Teacher Recruitment & Preparation in Nicaragua: Policy Options and Implications for Reform

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Can Reforming Teacher Recruitment & Preparation improve Teacher Effectiveness?
Teacher recruitment, education and preparation has been an integral part of international education policy reform for decades (Fuller, 1985; Ingersoll, 2007, UNESCO 2008; Ban Ki Moon, 2012). As more countries improve access to education and more students are enrolled in schools throughout the world, there is an ever increasing need for prepared professionals to teach them (UNESCO, 2011). National governments and international agencies are increasingly recognizing the vital importance of a well prepared teacher in every classroom (Ban Ki Moon, 2012). It is argued that developing effective teachers “is the central challenge facing countries across the globe as they seek to develop first-class education systems” (Stewart, 2012 p 97)

While the international community has been discussing the need for improved teacher recruitment and preparation there is a rigorous debate over the best policies with which to do so. Many contend that teacher preparation is the critical educational policy debate although highly complex including questions of recruitment, length of training, incentives, and curriculum (Avalos, 1980; Fuller 1985; Ingersoll, 2007). Experts stipulate that teacher preparation through teachers colleges and university systems do not maintain the same level of rigor as other professions such as medicine and law (Darling-Hammond, 2005). This view posits that raising standards, increasing accreditation, and establishing more robust curriculum within teacher preparation bodies will increase teacher effectiveness in the classroom (Darling-Hammond, 2005).

While opponents argues that evidence is inconclusive (Hanushek & Rivkin, 2004). according to a research study by teacher quality expert Linda Darling-Hammond (2005) teacher effectiveness as measured by student test scores is strongly related to the preparation the teachers have received. In other words, student learning outcomes are greatly impacted by the
effectiveness of their teachers and as a result the most well prepared teachers tend to have better learning outcomes (Darling-Hammond, 2005).

Furthermore, teachers and their subsequent salaries tend to be the largest expenditure for an education system (Avalos, 1980; Hernani-Limarino, 2005 Hanushek, ). As the largest input into an education system, policy makers merit the importance of investing in improving teacher effectiveness as both a initiative of economic importance as well as a crucial educational reform measure.

In this paper I will first explore the educational context of Nicaragua and provide evidence of a shortage of well prepared teachers. Then I will offer potential reasons for poor teacher preparation and it effects as an important part of the education policy debate. Next, I will review the policies of other countries that have sought to improve their teachers preparedness. I will review these policy alternatives using economic, political and implementation criteria to evaluate their potential for contextualized transfer. Finally, based on a review of the available potential teacher recruitment and preparation programs, I will make a policy recommendation for the Nicaraguan Ministry of Education.

**Context of Nicaragua’s Education System**

Nicaragua’s education system is riddled with difficulties. With the largest youth bulge in Latin America, numbering as many as 2.2 million school aged children (UNESCO, 2011) Nicaragua’s public school system is confronted with the tremendous task of educating its young people. Nicaragua also faces enormous economic challenges as the second poorest country in the Western Hemisphere with 48 percent of the population living on less that two dollars a day (UNESCO, 2011). The current government allocates six percent of its budget towards
educational spending which amounts to approximately $330 per pupil (Gillies, 2010).

Nicaragua’s per pupil spending in education is relatively low, but their percentage of budget allocation is comparable and even higher than other countries in the region (Gershberg, 1999). In a recent article Carlos Tünnermann, former minister of education and former member UNESCO Director-General’s Advisory Group for Higher Education in Latin America argues that while the government boasts increases in educational spending it does not take into count the increased numbers of students within the system (Nicaragua Dispatch, 2012). While it may appear by the percentages that Nicaragua’s spending is sufficient, schools still wrestle with the realities of severe lack of resources. Tünnermann argues that “Nicaragua is way behind. And next year there will be even less spending for teacher education.” (Nicaragua Dispatch, 2012 p.1)

Additionally, education reform has been widely politicized within Nicaragua (Gillies, 2010). The education system has seen drastic changes with transitions of new governments in the 1980’s and most recent elections. For example Nicaragua’s latest autonomous school reform decentralized schools with the intention of creating a system where local administrators, teachers and parents have more authority in the governance of the school (King & B. Ozler, 2001). However, the new education minister de Castilla has effectively reversed the autonomous school governance reform in Nicaragua giving the locus of authority and decision-making power back to the centralized Ministry of Education (Gillies, 2010).

Regardless of political affiliation, school reform policies that have sought to improve educational quality are still lacking. Indicators demonstrate Nicaragua significantly behind its Latin America neighbors (UNESCO, 2011; Gillies 2010). For example, Nicaragua is the only country in Latin America ranked low, standing at 100 out of 127 countries internationally, for its Education for All Development Index (UNESCO, 2011). The survival rate of grade to grade 5 is
only 51 percent indicating that almost half of students entering primary school do not complete the transition to secondary school (UNESCO, 2011). Moreover, less than 30 percent of students entering secondary school graduate (Vegas, 2005). Even those who do complete graduation may not be learning basic skills as evidenced in the 43 percent of youth males and 38 percent of youth females predicted to be illiterate (UNESCO, 2011). Schools are over-crowded and underfunded. There is poor infrastructure and many teachers lack even basic materials to conduct lessons (Di Gropello, 2005).

While poverty and politics pose significant barriers, Nicaragua has been successful in implementing reforms to increase basic access to education and boasts a high gross enrollment ratio of 118 percent (UNESCO, 2011). Perhaps as a result of international pressure and donor aid channeled through the Millennium Development Goals and Education For All Initiative more school aged children are attending school than ever before (Gillies, 2010). Therefore it serves to reason that Nicaragua’s current challenge is not increasing access but establishing and maintaining a level of educational quality to meet the demand of students entering schools. While many factors contribute to low educational quality I propose that the greatest obstacle is the lack of prepared teachers within the schools themselves.

Too few teachers in Nicaragua are adequately prepared

Nicaragua currently has a substantial number of teachers with approximately 55,000 primary and secondary school teachers within its public school system (Chesterfield, R., & Abreu-Combs, A., 2011). However, according to a World Bank report, Nicaragua has the lowest percentage (74.9 percent) of qualified teachers within Latin America. (Di Gropello, 2005). Qualifications were defined in the report as any teacher who had completed secondary school,
normal school, or a university education. Such a definition for qualification even inflates the percentage of teachers who are deemed qualified for the classroom since many of those never received preparation for teaching. Visser-Valfrey (2010) reports that as much as 27 percent of teachers in Nicaragua have received no preparation before entering the classroom. The report further suggests that “the percentage of untrained teachers has increased over the past years, reflecting a focus on growing recruitment and difficulties in ensuring that teacher training keeps pace with this development.” (Visser-Valfrey et al, 2010 p. 6)

Currently 18 percent of teachers in Nicaragua have only a primary education, most of them serving in rural settings (Di Gropello, 2005). With little incentive to further their education, as few as 14 percent of teachers in Nicaragua have the equivalent of a university diploma (Di Gropello, 2005). In contrast, most education systems throughout the world mandate the minimum preparation requirement as a university degree (Navaro, 2005). The compounding problem is that even with increased standards within the normal schools or university, there are still too few candidates entering to become teachers. This may be due to lack of prestige of the teacher profession amongst the Nicaraguan community deterring qualified students from pursuing education as a career (Villegas-Reimers, 1998). The limited incentives to enter the teaching profession may serve as a large deterrent.

Comparable to other professions the base salary of a teacher is less that a living wage and many teachers take second jobs to support themselves (Hernani-Limarino, 2005). Part of the incentive to teachers in the autonomous school reform was the promise of potential salary increases as a result of imposed school fees that would help contribute the base salary (Hernani-Limarino, W. (2005). However, in a study of the reform Gershberg (1999) reports that these salary increases have not materialized. Teachers in Nicaragua still have the lowest salary base in
all of Central America (Nicaragua Dispatch, 2012). As result of few incentives the recruitment of talented students is lacking and subsequently needs to be addressed (Villegas Reimers, 2003).

Teacher recruitment and preparation is an important economic concern for Ministries of Education like Nicaragua that face immense budget constraints. Attrition of teachers is increasingly cost intensive. Research has confirmed that high rates of attrition from teaching are often a function of inadequate preparation and support in the early years (Darling-Hammond, 2005). And Rust and Dalin (1990) confirm that

“evidence is overwhelming that socioeconomic conditions place enormous constraints on the ability of ministries of education to provide resources and means to insure that qualified and talented teachers are teaching in the schools” (Rust & Dalin, 1990, p 309)

Current process of teacher preparation in Nicaragua

Like most countries, Nicaragua does not limit candidates’ entry into teacher preparation programs in large part due to the ever increasing demand for teachers in the classroom (Stewart, 2012). However, in a study of Latin American teacher quality Villegas-Reimers (2003) emphatically states that the candidates who enter normal schools are easily the worst of all the students. In contrast, high performing systems like Singapore have a more selective enrollment process for teaching professionals (Stewart, 2012). Nicaragua’s current social and economic condition may not afford it the license to be as highly selective of teacher candidates.

Currently, Nicaragua National Law No. 114 Article 17 mandates that all teachers entering
the profession are required to have a certification of completing normal school (Nicaragua, 1990). The Escuela Normal de Preceptores or Normal Schools have been the principal means of teacher education in Latin America for over a century but as studies have shown in most countries of Latin America they were replaced and are being replaced by teacher education moving to the university (Avalos, 2000). The normal school model selects students from primary school to be trained as teachers. In its inception normal schools presumed that the most qualified primary school students would be selected for participation. However this has not been proven in theory or in practice (Avalos 2000). By law, the state guarantees a teaching position to all normal school graduates (Nicaragua, 1990). However current data indicates only 26 percent of Nicaraguan teachers attended and graduated from normal schools (Di Gropello, 2005). If there are not enough normal school graduates the only legal requirement to teach is a primary school education (Nicaraguan Law, 1990). This law may be in place due to the lack of incentives for teachers in rural areas. As in other developing countries Nicaragua has a difficult time placing teachers in remote areas (Vegas, 2005).

According to the UNESCO report (2011) in 2001, the Nicaraguan Ministry of Education sought to improve the standards of teacher preparation with a focus on constructivist curriculum and transitioned the emphasis from didactic learning to practicum classroom based pedagogy. As a result, the Nicaraguan Education Law of 2006 maintains that teacher preparation will include a integrated perspective that combines academic knowledge and pedagogical practice (UNESCO, 2011). Currently most teacher preparation takes place in normal schools which are three years in length and include a two year component of academic study and a year long teaching practicum with partner schools within the Ministry of Education (UNESCO, 2011). Teachers within the Nicaraguan normal schools must obtain approximately 4500 hours of academic study of which
1,000 hours are classroom based practicum experience (UNESCO, 2011). The cooperating schools are chosen by the Ministry of Education, but oversight of the practice is highly decentralized and each cooperating school has authority and accountability of the teachers who are serving in the classroom (UNESCO, 2011).

Again the problem is such that many of the teachers who are serving in the public school system have never been prepared to teach. Nicaragua has implemented reforms to their normal schools to include a more robust pedagogical experience (UNESCO, 2011). While improving the normal schools may lead to a few more prepared teachers, there is a still shortage of teachers who are entering into the normal schools for such preparation. However the Ministry of Education can still take important steps to recruit better talent and prepare candidates effectively.

Criteria for evaluating proposed policy alternatives: What implementations have been successful to improve teacher preparation in other contexts?

Internationally, reforms to improve teacher recruitment and preparation are as numerous and varied as the countries implementing them. For example, in his report analyzing policy options among developing countries Zafeirakou (2007) highlights six common strategies for addressing teacher shortages through recruitment and preparation programs. Moreover, Beatriz Avalos (2000) highlights several trends among Latin American countries within the past few decades and Juan Carlos Navaro (2005) also reviews eight initiatives throughout the developing world.

Among these reforms, I will review three of the policy trends that are being implemented within other contexts and that could considerably impact the problem facing Nicaragua’s teacher population. They include reforming current teacher preparation programs, recruiting teachers
through alternative methods, and implementing teacher professional development (Zafeirakou, 2007). I will analyze their feasibility to improve teacher recruitment and preparation based on three criteria: economic, political, and practical application (Bardach, 2005). The first consideration is the economic implications of the policy’s implementation. With the given constraints of Nicaragua’s budget, any policy reform must be financially viable and demonstrate a significant gain given the assumption of a rudimentary cost benefit analysis.

As stated previously, education is highly politicized in Nicaragua and in order to implement a unified reformation of teacher recruitment and preparation political will of a certain critical mass is necessary. The new education minister has effectively inverted the autonomous school governance reform in Nicaragua (USAID, 2012) putting more authority and decision-making power to the Ministry of Education suggesting that political will for any reforms will likely be implemented from ministerial mandate. In a summary report of the decentralization reform, Gershberg (1999) concludes that the reform was successful in part because it was not passed through legislation first, but through ministerial directives. This insight implies that teacher recruitment and preparation reform measures might be more feasible as an arm of the Ministry of Education rather than through the legal mandate. Gershberg (1999) contends that beginning the reform and giving it an opportunity to succeed (or fail) provides a better chance of its approval with the legislative body.

There may be economic justifications and the theories of change with which these reforms occur may succeed in Nicaragua’s political landscape, but the policy also needs be obtainable in practical application and implementations. Given that systematic infrastructure isn’t robust and Nicaragua has a poor culture of monitoring and evaluation (DiGropello, 2005) feasibility of implementation is important. Nicaragua only reports periodic statistics making it difficult to see
longitudinal trends (Di Gropellos, 2005) however there are still the successes of the decentralization reform that could serve as a benchmark of implementation feasibility. In the following sections, I will focus on analyzing strategies countries and programs that have been used to attract teachers to the profession and to best prepare those candidates whether in or outside of traditional teacher education programs.

Reform Teacher Education Programs to Better Recruit and Prepare Teachers

Many countries are seeking to improve teacher preparation through reforms of educational institutions. In several developing countries teacher preparation programs have simply been lengthened (Villagas-Reimers, 1998). However Villegas-Reimers (2003) notes that the greater need is restructuring the current teacher preparation system rather than lengthening an ineffective one. Throughout Latin America, Ministries of Education are raising the standard for teacher preparation by reforming traditional normal schools, increasing the requirements to university level degrees and seeking accreditation of the schools of education (Avalos, 2000; Navaro, 2000; Villegas-Reimers, 2003). The rationale behind these policies is that more robust standards in teacher preparation result in higher student outcomes (Darling-Hammond, 1999).

However, Nicaragua is one of only four countries in Latin America which still prepares teachers in the secondary level (Avalos, 2000) where the trend has been to increase the level of teacher preparation by raising the mode of delivery from a secondary school setting to a tertiary school setting or university (Avalos, 2000) While Avalos (2000) argues that changing teacher education in Latin America is often riddled with bureaucratic constraints several reforms have succeeded reforming teacher education programs which implies that similar programs could be implemented within the Nicaraguan context. Juan Carlos Navarro (2000) analyzes these trends in
improving teacher education in citing eight cases within Latin America. These programs seek to raise the level of preparation of teachers who attend normal schools through raising the standards by which they enter the profession. While these programs and countries have yet to achieve a comprehensive model of quality education or the precise exemplar in education systems, they do provide a foundation with which Nicaragua teacher preparation policy reform could build upon.

Bolivia is an example of a country converting their Normal Schools into Higher Normal Schools, thereby increasing the standards of admission and reforming curriculum. Bolivia has also established a *Pedagogical Baccalaureate Programme* for uncertified teachers to receive proper training and improved qualifications (Avalos, 2000). Uruguay has recently instituted the program *Centros Regionales de Profesores* (CERPs) a type of boarding school for teachers to be trained in 2 years to replace their traditional normal schools (Navarro, 2000). Navarro (2000) commends Uruguay’s program that combined financial and social incentives to recruit talented applicants and combat the waning interest in the teaching profession. A similar program known as *Microcentros* which covers all of the rural schools in Chile has been implemented with great success in both achieving higher teacher qualifications and improved student achievement scores (Navaro, 2000).

Other notable programs seek to improve the preparation of the teachers through improving the pedagogical knowledge training in current schools of education. A prominent classroom based teacher training program in Venezuelan Catholic school system entitled *Fe y Alegría* is lauded for its constructivist practices (Navaro, 2000). A similar program in Mexico *ESTIPAC* places student teachers in classrooms as early as their first semester in normal school (Navaro, 2000). While these policies do not provide a necessary policy model to replicate, they offer substantial qualitative evidence of the importance of raising the standards of teacher
preparation. All of these reforms help provide evidence of the growing trend in Latin America of improvement and standardization of teacher preparation systems, an important trend of which Nicaragua lags behind.

Establishing Standards to Better Prepare Teachers: Accreditation

Avalos, (2000) argues that there is “institutional inertia” when seeking to reform normal schools including the unwillingness of governments, universities, schools and even teachers to change. It is not feasible given current budget and legislative constraints that Nicaragua will move the standard teacher preparation from normal schools to solely the University setting. However, Nicaragua could still standardize the preparation requirements by creating a policy that requires schools that prepare teachers to receive accreditation.

Avalos (2000) asserts that as equally important as the implementations of improved teacher preparation programs in Latin America is also establishing a high standard of monitoring and evaluation. Currently, Nicaragua has a inadequate culture of creating systems to ascertain levels of attainment of both teachers and schools (DiGropello, 2005).

Avalos (2000) maintains that the method of establishing a strong base of prepared professionals is to establish systems of accreditation and to encourage coordinating teacher education institution networks. Avalos (2000) cites several Latin American countries that are successfully implementing such a reform with positive effects on teacher preparedness. While Nicaragua has made progress to improve the norms by which teachers can be certified to become
teachers, the standards to becoming a teacher are not codified. Standardization of the teacher qualifications need be a requisite to codify teacher requirement. For example, Brazil passed legislation in 1994 that all teacher preparation programs must be accredited through either the National Council of Education or the Ministry of Education. (Avalos, 2000) While Brazil’s education system still has significant steps to take towards improvement, this measure has lead to a higher standard of teacher preparation for those candidates attending Higher Normal Schools and University teacher preparation programs (Avalos, 2000). Similarly Argentina has also established a system of accreditation by a Federal Teacher Education Network to make sure that levels of preparation are somewhat standardized (Avalos, 2000).

Following the example of other policy reforms Nicaragua’s system of accreditation would establish standards of teacher to both elevate the profession and ensure better preparedness. However, this can not be the only policy reform implemented to address the shortage of well prepared teacher in Nicaragua. In fact only improving pre-service preparation of teachers through accreditation may not be sufficient to meet the demands for more prepared teachers. In an review of studies throughout the developing world including countries in various context such as Uruguay, India, Mawali, Jordan Thailand, Beatriz Avalos (1980) reports that the level of preparations of a teacher, university graduates versus non-graduates, has inconclusive evidence to produce higher student achievement. In a later study Avalos (2005) extends the argument that there is inconsistent and inconclusive evidence that any of the reforms are actually improving classroom practices and resulting in better students learning. Therefore, accreditation of normal schools needs to be accompanied by other measures to recruit and prepare teachers.

*Recruitment Alternatives to Improve Incentives for Teacher Candidates*
In order to better recruit teachers in Nicaragua, there needs to be financial incentives for them to enter the profession. In a comparative study of six nations and their teacher preparation systems, Ingersoll (2007) concludes that without increasing teacher compensation other measures are likely to fall short of the goal of attracting talented professionals into the field. Other studies concur that only improving teacher education systems will not lead to more prepared teachers since there are still too few incentives for new candidates to enter the teaching profession (Santibáñez et al, 2007). Two potential recruitment strategies that could serve Nicaragua are hiring contract teachers and implementing a scholarship program for teacher candidates.

An increasingly popular policy option in much of Sub-Saharan Africa is the employment of contract teachers to fill the shortage of teachers citing economic reasons as well as implementation feasibility (Duthilleul, 2005). Contract teachers are less costly to hire, they are more likely to be hired within the local community wherein which the need resides. Furthermore, proponents argue that since they are locally hired community members there is a higher likelihood of accountability (Duthilleul, 2005). In support of similar initiatives, a report by the Southeast Center for Teacher Quality has shown that developing local talent is a crucial to the serving under-served populations (Berry, 2004). Nicaragua’s Autonomous School Reform did in fact include the implementation of contract teachers to serve in the decentralized schools. Teachers were hired from local school officials and received initial training (Gershberg, 1999). Additionally, while it is difficult to empirically measure since the initial quality of education is reported as significantly low, some reports indicate that the introduction of contract teachers did not reduce the quality of education, in that student test scores did not diminish (Duthilleul, 2004).

However, contract teachers still receive little to no preparation and do not present a long
term solution to the limitations of teacher preparation within Nicaragua. Critics of contract teachers argue that it reduces the professionalization of teaching and demoralizes the current teachers who have gone through further teacher preparation in order to enable themselves to become educators (Darling-Hammond, 2005). Within the contract teacher policy, there must be an sustainable, well delivered, purposeful means of preparing them. Yael Duthilleul (UNESCO, 2005) contends that Nicaragua’s changes in teachers’ contracts maintained the teachers current status and salary. Maintenance of the status quo is not the best policy reform for Nicaragua’s teachers. Furthermore, the introduction of contract teachers also may not be as cost effective as there are hidden cost of monitoring, simplification of curriculum and the measures of accountability at the school level that must be considered (Duthilleul, 2005). While proponents of this policy posit that it attracts talent into the profession there is incredible criticism that contract teachers undermine the much needed belief of teaching as a profession (Darling-Hammond, 2005).

However, a shortage of highly prepared teachers is not only a problem in developing countries. Initiatives in several states in the United States have sought to entice highly talented candidates into the teaching profession by offering financial incentives for college completion (Berry, 2004). For example, in the United States, Berry (2004) highlights that ineffective teacher certification programs are in fact the barrier to teacher recruitment and the potential solution is “short cut alternative certification programs that lower the opportunity costs of entering the teacher profession (Berry, 2004 p 8). For example, 27 states offer scholarships for college applicants who intend to enroll in teacher preparation programs. A prominent example is the North Carolina Teaching Fellows Program which offers a complete scholarship to state funded university in exchange for four years of teaching within the state’s public school system. The
scholarship can be forgiven after only three years if the teachers work in a harder to staff community (Berry, 2004). This serves as an additional incentive for candidates to enter the program (Berry, 2004) and concurrently helps to staff teachers in districts that tend to be underserved with well prepared teachers.

This program also seeks to ensure that the best candidates are chosen for selection (Henry, Bastian & Smith, 2012). In their policy report on the effectiveness of the Teaching Fellows program, researchers found statistically significant differences between student achievement of the teaching fellows versus traditional degree programs (Henry, Bastian & Smith, 2012). Teachers of the fellowship program were also more likely to stay in the teaching profession longer than others. In her report on teacher education in Latin America, Beatriz Avalos (2000) contends that scholarship programs for potential teacher candidates is a policy lever that should be more fully investigated. While Nicaragua’s budget for education is already at maximum levels, it is likely that economic support for such scholarships could be found within the given structure. Furthermore, international development aid could be used to off-set the costs with a potentially high rate of return in economic and societal gains. Furthermore a scholarship program could likely be politically attractive as parties could assert their influence.

**In Service Professional Development Reform; Professional Development Policy Reform**

Since the majority of Nicaraguan teachers have not been through formal teacher education preparation (DiGropello, 2005) it is imperative that they have opportunities to engage in continual professional development. Through her review Avalos (2000) shows significant qualitative information to indicate that the reformation of current teacher education programs is a long-term investment in teacher preparation. However, Alvalos (2000) also indicates that school-
based teacher professional development appears more effective for changing teacher’s behavior and is a more cost effective reform. The goal of on-going or in-service teacher preparation, or what is commonly referred to as professional development, is to change or improve teachers’ behavior in the classroom to promote better student outcomes (Darling-Hammond, 2007). Professional development provides the ability to learn new pedagogical approaches and curricula goals.

However, there is limited quantitative research on the number of professional development opportunities available to Nicaraguan educators and this should be further researched to determine both quantity of programming available and the quality therein. Vegas (2010) concludes that the decentralization reform had the potential to provide quality professional development as schools were given more authority over their own operations, however she found no studies to date that this potential was being utilized. Additionally King and Ozer (2001) report that the autonomous school reform actually left teachers feeling less empowered as agents of action within their schools. Greshberg (1999) notes that the Ministry of Education “maintains control of pedagogy and teacher training” (p30)

However investments in teacher in-service preparation and professional development have been widely supported by international agencies such as the WorldBank, USAID and Inter-American Development Bank (Gillies, 2011). This support may be attributed to the fact that teachers in pre-service preparation programs, such as the normal schools and university programs, are not being adequately prepared at the outset. Rather than contributing to the belief that teachers are professionals that need continuous education, the aid may serve to underscore the idea that teachers are within a failing system that needs outside corrective measures (Avalos, 2005).
For example as a result of joining the Fast Track Initiative (FTI) a measure to improve Nicaragua’s Education for All Index, Nicaraguan teachers were given the opportunity to attend the Center for Excellence in Teacher Training (CETT) (Chesterfield & Abreu-Combs, 2011) a teacher training center established by USAID. Statistical analysis on the effects of the teachers participation in the training concluded that it had a “positive impact on teaching practice in the classroom” (Chesterfield, R., & Abreu-Combs, A., p vi). The study also reported gains in students test scores in both reading Spanish and math (Chesterfield, R., & Abreu-Combs, A., 2011). While this evidence is positive for impacting teacher preparation in Nicaragua, the report also indicates that less than 65 teachers received this training and even with increased support from international organizations the report concludes “insufficient attention” to and the increasing need for professional development for Nicaragua’s teachers. (Chesterfield, R., & Abreu-Combs, A., 2011) Given the attention from donor agencies and the willingness of teacher participants, and the positive effect on student outcomes, professional development as a means of preparing teachers is a economic, political and operationally feasible policy option for Nicaragua.

In Colombia the Program for Continuing Education of Teachers is a policy that sought to address the issues of poor teacher preparation among the thousands of teachers already placed in service in the classroom (Avalos, 2005). Teachers are required to attend training for a year in order to receive points of completion. These programs are offered both through “qualified” public and private entities and seek to ensure that teachers are receiving on-going development to address their potential lack of initial preparation (Avalos, 2005). While Avalos (2005) contends that the point system is not deterrent to teacher motivation, there is little known about the process for these programs to be deemed “qualified” for content and curriculum and it is likely that the
quality of the programs may differ between the various entities. Furthermore within Nicaragua’s lack of systematic reporting and evaluation it is highly unlikely that implementation of a point system would be feasible.

Romania may offer a potential model for improving on-going teacher professional development as a policy reform to address the current needs of teachers. In 2003, Romania instituted a national policy entitled School Based Teacher Professional Development wherein schools analyzed their teacher preparation needs and direct school based professional development with the support of mentors for each of the localities (Zafeirakou, 2007). The mentors worked within the school systems to identify the needs of the teachers and support the staff in organizing the appropriate training (Zafeirakou, 2007). This training showed to improve teacher morale and qualitative reports indicate change in teacher pedagogy (Zafeirakou, 2007). This policy was implemented by the national government with little economic costs and support by political parties (Zafeirakou, 2007). Nicaragua’s current school structure provides a sustainable platform to pilot this type of reform.

**Policy Implications for Nicaragua: “Attract, Prepare, and Support”**

Nicaraguan teacher education reform may be borrowed purposefully from other contexts in such a way as to improve the system of teacher preparation and ultimately the learning outcomes of students. Reducing the shortage of prepared teachers requires systematic policy reform that serves to both attract the best candidates and foster their professional development (Pini & Gorgostiaga, 2008). As such the proposed policy recommendations for Nicaragua are multifaceted. While no policy recommendation is without flaws, I offer three as a potential solution to the shortage of prepared teachers in Nicaragua: 1) Provide scholarships to incentivize
teacher candidates to enter the profession 2) Accredit schools of education whether they are normal schools or at the University level 3) Establish mentor teachers to lead school-based professional development programs.

In order to attract or recruit quality individuals into the teaching profession, scholarship opportunities for potential teacher candidates should be offered to high talented students in secondary school. Scholarships should be contingent on service in public school for a set time limit. These scholarships could be supplemented by both the Nicaraguan government and donor agencies. Furthermore, Nicaragua could provide additional incentives for candidates to serve in hard to staff schools. This policy acts as an incentive for candidates to consider teaching rather than other professions.

Nicaragua’s Ministry of Education should continue to uphold a high standard for those candidates entering the teaching profession by maintaining and regulating that all incoming teachers must have a certification of completion of Normal School. Normal Schools and the University counterparts should undergo an accreditation process by which they can be monitored for quality reflective content, constructivist curricula and classroom based practicum component. This accreditation system could either be a public or private entity with which to establish the norms and standards of a quality teacher preparation system. Accreditation would help establish a baseline with which all teacher candidates are ensured quality preparation.

Along with an accredited teacher preparation process, Nicaragua should invest in ongoing professional development opportunities to help remediate the issues of current teachers who lack necessary preparation. The Ministry of Education should employ and assign mentor teachers to municipalities who could serve as educational leaders to assess and implement specific professional development and program interventions to address areas of need in each school.
These programs could take place on a regular basis as teachers adapt their classroom practice to meet the needs of students. Funding for these programs could be a joint partnership with the government and the increasing amount of donor agencies that are willing to invest in teacher professional development.

Conclusions: Teacher Preparation as a Long Term Investment not a Quick Fix

Teacher preparation is a central component of the education reform discourse and improving teacher recruitment and subsequent preparation is a significantly complex task. Avalos (2000) concludes that teacher recruitment and preparation policies should encourage collaboration rather than competition. Raising the professionalization of teaching requires not only policy reform, but a cultural shift towards valuing the teaching profession. However, Stewart (2012) posits that successful systems have not relied on cultural respect of the teaching profession but intentionally created policies that attract, prepare, and support good teachers. In order for schools to meet the demands of our times teachers need to be prepared, perceived, and treated as professionals (Villegas-Reimers, 2003).

In their closing remarks on teachers in the developing world authors Rust and Dalin (1986) provide insight that still holds true twenty five years later.

“One thing we have confidence in is that teachers in general are willing to do what is necessary to improve, if the challenges put before them seem in the best interest of the young people with whom they work. The major responsibility, however lies with the managers and policy makers to create a climate and provide the resources necessary to assist
“teacher in their quest to improve the teaching process.” (Rust & Dalin, 1986 p 321)

Robust educational reform is a long term investment and reforming the teacher preparation process is a part of the change that needs to be implemented in order for Nicaragua to see a sustainable education system that ensures all teachers are capable and all students have a quality education.

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