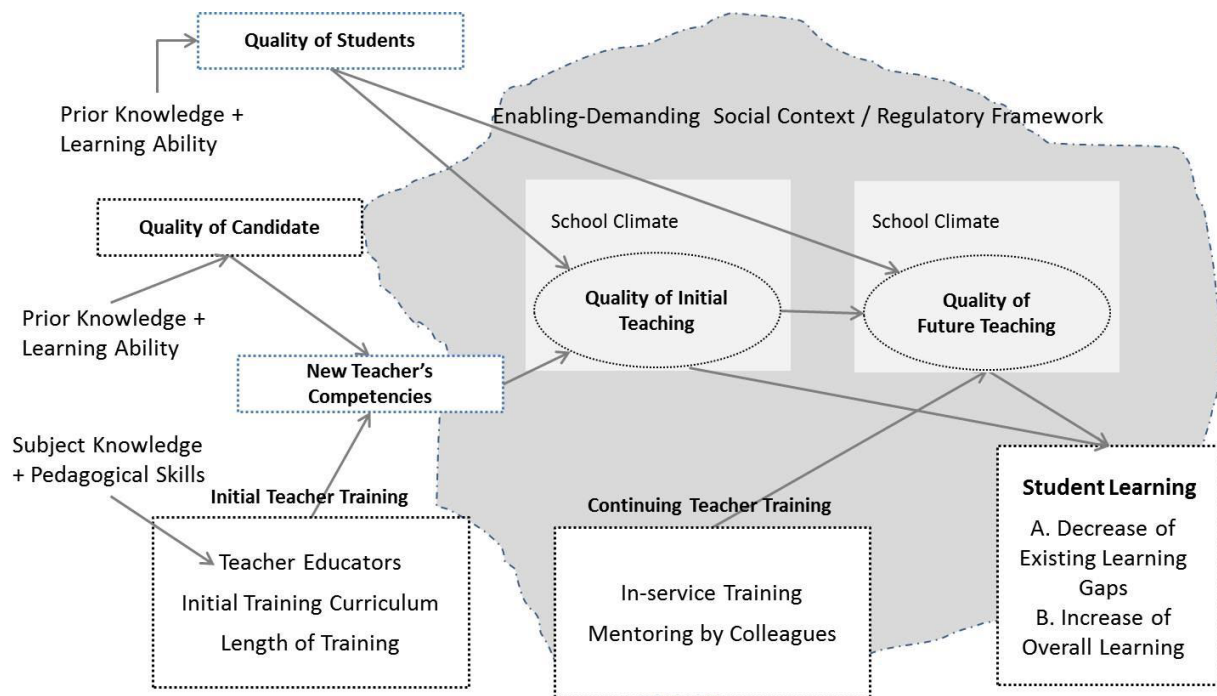
in the school system or to provide opportunities for teacher formal degree. The private initiatives, on the other hand, depend on priorities and resources of donors, some of which are international or local. They tend to be

focused on specific issues. In Nicaragua, the initiatives of *Fe y Alegría* and the *Pantaleón* Foundation seem to be examples of successful interventions for teacher training. Guatemala has designed a teacher professional development (PADEP/D), which represents an opportunity to institutionalize in-service teacher training.

According to McGinn and Schiefelbing (2010), in-service training and mentoring of colleagues are key variables relating to future teacher competencies, which may have impact on student learning. In principle, the better the teacher training and mentoring of colleagues, the better the future teacher competencies and the more likely student learning outcomes will improve.

A main target of teacher training (both initial and continuing) is to enhance student learning. The SERCE study (OREALC/UNESCO, 2008) identified two key variables related to students enrolled in primary education in LAC: school climate and school’s socio-economic level. It can be expected that teacher’s performance has a two-way relationship with school

Figure 1: Approaching the impact of teacher training policies on school effectiveness and student learning.



Source: Adapted from McGinn and Schiefelbein (2010) and SERCE (OREALC/UNESCO, 2008)

climate. On the one, effective teacher's performance benefits school climate. On the other hand, a good school climate supports and requires effective teacher's performance.

It is advisable that appropriate teacher training policies (at the country level, for instance) produce synergies with school climate (at the local level). This link between teacher training policies and school climate reinforces Michael Fullan's idea about the three stories of education reform. Education reform becomes powerful when there is a synergy between three stories that reflect relationships of the school with its environment: the inside story, the inside-out story, and the outside-in story. As it was stated before, teacher training policies are part of the outside-in story. School climate would refer to the inside story. The extent to which a group of teachers (and their principal) link with training opportunities would lead to the inside-out story. As Fullan (2000) states, the goal would be that all stories reinforce each other to enhance education reform.

An emerging issue is the importance of designing and implementing strategies to support new teachers entering the profession. Explicit guidance, mentoring and advisement are valuable when they start their careers. In this sense, it would be desirable to study successful experiences developed by private schools. International experience, particularly the case of Singapore, shows the importance of this aspect for improving the quality of teaching (Goodwin, A. L., 2012).

Based on the previous analysis, we would recommend that further research, policy development and practice could be approached by using the scheme of the figure below.

The figure 1 above contains key variables identified by McGinn and Schiefelbein (2010), and it also includes aspects underscored by the SERCE study (OREALC/SERCE, 2008): school climate and the school's socioeconomic level. In regards to the first aspect, the role of principals, parents and the regulatory framework are to be considered. The latter one is also a key to establish standards to control performance or stimulate accountability of institutions (public or private) involved in pre- and in-service teacher training.

In regards to the second aspect, taking into consideration de levels of inequity (which occurs in the three countries considered in this paper, and other countries in LAC as well), teachers have the challenge to ensure learning in classroom with heterogeneous children. Competent and motivated teachers would be in a better position to reduce learning gaps between students and increase overall student learning outcome.

The recent UNESCO study on teachers in LAC (OREALC/UNESCO, 2012) provides some specific criteria to review teacher policies for both pre-service and in-service teacher training: teacher training programs should become relevant to school and classroom needs, they should provide knowledge and skills

to teachers for them to deal with heterogeneous students in the same classroom, and they should be regulated in order to avoid too much quality variability between institutions offering a variety of programs. Teacher training policies will be enriched by knowledge, informed dialogue (see Reimers & McGinn, 1998) and investment.

The criteria proposed by the OREALC/UNESCO (2012) need to be contextualized to specific country conditions and priorities. For example, the critical issue about regulating the quality of institutions would represent a major challenge in countries like Guatemala where the number of teacher training institutions is very high. Another example is that preparing teachers

for diverse environments becomes highly challenging when considering that school systems have to serve diverse ethnic populations rooted in the Mayan culture, in the case of Guatemala, and the Caribbean coast, in the case of Nicaragua.

A last consideration is whether teacher training can be strong enough to enhance teacher's competencies under adverse conditions. It can be argued teachers intellectual skills do not operate alone. They combine with teacher commitment (or motivation). Teacher's performance may be influenced by many variables, of which training received is one of them. It can be acknowledged that teachers can be effective even under adverse conditions (see McGinn & Schiefelbein). This has been illustrated by studies that analyze high learning scores obtained by children coming from low income families. There are not too many studies available in Central America to relate teacher practice and student achievement in vulnerable contexts. However, a recent study in Guatemala found that "variables like the number of school days, teacher content knowledge and pedagogical methods are robust predictors of achievement" (Marshall, 2009, p. 207). In El Salvador, a neighboring country, an analysis of learning outcomes in primary schools found that leadership of principals and the collaborative effort teachers and families may enhance learning for children in communities living in a variety of contexts (Briones, Ramos, Barillas, Orellana & Márquez, 2005). More of these analyses would be helpful since they would provide guidance to find ways by which children living under vulnerability enhance their learning.

Closing remarks

In Guatemala, Nicaragua and the Dominican Republic, teacher training is not effective enough to ensure high learning outcomes of children enrolled in primary schools. At best, there are innovative efforts, some genuine intentions at times, and acceptable results in part of the school system. However, a systemic approach of teacher policies should allow for a sustainable reduction of children learning gaps and an increase of overall learning. Learning is facilitated by

competent and motivated teachers. A key element to improve teacher competencies is both initial and continuing training. However the quality of the candidates matter; thus, selection mechanisms need to be “part of the equation”.

A major challenge is to institutionalize teacher training policies to foment sustainability. National stakeholders should creatively and responsibly solve conflicts and face needs to try to keep moving forward. An advantage today could be certain accumulation of ideas and experiences available in the global context. Although further research and policy analysis should be done, it seems there is useful knowledge (see Anderson, 2004), information and practices to guide future agenda aimed at improving teacher training in national contexts and internationally. It would be relevant to consider a recent advice stated by McGinn and Schiefelbein (2010):

We propose that UNESCO sponsor an international project to capture and synthesize existing knowledge about teaching practices and teacher training. The target audience for the results of the project would be ministries of education and teacher training institutions in developing countries. The project would supply them with specific recommendations on the content and process of teacher training, appropriate for the conditions and values of the country in question (p. 12).

There are other national and international¹⁸ initiatives already making efforts and building resources relevant for teacher education in Central America and the Dominican Republic. Sound (PREAL): <http://www.preal.org>; Inter-American Teacher Education Network (ITEN/OAS): <http://www.oas.org/en/iten/default.asp>; The International Task Force on Teacher Education for All: <http://www.teachersforefa.unesco.org/int/en>

knowledge, information and practices would be an input to local entities: ministries of education, teacher training institution, teacher organizations and private foundations. Although, various interests and conflicts could arise in the process of promoting teacher education improvement, they could also represent an opportunity for building shared goals and complementary actions.

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A. Percentage of Trained Teachers in Central America and the Dominican Republic.

	Year	Pre-primary (%)	Primary (%)	Lower Secondary (%)	Upper Secondary (%)
Costa Rica	2004	91	97	...	...
	2008	77	86	83	83
Republic Dominicana	2004	77	...	64	79
	2008	78	89	89	83
El Salvador	2004	92	96	94	83
	2008	88	93	90	83
Guatemala	2004	...	...	...	...
	2008	...	...	...	...
Honduras	2004	64	87	65	62
	2008	...	36	...	62
Nicaragua	2004	22	75	42	54
	2008	33	73	57	62
Panamá	2004	49	74	82	85
	2008	42	91	90	92

Note 1. Trained Teachers are those who have received a minimum of organized training (pre-service or in-service) usually required to teach at the correspondent education level.

Source: UNESCO Institute of Statistics. Online database (retrieved on June 26, 2011)



B. Percentage of students in primary education with low learning (level I or less) by zone in SERCE 2008 in Central America and the Dominican Republic.

	Math Grade 3		Math Grade 6		Math Grade 3	Math Grade 6
	Urban	Rural	Urban	Rural	Difference	Difference
Costa Rica	20	37	3	6	17	3
El Salvador	44	64	14	28	20	14
Guatemala	53	74	19	34	21	15
Nicaragua	61	59	24	29	-2	5
Panamá	61	70	23	39	9	17
R. Dominicana	88	94	45	51	5	6
	Lectura 3		Lectura 6		Lectura 3	Lectura 6
	Urban	Rural	Urban	Rural	Difference	Difference
Costa Rica	8	17	4	7	9	4
El Salvador	21	45	14	31	24	17
Guatemala	35	67	22	45	31	22
Nicaragua	36	50	20	27	15	7
Panamá	34	62	19	44	28	26
R. Dominicana	75	83	47	62	8	15

Note 1. The following countries also participated in SERCE 2008: Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Estado de Nuevo León, Paraguay, and Uruguay.

Note 2. The performance levels varied from I to IV (from worst to best performance). This table sums the number of students in level I or less. Besides, the difference between rural and urban zones is shown: the higher the difference the greater the disadvantages of learning for children in rural zones

Source: SERCE (OREALC/UNESCO, 2008)

