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Teacher Evaluation and Resistance to Change: A Mixed-Method Study of the Peruvian  
New Teacher Career Law

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Teacher Evaluation and Resistance to Change: A Mixed-Method Study of the Peruvian

New Teacher Career Law

by

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**Dissertation**

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

In Partial Fulfillment

of the Requirements

for the Degree of

**Doctor of Philosophy**

The University of Texas at Austin

August 2013

### **Acknowledgements**

I would like to thank the Ford Foundation International Fellowships Program for the scholarship which has allowed me to pursue my doctoral degree in the United States, and all the individuals throughout my graduate experience who have inspired and supported me during my studies and shared their experiences.

## Abstract

### Teacher Evaluation and Resistance to Change: A Mixed-Methods Study of the Peruvian New Teacher Career Law

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The University of Texas at Austin, 2013

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This mixed-methods sequential explanatory study explored the causes of teachers' resistance to evaluation reform. Teachers in this study demonstrated both resistant and compliant behaviors in response to a particular evaluation policy, which also started a process for teachers to express concerns over the implementation of a new law governing teachers' careers. This research study utilized quantitative and qualitative methods for data collection and analysis, including surveys, interviews, and program documents. The responses, insights, and perspectives of 433 public school teachers provided the primary data in this study. The results indicated that the process by which the government of Peru implemented evaluation procedures negatively affected teachers' motivation toward compliance and thus impaired the success of the reform. This study also revealed that although teachers opposed evaluation, they agreed with the idea of an evaluation policy. Further, when given the opportunity to voice their opinions about evaluation procedures

and the inclusion of merit pay plans into the career ladder, teachers cited overriding problems with the organizational structures in which they worked. The nullification of teachers' tenure and rights was the most important cause of teachers' resistance to evaluation-based pay plans; responses did not differ greatly between less and more experienced teachers. Finally, throughout this study it was clear that simply mandating change was not enough to successfully and effectively implement it or to achieve advances in teacher quality and student achievement.

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## **CHAPTER ONE**

How do Latin American government policies address the problem of teacher quality? The main feature of Latin America's education systems in the past twenty years has been a rapid increase in the proportion of children attending primary school and receiving a secondary education (Benavides, Carnoy, Cueto, & Gove, 2007; Cotlear, 2008; Cueto, 2007, Luque, 2005; Navarro & Verdisco, 2000). However, even as Latin America made these large gains in the average schooling attained by young people, serious questions were raised about the quality of teaching being delivered to students (Portillo, 1999; Benavides, 2002). Although teacher quality has not been clearly defined in Latin America,<sup>1</sup> there is a growing consensus that the quality of teaching is a key to the poor quality of education (Murillo, Tommasi, Ronconi, & Sanguinetti, 2002; Luque, 2007; World Bank, 2010). Furthermore, while some state governments have established strong academic standards for what teachers need to know for a better teacher accountability policy, others have been creating teacher evaluation policies in some cases disconnected from the teacher career regulations and professional development (Lieberman & Pointer Mace, 2008).

Despite the lack of consistency between teacher evaluation policy and professional regulations in teaching, attention to teachers' incentives and their impact on teaching performance has been growing in Latin America. In particular, policies oriented to career regulations and mechanisms for recruitment, selection and promotion of teachers, are receiving a great deal of attention (Bruns, Filmer, & Patrinos, 2011).

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<sup>1</sup> In most Latin American countries a scale of teacher quality ranges from "good" teachers to the "best" teachers.

However, reforms in these areas have been hard to achieve due to the opposition of teacher unions to policies perceived as hurting their members, among other reasons (Avalos & Assael, 2006; Murillo et al., 2002; Tatto, Schemelkes, Del Refugio, & Tapia, 2006; Vaillant, 2005).<sup>2</sup>

Similar to the United States, the structure of the teaching profession—from recruitment to training to management—has not fostered excellence. The distribution of teacher “quality” (as measured by education, experience, and test scores on evaluations of teacher knowledge in subject areas) among schools serving lower and higher-income students is highly unequal. Since salaries are generally set by salary schedules negotiated at the national or regional level, teachers get paid essentially the same salary no matter how and where they work (Hargreaves, Montero, Chau, Sibli, & Thanh, 2001). Students entering teacher training are seldom among the best of their classes, courses are often deficient, and the best teachers are rarely assigned to poor students who need them most. Moreover, it is nearly impossible to remove ineffective teachers from the classroom. Investments in teacher training programs have shown to be an ineffective way to strengthening educational systems (Navarro & Verdisco, 2000). Frequent clashes between teachers’ unions and governments that result in strikes, such as those in Mexico, Chile, Peru, Honduras and Nicaragua, continue to cost students precious days of instruction (Ortega, 2007; Salazar, 2007; Tatto et al., 2006).

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<sup>2</sup> In Latin America, teacher unions represent the largest proportion of public service jobs and has significant political impact on educational reform (Vaillant, 2005).

## **Teacher Quality Reforms in Latin America**

In the late 1980s and 1990s Latin American and Caribbean countries, such as Brazil, Mexico, Chile, and Peru, implemented teacher quality education reforms (Villegas-Reimers, 2003). Many of these reforms underscored the importance of teacher preparedness and the quality of the teachers' classroom practices. However, levels of education and years of experience, the current salary determinants for most Latin American countries, have not shown a correlation with quality teaching (Pearlman, Schulmeyer, Tedesco, Tenti, Aguerrondo, Vaillant, Rego, Avalos, Namo de Melo, Chezzi Dallan, Rama, Navarro, Liang, Herran, Uribe, Romaguera, & Mizzala, 2004). Currently, the reforms on the table for improving the quality of the Latin America teaching workforce are: setting standards, implementing teacher evaluation performance systems and merit pay plans, delivering school-based training programs, offering university-based scholarships to attract the best high school graduates and other professional into the teaching profession, and proposing alternative routes to becoming a teacher (Bruns et al., 2011).

The critical relationship between teacher quality and student achievement is also well established in Latin America, so ensuring that all students have teachers with the knowledge and skills to support their academic success has become a national priority in Peru. However, regulatory competency exams is currently the only method for evaluating teachers (linked or not linked to promotion). These evaluations of teachers' knowledge represent initial efforts to increase teachers' accountability and to introduce pressure to motivate teachers to raise student learning (Loyo, 2001). However, what makes a quality

teacher or quality teaching remains elusive and hard to define in Peru (Cotlear, 2008) and elsewhere. Critics of these teacher policy reforms— such as teacher unions— argue that these measures constitute an attack on the traditional approach to public teacher management (Auris, 2003), which has emphasized credentials, seniority, job security, and union privileges instead of quantitative measurement of outcomes. Teachers’ unions also contend that most laws on teacher reforms are approved without any dialogue with teachers’ organizations, parent-teacher associations or organizations working on educational issues (Vaillant, 2005; Inter-American Development Bank, 2000).

### **The Peruvian Educational System**

The Peruvian educational system is regulated by the General Law of Education of 1982. The Constitution of 1993 (Article 16) dictates that the state coordinates educational policy, and formulates general guidelines to fulfill the objectives of the public school systems. The Ministry of Education (MED)<sup>3</sup> is responsible for planning, enforcing and managing all educational policies as a central authority and implements them through regional and zonal authorities, the Gerencia Regional de Educación GRE) and the Local Education Management Units (UGEL).<sup>4</sup> The budgetary allocation to schools is decided centrally, and it finances the great majority of the education system since fewer than 15% of children are educated privately (Hargreaves et al., 2001; World Bank (2001).

Educational attainment is relatively high in Peru but still very unequally distributed between urban and rural areas. The past 15 years of primary school expansion have

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<sup>3</sup> The Ministry of Education was established in 1837 and it exercises authority over a sprawling network of schools for which it uniformly determines curricula, textbook content, and the general values that guide classroom activities.

<sup>4</sup> Peru has 270 UGELs, which are organized under 26 regional education management offices. These regional offices report to the Ministry of Education, headquartered in the nation’s capital of Lima.

produced near universal access to full primary education. The majority of urban youth are also likely to finish secondary education (64 percent of urban 16- to 18-year-olds have completed secondary school), but the vast majority of rural youth are not (only 24 percent of 16- to 18-year-olds have completed secondary). In urban areas, a relatively high percentage of youth also attend some years of post-secondary school (Ministry of Education of Peru, 2010).

In terms of quality, public education in Peru lags behind the rest of the Latin American countries. According to the 2000 publication of student achievement data (Centro de Estudios Internacionales TIMSS & PIRLS, 2004; Crouch & Fasih, 2004), more than half of Peru's first and second graders could not read, and students fared poorly on international tests. One of the factors associated with the low level of education quality in Peru is attributed to the poor teaching quality. Poor quality teaching is a result of a number of factors including: poor teacher skills, lack of teacher supervision, low teacher motivation, and low teacher salaries. By early 2001, of 350,000 teachers, 30 percent did not have official teaching positions (Benavides et al., 2007; Carnoy, 2008). According to the World Bank (2010):

The latest student assessments indicated an increase in the proportion of students reading at or above grade level, from 16 percent in 2007 to 23 percent in 2009. These included 18 percent of students in state schools compared to 43 percent in non-state schools, and 29 percent of students in urban areas compared to 12 percent in rural areas. (p. 47).



The findings reported by the World Bank in 2010 are supported by previous research based on international comparisons. Quality of education in Peru, as measured by students' scores on international tests (PISA, 2001, SERCE, 2006), is at the low end in Latin America, much below Costa Rica, Uruguay, Mexico's, Chile's, Argentina's, and Colombia's results on the same tests. Peruvian students on Pisa were worse than that of any other participating country's students of Latin America with more pronounced rural-urban differences (World Bank, 2001, UNESCO, 2009). Peru also spends relatively little on its primary and secondary education system. Its costs per pupil are among the lowest in Latin America, and its teachers are paid among the lowest in the region relative to per capita income and compared to other public servants. Peru expanded education in the 1970s and 1980s largely by making it less expensive—principally by reducing teacher salaries in real terms (Benavides et al., 2007). Peru shares with most countries a fundamental lack of capacity for managing a massive and highly diffused education system. This is one more reason why the quality of these services is so low.

### **The Teaching Profession in Peru**

The Peruvian educational system has a total of 489,000 teachers. More than 60% of these teachers (307,448 teachers) work in the public service and 31% (95,503) work in rural areas (Ministry of Education of Peru, 2012d). Peruvian teachers are paid among the lowest in Latin America. In 1999 teachers earned on average S/ 787.88 (US\$ 228).<sup>5</sup>

Teacher pay and incentives are major problems in Peru, and it represents part of the

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<sup>5</sup> Data provided by the Ministry of Education (1999). New teacher salary increases corresponded to 50 soles in 2002, 100 soles in 2003, and 115 soles in 2004 (Alcázar, Rogers, Chaudhury, Hammer, Kremer, & Muralidharan, 2006).

general problem of recruiting bright people into the teaching profession (Benavides et al., 2007). Teachers earned about 25–30 percent more than the per capita income in the early 1970s and earned about 23 percent less than the per capita income in 1990, a drop of about 50 percent relative to the average Peruvian's economic situation (Arregui, Díaz, & Hunt, 1996; Benavides et al., 2007). Part of this fall in the teachers' relative position of teachers is due to an increase in average education in the Peru's labor force, but part is due to a fall in teachers' wages relative to those of other professionals.

In Peru's educational system, the teaching supervision system and teacher and school accountability systems are essentially nonexistent (World Bank, 2006). The system also lacks incentives for the better teachers to serve as an example to other teachers. This would require redefining the teacher career ladder to provide possibilities for recognizing professional excellence (Chiroque, 2001; Chiroque, 2004a). All teachers have received proportional raises in 2002, 2003, and 2004. The raises have been based on academic degrees and location of the school where the teacher works, and are intended to correct the overall low level of salaries, not to develop a new teacher pay structure. Currently, a teacher's salary increases primarily with years of experience, and those increases are small (Martinic & Pardo, 2000). There are no incentives for performing well or disincentives for not performing well, because teachers are not evaluated by their performance in classrooms, and no broad accountability system exists anywhere in the educational system (Alcázar, Rogers, Chaudhury, Hammer, Kremer, & Muralidharan, 2006; Cotlear, 2008).

Large investments in teacher training are being made in Peru. However, teacher policy issues are politically and ideologically charged (Grace, 1985), financially unsustainable, and technically weak and loose (Navarro & Verdisco, 2000). The World Bank and the Ministry of Education developed a program to train teachers to implement the new curriculum that was developed during the second half of the 1990s. This program, Plan Nacional de Capacitación Docente, or PLANCAD, which had the support of the Bank, was a major effort that included almost all primary school teachers throughout the country. The emphasis of the training was on constructivist methods of teaching. Three large national evaluations for teachers were undertaken in the second half of the 1990s that helped to regulate the distribution of permanent (nombrado) teaching jobs (temporary, untenured teachers are called contratados). Each evaluation was exclusively based on multiple-choice questions (i.e., teacher performance was not evaluated). These tests had several flaws, including no studies on their validity, but they were an important first step toward standardized evaluation of teachers.

In 2001, President Toledo's new Minister of Education, Nicolas Lynch, called for radical changes in the teacher career plan (and career ladder), which had traditionally been based credentials and years of teaching experience. He set up a national evaluation as the first step toward meritocracy (President Fujimori had developed several similar evaluations in the 1990s). The 2001 evaluation proceeded in three stages: (a) an evaluation of a teacher's portfolio, (b) a personal interview by peers and parents, and (c) a written (multiple choice) test for those who passed the first two stages. Although radical factions in the teachers' union opposed the evaluation, it went forward. Based on exam

results, the Ministry of Education was able to fill only 23,000 of the 32,000 available teaching posts. The other 9,000 positions were distributed to teachers on the basis of their political connections. Even so, this was a major reform in a system in which there is a vast surplus of teaching graduates relative to available teaching positions.

### **Multigrade Teaching in Rural Areas**

Multigrade schools are the most common form of school for children who are dispersed throughout the countryside (Hargreaves et al., 2001). Working in a rural school is often the first job a teacher takes in her or his career. Therefore, it is common to find young teaching staff in rural areas. Rural teachers often lack the basics for living, such as running water, healthy food, electricity, housing furniture and adequate space for class preparation. Given the difficulties, rural teacher motivation is often very low (Benavides et al., 2007). The 1993 Education Census (Ministry of Education of Peru, 2003) revealed that only 35% of rural teachers had a teaching degree while the remaining 65% had none. While the situation has improved since then, the evidence from rural schools suggests that few teachers are capable of quality teaching.

The multi-grade situation, teaching students in different grades in a single classroom, makes quality teaching even less likely. Even those teachers who have training have not been instructed in multi-grade methodology and there appears to be an unwillingness to provide this kind of training (Arregui et al., 1996). In 2003, 27% of the country's primary schools were single-teacher institutions. For the rural area, this figure was 37% (Ministry of Education of Peru, 2003). Teachers who work in a one-teacher multi-grade school are often responsible for carrying out official business, obtaining

foodstuffs, and looking for material support. There is no system of administrative support for teachers carrying out their official activities and a system of pedagogical support that would help them to improve their actual work in the classroom. In rural areas, in particular, the problem of multigrade teaching is also exacerbated by the widely dispersed population and difficult terrain, lack of infrastructure, and difficult living conditions that lead to teachers' lack of career satisfaction.

### **Teacher Career Laws**

**Ley del Profesorado.** In Peru, the teaching profession has been regulated by Law No. 23029 (Ley del Profesorado), which provides generous benefits and life-long tenure to public school teachers based on credentials, seniority, job security, and union privileges (Chiroque, 2001; World Bank, 2001). The Ley del Profesorado was passed in 1984 and modified in 1990. The law created five salary grades, and salaries were calculated based on those grades. Advancement between grades 1 and 2 was by seniority only, but beyond grade 2 advancement between grades was based on various promotion criteria, as shown in Table 1. Although this law represented an advancement in the recognition of the professional status of teachers, in practice it suffered from a lack of incentives to encourage teacher commitment, professional development, and higher performance, which could translate into better teacher achievement.

**Table 1**

***Promotion Criteria According to Ley del Profesorado***

Criteria	Points
<i>Professional Background: 100 points</i>	
Titles or degrees	30
Further course work/specialization	25
Seniority	30
Responsibility of post held	15
<i>Professional Performance: 60 points</i>	
Efficiency on the job	30
Attendance and punctuality	15
Participation in community work	15
<i>Merits: 40 points</i>	
Official distinctions and honors	20
Intellectual production	20

Note. The Ley del Profesorado was approved in 1984 and modified in 1990.

Source: Chiroque, 2004.

Since no teacher supervisory system exists under this law, regulations for effective teacher professional development and teaching practice were not created. In 2001, the government of President Alejandro Toledo launched one of the first reforms of teaching tenure in Peru to convert a large number of contract-based teachers (*contratados*) into permanent appointments (*nombrados*). For Peruvian teachers, converting from a contract to an appointment represents a major step forward in job stability because permanent appointees are much more difficult to dismiss (Schwartzman, 2001). However, this new government policy attempted to make the appointments merit-based through an open competition on the basis of an examination of substantive and pedagogical knowledge. Because of a series of irregularities in the evaluation process for permanent appointments, teacher opposition led to serious tensions between the SUTEP

(the teachers' union) and the Toledo government, including a 21-day hunger strike and widespread violence (Benavides et al., 2007).

**Ley de la Carrera Pública Magisterial (CPM).** In 2007, the President of Peru signed a far-reaching teacher merit-pay bill that has overhauled how teachers across the state are evaluated and paid (Cuenca & Stojnic, 2008; Rivero & Vexler, 2012). On July 11<sup>th</sup>, 2007, the Peruvian Congress approved a controversial bill for the Ley de Carrera Pública Magisterial (CPM). This law was the result of many years of consultation and negotiation with leading experts, represented by the ex-ministers of education and university professors who comprise the Consejo Nacional de la Educación; the law also enjoyed considerable public support (Rivero & Vexler, 2012). The main points of the law refer to the need for the evaluation of state school teachers as the basis for promotion and merit-based pay (Ministry of Education of Peru, 2007). Article 27 of the CPM, which outlines the requirement for teachers to be monitored periodically, introduces the testing of teachers' professional abilities. It stipulates the need for further training for those teachers who fail a third time and says they should be removed from their posts (Inter-American Dialogue, 2007). They could either sit for a public exam to work as a teaching assistant or receive financial compensation depending on their length of service. The government claims that the law is fundamental to improving the quality of education and ensuring that teachers in state schools are up to the job. Educational standards in Peru are low and the law aims to optimize the quality of teachers through training (Cotlear, 2006), teachers will be remunerated as they move up the scale (Salas, 2012). Those who oppose the law, on the other hand, oppose the influence of the World Bank regarding the policies

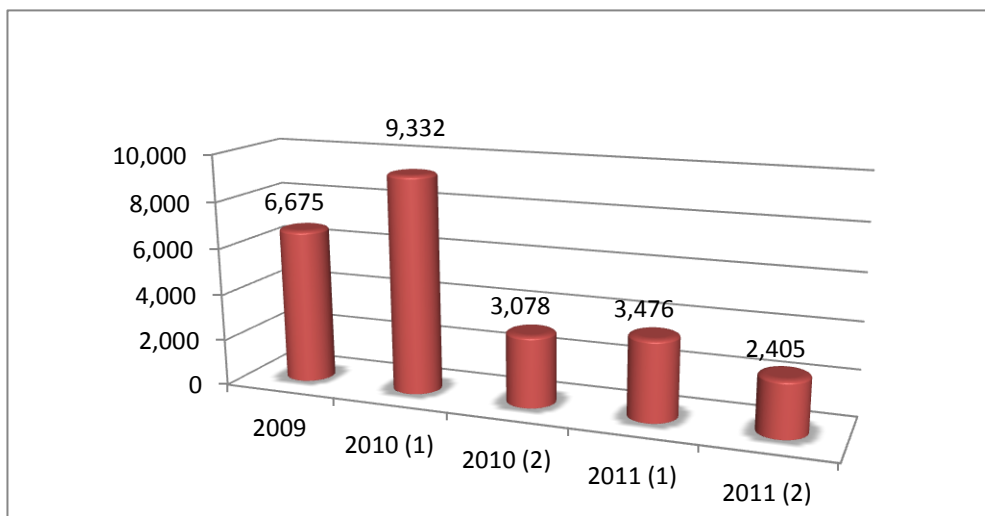
of teacher quality in Peru and believe that it will lead to massive dismissals and salary cuts (Ramírez, 2012). They also question the validity of the evaluations themselves. Another criticism of the new law is that it was approved after virtually no dialogue with teachers' organizations, parent-teacher associations, or organizations working on educational issues (Inter-American Dialogue, 2007). The problems afflicting the education system in Peru are deep-rooted and cannot simply be attributed to the teachers. Since the law's approval in 2007, teachers' evaluation reforms in Peru have continued to generate teacher resistance which reflects two opposite poles found in the literature on teacher performance.

As teacher's test results for 2007 (which only 60 percent of the teachers took) showed that almost one half of all state school teachers could not solve basic math problems and only a quarter achieved an adequate level of reading (Peru Support Group, 2010), and since being certified under the new Ley de la Carrera Pública Magisterial is a voluntary process, teachers' major concerns are: (1) opposition to the privatization of education and the obligation to undergo continuous assessments, (2) teachers' doubts that the incentives will be put into practice and this funding will be sustainable: the previous law provided for promotions and pay raises every three years but they were never implemented, in fact, there are teachers with more than 25 years of service who are still paid 1,000 *soles* (315 dollars) a month (Paiba, 2012a), (3) massive dismissals of teachers and salary cuts, (4) problems with the evaluations themselves, (5) the new law's approval with little dialogue with teachers' organizations, parent-teacher associations or organizations and without a second vote in Congress, as standard procedure requires, (6)



fear of the state's administrative procedures against striking teachers and union leaders, as well as conflicts between government and the heads of the Peru's 25 regional authorities, who favor the teachers' right to strike as enshrined in the Constitution.

Figure 1 shows the number of teachers certified by the CPM during the period of 2009-2011. The bars show a decreasing number of certified teachers per year after the implementation of the law, despite the government efforts to certify the majority of teachers. The 25,000 compliant teachers, who were regulated by the Ley del Profesorado, voluntarily participated in the certification process. Thirty thousand more teachers were certified under the Ley de la Carrera Pública Magisterial as they gained their first appointment in the education public sector.



*Figure 1.* Number of teachers certified by the CPM. Source: Ministry of Education of Peru, 2012.

**Ley de la Reforma Magisterial.** Despite widespread opposition and resistance to the Ley de la Carrera Pública Magisterial by the Sindicato Único de Trabajadores de la Educación del Peru (SUTEP), the Humala administration's renewed interest in the

inclusion of merit pay plans into the teacher evaluation system has been translated in the new Law 29944 (Ley de la Reforma Magisterial). The Ley de la Reforma Magisterial is an 8-tiered progressive career system in which teachers are required to demonstrate increased competencies and undertake increased duties as they progress through career levels. Progress through the system guarantees minimum salary levels for teachers at different stages of their careers (Salas, 2012; Ministry of Education of Peru, 2012d; Paiba, 2012a). The new Law went into effect January 1, 2013 and its main purpose was to unify into a single teacher career system the total number of public school teachers regulated by the two systems currently in effect (Ley del Profesorado and Ley de la Carrera Pública Magisterial). The 8-tiered career ladder also provides teachers with opportunities for advancement both inside and outside the classroom, as well as additional compensation and increased recognition through accountability and support (Ministry of Education of Peru, 2012d).

The system links career levels and salaries to teachers who pass professional competency tests and demonstrate satisfactory classroom observation results; it supports ongoing professional development (Chiroque, Paiba, Rivero, & Trahtemberg, 2012; Salas, 2012; Paiba, 2012, October 30). It has been nationally recognized that the new Ley de Reforma Magisterial, which calls for a significant boost in teacher salaries, will improve teacher quality and performance. The main feature of the new law is a higher *base pay* or beginning salary, which is called Remuneración Íntegra Mensual (RIM). Teachers will be paid a starting salary of S/ 49.83 (soles) per hour of class, plus a *variable pay bonus* with extra duties, and a performance pay system starting at Level I.

As teachers advance up the career ladder, they will become eligible for additional compensation, with opportunities to earn more throughout the scale, finally earning 160% of their salaries in Level VIII (Ministry of Education of Peru, 2012b, 2012e). Table 2 shows the median salary among all public school teachers, which is S/ 1,554.90 soles. The new law has established three different starting salaries (S/ 1,243.92, S/ 1,554.90, and S/ 2,073) for teachers who work 20, 30, and 40 hours respectively per week on average (Ministry of Education of Peru, 2012b). This classification is based on the number of hours per week in relation to teachers' level of specialization (kindergarten, primary, secondary, and administration). According to the Ministry of Education (2012e), teachers will increase their salary with additional incentives by moving into administrative roles with more responsibility, such as school principal, teacher trainer, head of the Local Education Management Unit (UGEL); there are also additional incentives if the school is located in a rural area or on the border of two countries. Teachers will also receive bonuses for working in a single-teacher school, a classroom consisting of multiple grades, or bilingual schools.

**Table 2*****Remuneración Integral Mensual (RIM) by Career Stages and by Hours per Week (Ley de la Reforma Magisterial)***

Level	24 hours	30 hours	40 hours
VIII	S/ 3,234.19	S/ 4,042.74	S/ 5,390.32
VII	S/ 2,861.02	S/ 3,576.27	S/ 4,768.36
VI	S/ 2,487.84	S/ 3,109.80	S/ 4,146.40
V	S/ 2,114.66	S/ 2,643.33	S/ 3,524.44
IV	S/ 1,741.49	S/ 2,176.86	S/ 2,902.48
III	S/ 1,554.90	S/ 1,943.63	S/ 2,591.50
II	S/ 1,368.31	S/ 1,710.39	S/ 2,280.52
I	S/ 1,243.92	S/ 1,554.90	S/ 2,073.20

Note. Teachers' per-hour wage is S/ 49.83 soles (\$19.16).

**Two Controversial Laws and a New Bill.** For almost two decades, the policy of teacher evaluation in Peru has long been an issue of debate and conflict between the state government authorities and the teachers' union, SUTEP (Chiroque, 2005; Cuenca & Stojnic, 2008).<sup>6</sup> Increasingly, the government of Peru is reforming its methods of evaluation through legislation but without negotiations with the teachers' union. With the enactment of the Ley de la Carrera Pública Magisterial (CPM), the Peruvian Congress passed its first landmark piece of merit-pay teacher career legislation. Since being certified by the CPM was a voluntary process for public schools teachers, only 19 % of teachers became certified during 2007 to 2011, according to the Ministry of Education in 2011. The enactment of a new law (Ley de la Reforma Magisterial) represents the current government attempts at a solution to the longstanding conflict with SUTEP over issues of teacher pay, job security, and teacher evaluation based on standardized scores for salary

<sup>6</sup> SUTEP has long been controlled by a left-wing political party, called Patria Roja. This political control has been considered as one of the main obstacles to introduce reforms into the teaching profession in Peru (Peru Support Group, 2008).

increases. Table 3 is used to facilitate comparisons between the past and present teacher careers laws.

**Table 3**

*Comparison of the Teacher Career Laws in Peru*

Law Level/Grade	Ley del Profesorado(24029)		Ley de la CPM (29062)		Ley de la Reforma Magisterial (29944)	
	Years per level	% of Level	Years per level	% of Level	Years per level	% of Level
VIII					Until retirement	160
VII					5	130
VI					5	100
V	Until retirement	6.5	Until retirement	100	5	70
IV	5	4.5	6	50	4	40
III	5	2.8	6	30	4	25
II	5	1.2	5	15	4	10
I	5		3		3	

Note. Promotion between levels is based on education units, university degrees and years of experience. Source: Ministry of Education of Peru, 2012.

In examining Table 3, it is important to highlight the main differences in the three systems: (1) number of stages or levels; (2) number of years for each level; and (3) salary increases per level. The number of stages was increased from 5 in the Ley del Profesorado and the CPM to 8 in the Ley de la Reforma Magisterial.<sup>7</sup> Increasing the number of stages suggests that teachers will have up to 30 years until retirement (Ministry of Education of Peru, 2012b). According to Paiba (2012, November 9), the increased number of years in each stage of the career will give teachers the opportunity to have a more productive professional life until retirement. Teachers received a 100%

<sup>7</sup> For both the Ley del Profesorado and the CPM, the career path and scaled salary for promotion are organized in 5 levels (I-V) for teachers with a title degree, with a minimal of 5 years to be in each before reaching a higher one (modification in the law, 1990).

increase at Level V of the CPM and will receive a 160% increase at of the Level VIII of the Ley de la Reforma Magisterial. These increases contrast with the traditional Ley del Profesorado, in which such increases were minimal (1.2% up to 6.5% of the teacher salary) over a career of 20 years of experience (Díaz & Saavedra, 2002a).

The overall increase of the base monthly salary did not take into account the spirit of the reform or the conflicting relations between the government and teachers (Rivero & Vexler, 2012). The overriding aim of the policy is to pay teachers more at the beginning but offer more promotions and the possibility of higher salaries at the end of the career. Higher salaries and more promotions will make teachers more effective and will motivate them to better performance. However, the introduction of merit pay plans into the evaluation system of the Ley de la Carrera Pública Magisterial and Ley de la Reforma Magisterial are likely to be complicated by the changes that the government has made in the salary schedule. As teachers regulated by the old laws (Ley del Profesorado and the CPM) are being reassigned to different levels under the new law, they feel that they are losing their benefits and rights. Endorsing merit pay for teachers has been generating a conflict of interest between teachers represented by their union and those represented by government authorities (Cuenca & Stojnic, 2008; Chiroque, 2005). On the one hand, defenders of the Ley del Profesorado (mostly SUTEP's affiliates) argue that the union, using their powerful grip on education politics and policy, is only preserving teachers' tenure and teachers' right to a fair evaluation. The main concerns for teachers are those related to the increase of teacher salaries based on standardized tests, and the government's debt to teachers for preparation class (30 percent of teacher salary).

Although teachers regulated by the Ley del Profesorado have not received a pay increase since 2006 and the Garcia Government had not implemented national tests that allow these teachers to advance from level II to the highest level of the career ladder, SUTEP bristles at the idea of teachers being fired or rewarded based on teacher test scores. On the other side, advocates of the CPM, enacted in 2007, believe that the eight levels of the New Ley de Reforma Magisterial are unnecessary and that placing all teachers on the I, II, III or IV Level before being evaluated destroys the true sense of meritocracy (Rivero & Vexler, 2012). Advocates detest the Garcia government's lack of political will continuing with the implementation of CPM.

The current Minister of Education in Peru, Patricia Salas, believes that it was necessary to unify the two current teacher career legal frameworks into one system in order to guarantee the professional development of all teachers in Peru (Salas, 2012). However, the National Board of SUTEP considers the present government to be like past governments, developing measures that are an expression of neoliberal continuism (Peru Support Group, 2010). According to SUTEP, the government is trying to impose an education reform law without discussion with the Mesa de Trato Directo, which was set up for dialogue in 2007. The most recent national teachers' strike, which lasted more than one month (September 5, 2012 to October 6, 2012), showed that the positions of Peruvian educational policymakers are not aligned with those of SUTEP and that the union has been effective in stopping policies with which it disagrees. The changes introduced by the new Ley de la Reforma Magisterial (Table 3) raised the following questions: would paying teachers 100% or 160% more mean that they would be more motivated and have

better performance in the classroom? Smaller raises of 1.2 to 4.5% of the teacher *base pay*, like the salary increases in the Ley del Profesorado (Díaz & Saavedra, 2002a, 2002b), have been ineffective according to state tests of student achievement. I argue that higher salaries won't improve teacher performance in Peru unless teacher policy designers raise salaries along site enhancements in working conditions and create policies that attract and keep good teachers in the workforce, and enhance school working conditions.

### **El Sindicato Único de Trabajadores de la Educación Peruana (SUTEP)**

The Sindicato Único de Trabajadores de la Educación Peruana (SUTEP) is a consolidated and centralized body that seeks to influence both general policies as well as sector decisions. SUTEP is the only teacher's union in Peru and was founded in 1972 (SUTEP, 2013). SUTEP has had an important role in the last three decades due to the mobilization of teachers. Its political informal power, influence, and economic importance declined during the 1990s, although it has started to increase its influence on policy based on the controversial process of appointing temporary teachers by the Ministry of Education since 2001. The union is the largest in the public sector in Peru. Questions about its effect on the quantity and quality of educational services remain of clear importance for policymakers and researchers. After 1977, a leftist party of Maoist extraction called Patria Roja gained control over the union leadership, which it still holds today (Crouch, 2005). During the 1980s SUTEP concentrated its activities on organizing eventual national strikes, which were less and less effective as the country's economic



conditions deteriorated. In 1984, after several years of union pressure and mobilizations, the union was finally recognized by the Belaúnde Government (1980-1985).

A new law for teachers (Ley del Profesorado) was passed in 1984, which created a special status for teachers as public servants with full duties and privileges. A teacher who is tenured (i.e., who occupies a formal position in the public sector) has job security and social benefits upon retiring. The approval of the Law is considered one of the important achievements of SUTEP since its foundation. Since the impact of any salary adjustment for teachers on the public budget is generally very large, the last three governments (1980-85, 1985-90, 1990-2000) have been totally opposed to any significant increase in teachers' wages in real terms. After 1993, the authorities introduced an innovation in their labor relations, allowing the hiring of "temporary" teachers. Currently, it is estimated that about 25 percent of teachers have non-tenured status in the public sector. This dual structure for teachers is not linked to any significant wage differences (differentials are minimal; wages being equally low for all teachers).

There is, however, an important distinction: non-tenured teachers do not enjoy job security and as a consequence can be fired at any moment without compensation in addition to not receiving any pension benefits. This is so because they are hired using a contract in which the non-tenured teacher is a sort of service provider without any of the considerations of a stable labor relationship. Clearly this option was used to avoid increasing pressure over social benefits among teachers while accommodating the increasing demand for them.

In the 1990s SUTEP did not play a direct role regarding wage bargaining or even policy decisions. After the collapse of wages at the beginning of the 1990s, teachers' real wages could not recover during the decade under Fujimori's rule and at the end of the decade these were a mere 70% of real wages in 1990. Since 1996 the Peruvian educational system enjoyed higher levels of investment, especially in inputs, training and infrastructure. Although SUTEP did not play a significant role in these decisions, at least at the central level, it influenced the impacts on educational outputs. Since 2007, SUTEP's reaction to the new Ley de la Carrera Pública Magisterial is defensive and interpreted as a case of "market forces" affecting education. SUTEP has demanded that the proposed new legal framework for the new Ley de la Carrera Pública Magisterial be discussed in a national debate before being submitted to Congress. A new law passed at the end of 2012, Ley de la Reforma Magisterial, requires all public school teachers without exception to be regulated under the new system based on evaluations and merit pay. SUTEP continues their resistance to salary increases based on meritocracy and opposes the firing of those teachers identified as "developing" or "ineffective" following a second training course.

### **Research on Teacher Quality, Evaluation, and Merit Pay**

Research studies that address the issue of teaching quality, teacher evaluation, and merit pay plans can be classified into three groups. A first group of studies focus on the positive relationship between teachers' subject matter preparation and student achievement as well as higher teacher performance on evaluations, particularly in mathematics, science, and reading (Darling-Hammond 1999a, 1999b; Goldhaber &

Brewer, 2000; Wilson & Youngs, 2005). These studies have been the topic of research over the last 50 years (Grossman, 2008). Variables presumed to be indicative of teachers' competence include measures of academic ability, levels of education, years of teaching experience, measures of subject matter and teaching knowledge, financial aspects of teaching, and certification status. In manipulating teacher inputs, policymakers assume that there is an empirical link between these inputs and student test scores and other measures of academic performance. Research in this field also focuses on the relationship between teacher preparation pathways and student achievement. Goldhaber and Brewer's work (1997, 2000) found that teacher content knowledge as indicated by a Bachelor in Arts degree in the field may be more significant than teacher certification in the field. Darling-Hammond and Youngs (2002) have argued that there is strong evidence to support the assertion that the preparation in pedagogy that pre-service teachers receive in traditional certification programs makes a difference.

A second considerably larger set of studies explores the link between classroom practices and student academic performance (Schacter, 2001). Such a link and its complexities are recognized by McLaughlin and Talbert (1993) and Wenglinsky (2000, 2002, February 13) in their study's contribution to establish a link between classroom practices and student achievement. Wenglinsky (2000) showed that teacher inputs, professional development, and classroom practices all influence student achievement, and that the greatest role is played by classroom practices. In "How Teacher Matters Bringing the Classroom Into Discussions of Teacher Quality" (2000), Wenglinsky linked higher student test scores in math with teachers' professional-development training in higher-

order thinking skills and in working with special populations of students. The study found a similar jump in science-test scores in connection with teachers who had had professional-development training in hands-on laboratory skills. The study's data have suggested that other, more all-purpose types of training content—e.g. classroom management, interdisciplinary instruction, collaborative learning—had a minimal or negative effect on student scores (Wenglinsky, 2000).

A third group of studies focus on the way teaching incentives affect teaching quality, and how teachers' perceptions of evaluation for merit pay relate to teachers' career satisfaction. In "Merit Pay and the Evaluation Problem: Why Most Merit Pay Plans Fail and a Few Survive," Richard Murnane and David Cohen (1986), used the framework of microeconomics to account for the short lives of most merit pay plans. The authors demonstrated that teaching is not "an activity that satisfies the conditions under which performance-base pay" is an efficient method of compensating workers. Larry Weber and Janice McBee (1990), in "Teacher Evaluation Instruments for Merit Pay Decisions Is Their Use Justifiable?," investigated how effective representative teacher evaluation instruments are for determining eligibility of public school teachers for merit pay. Elementary school principals' ratings of teachers were analyzed. Findings suggested that rating instruments may be useful for making initial decisions about who should be eligible for further consideration. A growing body of empirical works has concluded that incentives negatively affect the education sector, both by increasing costs and by lowering achievement (Brimelow, 2003; Hoxby, 1996; Lieberman, 2000). Others have

found mixed and ambiguous results in the way teacher incentives related to student achievement (Eberts & Stone, 1984; Grimes & Register, 1990; Stone, 2000).

Using surveys and interviews, Milanowski and Heneman (2001) evaluated whether teachers understood the evaluation system, accepted the teacher standards, perceived the standards and evaluation process as fair, felt that evaluators conducted the evaluation in a satisfactory manner, and felt that evaluation positively impacted their development as a teacher. The researchers found that the understandability, acceptability, and personal experiences with the actual evaluation were critical in influencing teachers' reactions to the system. Additionally, in public schools, younger and less experienced teachers have higher levels of satisfaction than older and more experienced teachers do. Conley, Muncey, and You (2006) found that teachers' career satisfaction is favorable when teachers have positive perceptions of evaluation and supervisory behavior. In a more recent study, Heneman, Milanowski, and Kimball (2007) found that subsequent evaluations of merit pay plans harm teacher effectiveness, especially given the frequent deployment of new plans; it was acknowledged that the problem was not merit pay per se but the way the plans were designed, implemented, and administered.

### **Paucity in the Research Literature**

Despite all the attention that improving teacher quality has garnered, the research-based recommendations that have been proposed generally suffer from two problems. The first problem is that, in emphasizing aspects of teacher quality that occur outside the classroom, these research studies often ignore practices in the classroom (Wenglinsky, 2000). Most research studies tended to stress aspects of teaching that occurred outside of

the classroom, known as teacher inputs, as the instrument for improving student performance. The non-classroom factors targeted by these proposals include qualifications of teachers such as requiring teachers to pass a licensure examination or encouraging teachers to obtain a master's degree (Darling-Hammond, 2000). These studies often neglect the important role that the practices actually occurring inside the classroom may play in student learning.

The second problem is that few research studies document the effects of the large-scale government policies and institutional practices aimed at improving teacher quality that affect the overall teachers' professional career and regulations. In Latin America, research on teacher quality and evaluation techniques is scarce. The most notable omission is the lack of research studies that make use of teacher data gathered through national teacher evaluation systems available at the Ministries of Education. An exception is Murillo, Tomassi, Ronconi, and Sanguinetti's (2002) study of the economic effects of unions in Argentina. Based on a substantial amount of new information, the authors uncover the main channels of union influence on teachers' and students' performance. Other variables influencing teachers' performance were teachers' tenure, job satisfaction, class size, education budget and teachers' salaries. However, each variable probed to be factors determining levels of satisfaction that are decisive in professional life.

### **Statement of the Problem**

In Peru, a teacher's career is regulated by statute (Ley del Profesorado, or Teacher Statute; Law Number D.S. 019-90-ED signed in 1984). In theory, the law ties monetary

rewards to increases in salary grade and the salary grade changes should be at least 50 percent driven by some measure of performance (Crouch, 2005; Chiroque, 2006). Since 2004, government policies aimed at controlling the quality of teachers have generated considerable interest (and conflict), such as applying knowledge tests to candidates for permanent appointment without linking those tests to the teaching career ladder. In 2007, the President of Peru signed a new far-reaching teacher merit-pay bill (Ley de la Carrera Pública Magisterial) that has overhauled how teachers across the state are evaluated and paid. The new law creates an evaluation system that relies heavily on teachers' test score data to judge their quality.

The vast majority of teachers (87%) along with the statewide union (SUTEP) are opposed to the law. They say the law will be expensive, will rely on an unproven system and won't fairly evaluate teacher performance. Fulfilling the teacher education reform law will require 1.4 billion *soles* (443 million dollars) per year for the salary incentives. Since the law's inception in 2007, only 55,000 teachers have been certified under the new law. This number represents 18.41 % of the total number of teachers in Peru, who actually numbers 298, 711 (Ministry of Education of Peru, 2012d). Teachers' resistance to being evaluated and widespread disappointment with the effectiveness of Peru's new teacher career law is the most critical challenge for the current government of Peru. As teachers' test results for 2007 (which only 60 percent of the teachers took) showed that almost one half of all state schoolteachers could not solve basic math problems and only a quarter achieved an adequate level of reading (Peru Support Group, 2010). Although experts and policymakers see this new law as an advance for teachers' careers, the law

has proven ineffective both in gaining teacher approval and in attempting to improve teachers' career structure. Both elements are important in order to assure quality teaching.

At the conclusion of 2012, a new career bill was passed for teachers. The new bill has unified the two teacher career structures in a new system that includes evaluation based pay plans as the basis for professional development. Last year, SUTEP was seeking an immediate non-conditional salary increase based on scores in teacher regulatory competency exams. SUTEP continues to demand government compliance with rights guaranteed to teachers by the Ley del Profesorado and also a fair evaluation based on performance in the classroom. More than eighty percent of public school teachers resisted evaluation based on regulatory competency exams during Garcia's government and remain angry that President Ollanta Humala has not upheld commitments to teachers as promised during his electoral campaign in 2010.

### **Purpose of the Study**

Improving teacher effectiveness is a critical component for improving student outcomes in teacher legislation in Peru. However, teachers' reactions to the reforms have significantly impacted the goals of these reforms. It is critical importance to identify teachers' perceptions and beliefs in order to understand causes of resistance and improve teacher quality. While the discussion continues regarding of what constitutes a good and effective teacher, as well as the most effective way to evaluate them, resistance and opposition to reforms persist. The purpose of this study was (1) to determine the perceptions and beliefs about a new evaluation process, (2) to identify factors for compliance influencing compliance, and (3) to identify causes of resistance to the



implementation of a new evaluation system and merit pay plans governing career advancement.

### **Research Questions**

The following questions guide this research:

**Research Question 1.** What are the teachers' perceptions and beliefs about the evaluation process as part of the new career structure for teachers in Peru?

**Research Question 2.** What factors have had the greatest influence on teachers' compliance with the Ley de la Carrera Pública Magisterial (CPM)?

**Research Question 3.** Of those teachers who are resisting evaluation, what are the most compelling reasons for those with more than 20 years of experience and those with less than 20 years of experience for such resistant behavior?

(3.1) Is there a significant difference in the importance of *financial incentives* based on teachers' competency exam scores related to their levels of experience?

(3.2) Is there a significant difference between the two groups in the importance of a reduction in *teachers' benefits and rights*?

(3.3) Is there a significant difference in the importance of ending *teacher tenure* as a cause of resistance?

(3.4) Is there a significant difference in the perceived importance of the *financial costs of the law implementation* and is it sustainable?

**Research Question 4.** What are the circumstances and conditions under which compliance and resistance to new laws occur in Peru?

**Research Question 5.** What is the impact of teacher resistance to evaluation in schools? How does teacher resistance affect the goals of reform?

### **Significance of the Study**

This study is noteworthy in several ways. First, to date, no research has been found that formally studies the implementation of a new teacher career policy in Latin America. Governmental policies to measure teacher quality with regulatory competency exams are controversial in Latin America and ever more prominent part of Peru's educational reform agenda in teacher education, also being discussed in other Latin American countries. Second, the study intends to respond to the growing demand for new approaches to the design of public policies for the improvement of teacher evaluation methods and the introduction of merit pay plans in teacher career structures. Third, understanding teachers' perceptions of the evaluation policy is vital to understanding the failure of the policy implementation. Too often teachers' evaluations are too lenient and fail to adequately differentiate between teachers at different levels (Weisberg, Sexton, Mulhern, & Keeling (2009). To be effective, teacher evaluation systems must be well understood by teachers and should result in the identification of genuine differences in performance (Danielson & McGreal, 2000; Milanowski, Princi, & Koppich, 2007).

Finally, the study's findings could be used as a basis for changing teacher's evaluation systems in Peru, which has an impact on teaching and learning as prescribed in the CPM (Ministry of Education of Peru, 2007) guidelines, and ultimately, will also increase the supply of the best teachers in the high-need areas of the country. This study will contribute valuable information to the educational community by offering detailed

descriptions of the teacher's perceptions, expectations, and frustrations about the implementation of the CPM in Peru. Given the high number of public schools teachers that do not reach the minimum score on the regulatory competency exams, additional interest in these data may be expected from the public in general. The findings may be useful in terms of assessing the impact of the new law. This also may facilitate the dialogue between governments, teachers' organizations, private actors and international organizations on key issues when planning policies on teacher quality.

### **Term Definitions**

**Merit-based Pay.** Merit-based pay rewards teachers based on individual merit scores as they advance up career ladder. Advancement from one stage to another, includes classroom observations and teacher portfolios.

**Teacher Quality.** Teacher quality can be thought of as those attributes the teacher brings to the classroom, including specialized knowledge. Some factors often included in this category (education, certification/licensure, and experience) are considered primarily during teaching hiring processes.

**Teacher Tenure.** In Latin America, a teacher who is tenured (i.e., which occupies a formal position in the public sector) has job security and social benefits when retiring. Elsewhere, teacher tenure, which is sometimes called career status, provides job security for teachers who have successfully completed a probationary period. Laws pertaining to teacher tenure vary from country to country, but the overall spirit is the same.

**Teacher Performance.** Teacher performance includes such instructional basics as how well a teacher plans learning activities, maintains a positive classroom environment, communicates with students, and provides productive feedback.

**Teacher Effectiveness.** Teacher effectiveness can be considered the result of teacher performance. It encompasses a wide range of outcomes, including student learning.

**Teacher Incentives.** Teacher incentives are any form of financial support or provisions beyond the “normal” contractual salary agreement and employee benefits. The design of teacher incentive schemes belongs to 4 distinct groups: (1) individual merit pay; (2) group performance-based incentives; (3) competitive incentives; (4) automatic incentives.

**Individual Merit Pay.** Individual merit pay rewards individual teachers with pay bonuses that are based on particular outcomes or behaviors, such as improvements in student test scores.

**Teacher Evaluation.** Teacher evaluation assesses the professional knowledge of teachers using regular competency exams. Its orientation is based on the strengthening of the teachers’ careers, specifically to improve professional performance, and to contribute to the improvement of the learning competencies of the students.

**Intrinsic Teacher Motivation.** Intrinsic teacher motivation is about the importance they personally place on the tasks that they are undertaking. It is about the engagement and development of teachers’ interests and capabilities. When teachers are

intrinsically motivated, they are more likely to have the determination to complete a task or project, to approach new things creatively and to think flexibly about their work.

**Extrinsic Teacher Motivation.** Teachers can be motivated through such methods as pay, promotion, praise, etc. This kind of motivation stems from the work environment external to the task and is usually applied by others or someone other than the person being motivated.

**Resistance to Change.** Effective cognitive, and behavioral responses maintain the status quo, and aim to stop, delay or alter a proposed change.

## **Conclusion**

A general concern that public school teachers must be more accountable has provided the impetus for a variety of reforms in teacher evaluation in Latin America. Currently, teacher quality continues as a subject of political debate at local, state, and national levels. Evaluation of teacher quality and how to improve it have been two of the most complex educational and political challenges. Teachers resist being evaluated, complaining a lack of credible and fair systems for measuring the quality and effectiveness of their work and adequate measurement of teacher effectiveness for rewarding teachers on the basis of their performance. It is much less clear how financial incentives affect teacher performance and student achievement. This study is designed to address the underlying factors that contribute to Peruvian teachers' resistance to being evaluated and to merit pay plans. I will use different theories of organizational behavior motivation to analyze the complex relationships between educational authorities and teachers during the implementation of a new controversial evaluation policy.

## CHAPTER TWO

In this section, the relevant literature regarding teacher evaluation, merit pay, and teacher resistance is reviewed. The focus of this literature is on defining the theoretical knowledge for understanding the conditions and circumstances in which a new merit pay evaluation process has been implemented and intrinsic-motivation model of teacher behavior. This review is divided in three sections: (1) teacher quality and evaluation continues to be of one the most direct ways of social control; (2) the complexities of the inclusion of merit pay into teacher evaluation system; and (3) organizational behavior and motivation theories that explain teacher compliance or resistance to reforms.

### **Teacher Quality Reform, Social Control, and Assessment Practices**

The educational reform agenda in Latin American nations today is driven by a perceived lack of accountability (World Bank, 2006; World Bank, 2007a). Most education policies focus on assessments as one the means by which educational systems ensure that schools are accountable to society for the investment made in them (Mahinhey, 1998). *Social control* underlying the evaluative structure and processes promoting accountability represents the way societies select, classify, distribute, transmit and evaluate the educational knowledge. This method of social control is considered to be public, and reflects both the distribution of power and the principles of social control (Bernstein, 1977; Broadfoot, 1996). Broadfoot (as cited in Macpherson, 1998) stated that “the institution of formal evaluation procedures in education is instrumental in providing and selecting to fulfill specific roles in the division of labor within a particular society” (p. 94).

Assessments can take the form of deliberative and planned procedures of measurement through standardized tests, periodic school, district, state, and national examinations and formal evaluations by experts outside the school. They represent and involve particular institutional patterns of social control. Assessment procedures have at least three purposes: selection, certification, and (system) control. The *system control* provides data helpful in judging the quality of the system (Macpherson, 1998). Critics of the use of the assessments as social control contend that “assessment as a change agent is a risky business, because it is by definition judgmental” (Macpherson, 1998, p. 95). Change driven by an external group in authority has the power to exercise influence on teachers, and teachers have the capacity to respond to reforms by changing practices. Educational change driven by internal forces such as teachers’ motivation to embark in the changes process can give them the opportunity to achieve agreement about conflicting expectations for quality (Tyack & Cuban, 1995). According to Palamidessi and Legarralde (2006), the introduction of performance evaluation systems are perceived as control mechanisms which, in addition to establishing rewards and penalties, may undermine unionism’s social basis and hamper the aggregate demand for common interests.

### **Teacher Quality, Performance, and Effectiveness**

While much of the debate on teacher quality revolves around how to improve teacher quality, analysis of its definition has been lacking (Santiago, 2002; U.S. Department of Education, 1999). Defining teacher quality has been both problematic and elusive (Stodolsky, 1996; Liston et al., 2008). Public education defines teacher quality largely in

terms of the credentials that teachers have earned, rather than on the basis of the quality of the work they do in their classrooms or the results their students achieve. A U.S. Department of Education report (1999) emphasized the role of teacher preparation and qualifications in high-quality teaching. The report showed evidence that teacher qualifications provide important information about the quality of America's teachers. Based on several research studies that look at the impact of teacher quality, researchers have identified at least three observable features that characterized teacher quality: (a) teacher education (number of undergraduate or graduate courses completed in field of instruction, whether a teacher has a degree in field he/she teaches, and teachers' scores on national teacher examinations); (b) teacher certification status; (c) academic tested ability; (d) teaching experience; and (d) degree of in-service training (Santiago, 2002). Based on these identified characteristics, Santiago (2002) contended that it is hard to predict high quality teachers solely by considering these observable characteristics.

Within the larger context of the teacher accountability debate, three terms related to the discussion of teacher quality are *highly qualified teacher*, *effective teacher*, and *good teacher*. These focus on teacher characteristics or qualifications, teaching outcomes, and teaching practices, respectively (Liston et al., 2008). The National Commission on Teaching and America's Future and the National Board for Professional Teaching Standards defines teacher quality in terms of teachers' professional pedagogical knowledge and ability to use that knowledge in the classroom. On the other hand, the Fordham and Abel Foundations emphasize subject matter preparation instead of professional pedagogical knowledge.



Hinchey (2010) offers a clear distinction between *teacher quality*, *teacher performance*, and *teacher effectiveness*. The author defines *teacher quality* as teacher characteristics such as education, experience, and beliefs. *Teacher performance* is defined as what the teacher does, both inside and outside the classroom, and *teacher effectiveness* as the teacher's influence on student learning activities and includes elements such as student test scores and student motivation. Effective teachers are well educated in their subject area; they can communicate this knowledge well; and generally, they tend to be motivated and organized people. Teachers who have had strong academic preparation and have been certified to teach before entering the profession have been found to be more effective (Silva, 2009). Lesley, Gee, and Matthews (2010) have identified the intellectual characteristics of knowledge of content and life-long learning as key to quality teaching. They also identified such personal characteristics as being innovative, enthusiastic, caring, committed, flexible/adaptable, and having the ability to collaborate.

How to judge the performance of teachers depends on how teaching is conceptualized and the extent to which particular concepts of teaching are translated into evaluation criteria and standards. In the past, these criteria tended to be expressed as specific behavioral competences, but more recently broader and more comprehensive views of teaching are becoming the norm. These describe teachers in relation to their main spheres of action: planning, creating an adequate classroom environment, and teaching as directed to learning and professionalism. Qualitative examples of how standards and evaluation criteria can be embedded in a research-based concept of teaching are found in

Danielson's Framework for Teaching (1996), in the framework of teaching competences used in the province of Quebec, Canada and in the standards now being proposed by the Training and Development Agency in England. This does not mean, however, that qualitative measures based on effective teaching prescriptions do not oscillate between being highly prescriptive or excessively ambiguous (Peterson, 2000).

### **NCLB and Highly Qualified Teachers**

The U.S. federal law, No Child Left Behind (NCLB), defines highly qualified teacher as having the following qualifications: a bachelor's degree, a state teaching certification or a passing score on the state teacher licensing examination, and subject matter knowledge (Hess & Petrilli, 2006; Birman, Le Floch, Klekotva, Ludwig, Taylor, Walters, Wayne, Yoon, Vernez, Garet, & O'Day, 2007). Under NCLB highly qualified teacher is defined in terms of content knowledge and has intensified public education's culture of credentialism leading many states to rely on tests for what makes a qualified teacher (Wilson & Youngs, 2005; Selwyn, 2007; Toch & Rothman, 2008). NCLB also required states to set teaching standards and help teachers to improve their qualifications regardless of their highly qualified status. In 2006-2007, according to the *(2009) State and Local Implementation of the NCLB Act Volume VIII Teacher Quality Under NCLB: Final Report*, 94 percent of teachers met their states' requirements to be considered highly qualified (U.S. Department of Education, 2009).

In spite of these promising results, tangible results in teacher quality are scarce, and there is little evidence that these policies are driving the sort of changes needed to help schools recruit, train, place, induct, and compensate quality teachers or implement

changes that are aligned with broader human capital reforms efforts in education (Rotherham, 2008, 2009). For the first time, in 2009, Phase I of the Race to the Top (RTTT) stimulus application sets a narrow distinction between *effective teacher* and a *highly effective teacher*. Essentially, an *effective teacher* is a “teacher whose students achieve *acceptable* rates of student growth” and a *highly effective teacher* is a “teacher whose students achieve *high rates* of student growth” (U.S. Department of Education, 2009, p.12). In defining the problem of teacher quality, decision makers often use the poor academic achievement of students as an indicator that strongly correlates with teacher quality. *Effective* and *highly effective teachers* have been defined in terms of acceptable and high rates of student growth.

In the goal of ensuring that high-quality teacher are spread throughout a district, the reauthorization of the Elementary and Secondary Education Act, or ESEA (known as NCLB), tied funding to districts on the basis of equitable distribution of teachers throughout the district (National Council of Teacher Quality, 2010). Misunderstanding the distinctions between teacher quality, teacher performance, and teacher effectiveness has contributed to the development of narrow definitions about teaching. Policy makers generally contribute to this misunderstanding by considering a change in an indicator (poor academic achievement) to be a change in the state of a system (poor teacher quality). Interpretation of indicators can have serious implications, as a broader failure in student achievement can also be considered a failure in the educational system, with no consideration of context. Selwyn (2007) makes important remarks about the NCLB’s definition of a *highly qualified* and questions if we can quantify what makes a good

teacher. Teacher characteristics or qualifications, teaching outcomes, and teaching practices have been the most common criteria for defining teacher quality; however, NCLB's shift from a focus on qualifications to describe teacher quality to a focus on achievement outcomes does not reflect the complexity and multidimensional nature of the teaching profession (Liston et al., 2008).

### **Quantitative Teacher Quality Evaluation Systems**

Concomitant to the problem of qualitatively measured teacher quality has been the lack of a credible and fair system of quantitative measurement of the quality of teachers' work and of adequate measurement of teacher effectiveness for rewarding teachers on the basis of their performance. Researchers also agree that there is no simple way to evaluate teachers, and that the multiplicity of methods that exists does not capture the true nature of the teaching process ( Hinchey, 2010; National Council on Teacher Quality, 2009; OECD, 2009, 2011). According to the National Governors Association (NGA) Center for Best Practices (2002),

Teacher evaluation can be effective mechanisms for increasing student achieving and improving instructional practices, if the evaluations are connected with academic standards for students and professional standards for educators...developing state evaluations ensures consistency throughout a state and shows if teachers are meeting state academic goals (Curran, 2001)

Most forms of evaluation are justified either because diagnostic information is needed or because they provide evidence for decision making. The same is true for teacher performance evaluation. Thus, discussions, as shown in the literature on the topic (see for

example Millman & Darling-Hammond, 1990), have focused on whether teacher performance evaluation should have a predominantly formative character (provide information to guide the provision of teacher professional development) or a predominantly summative character (serve as an instrument for promotion or dismissal). Student test scores are taken as a central element of discussion, in relation to both of these purposes (Glass, 1990). In the U.S., a growing number of school districts have adopted a system called *value-added modeling*, with some saying it is an effective method for increasing teacher accountability. However, teachers resist using student test scores as a way of measuring teacher effectiveness in the classroom, with most opposing the idea of offering higher starting salaries in exchange for smaller pensions (Duffett, Farkas, Rotherdam, & Silva, 2009).

The second priority of the Race To The Top (RTTT) fund in the U.S. was to develop developing a teacher evaluation system that is linked to student achievement and performance. States, such as New York and Tennessee, are now considering plans that would give as much as 50% of the weight of teacher evaluation and compensation decisions to their students' scores on existing tests of basic skills in math and reading. Proponents say it would also treat teachers like the professionals that they are, by giving them the opportunity to earn larger salaries for excellent performance. Performance-pay advocates also claim that merit pay or performance pay based on students' scores is the most direct way to measure teacher performance (Toch & Rothman, 2008). However, opponents such as Bénabou and Tirole, (2003), Hinchey (2010), Rothstein, Jacobsen, and Wilder (2008) contended that, as the sole measure of teacher effectiveness, students' test

scores are inadequate. Hinchey questioned whether or not school districts have the data needed to set up fair measurement and evaluation systems. Issues such as the lack of assessments, data systems, and evaluation processes capable of capturing the complexity of teaching skills and their impact on student learning as well as the validity and reliability of test scores are the main constraints that concern policymakers in the process of linking student learning scores to teacher evaluation processes (Goldrick, 2002; Marszalek, Odom, LaNasa, & Adler, 2010).

### **Linking Teacher Evaluation to Students' Test Scores**

Educational researchers and analysts suggest that current standardized tests are the most accurate means of assessing student progress and teacher effectiveness. However, incorporating student learning into teacher evaluation has been one of the main challenges and a point of contention for policymakers over the last two decades. Researchers have been defining value-added methods, establishing an important statistical breakthrough in analyzing standardized test results for signs of student progress and teacher impact (Berry, 2010). School reformers have argued that value-added scores from these tests should be the primary metric for evaluating teachers and increasing accountability. Sanders and his associates used data from the Tennessee Value-Added Assessment System (TVAAS) database to run multivariate analyses of students who took the Tennessee Comprehensive Assessment Program Test. Sanders' findings suggested that teacher effectiveness is both additive and cumulative with little evidence of compensatory effects (Sanders, 1999; Sanders & Horn, 1994; Sanders & Rivers, 1996). However, current research data show that value-added systems for measuring teacher

effects do not always offer reliable measures for making high-stakes decisions (Berry, 2010). For example, as part of The New Era (TNE) research initiative at Stanford University and using a sample of approximately 250 secondary teachers and roughly 3,500 students taught by these teachers, Newton, Darling-Hammond, Haertel, and Thomas (2010) demonstrated that judgments of teacher effectiveness for a given teacher can vary substantially across statistical models, classes taught, and years. Furthermore, the authors showed that teachers who teach less advantaged students in a given course of year typically receive a lower effectiveness rating than the same teachers teaching more advantage students in a different year.

The process of defining *teacher effectiveness* requires using valid and reliable tools for assessing whether an individual teacher possesses these competencies. Thus, the debate over standards-based teacher performance continues. The U.S.'s National Teacher Association (NEA) President, Dennis Van Roekel, for instance, asked to the U.S. Secretary of Education for more clarification about the use of the teacher data systems, the Board on Testing and Assessment, a part of the National Research Council, warned against using single test, such the National Assessment of Education Progress (NAEP) to measure growth in student achievement. The Board on Testing and Assessment also suggested that the departments' plans to use student growth data to evaluate teachers could be premature (Maxwell, 2009).

### **Teacher Evaluation and Teacher Tests**

Many educational researches agree that a highly qualified teacher can do more than pass tests. Standardized assessments do provide fundamental and vital information

on teacher quality, but this is not a complete indicator of teacher quality. Goertz, Floden and O'Day (1996) and Wilson (2010) suggested that policymakers should recognize that teacher capacity is multidimensional, encompassing not only teachers' procedural knowledge and skills represented on teacher tests, but their dispositions to meet new standards and to make necessary changes in practice. Liston et al. (2008) pointed out the narrowness and drawbacks of most states' standardized tests in making hiring or retention decisions. They based their argument on the recent Aspen Institute Report, *Beyond NCLB* (Commission on No Child Left Behind, 2007) written to reauthorization of the law. Additionally, Liston et al. (2008) argued that putting too much emphasis on standardized testing for teachers is only trying to resolve part of the teacher quality problem.

### **Teacher Quality Evaluation and Latin America**

As discussed above, the traditional approach to public teacher management has emphasized credentials, seniority, job security— instead of quantitative measures of performance, merit, and accountability in Latin America and elsewhere. This *input-based approach* focused on qualifications to describe teacher quality instead of a more substantive teacher evaluation strategy such as performance-based teacher evaluation (Goldrick, 2002). Opponents of this approach emphasize the overly narrow focus on content preparation, and the imprecise nature of measures for each qualification (Liston et al., 2008). The first chapter demonstrated that since the 1990s, several countries in Latin America have implemented teacher accountability policies based on financial incentives to encourage teachers to improve student test scores (Vaillant & Rossel, 2006; Carnoy, 2008). Teacher quality evaluation policies based on incentives in Latin America



represent efforts to change the traditional approach to evaluate teachers, creating and improving standardized test scores (Vegas & Umansky, 2005). Notably, there is a paucity in the literature whether or not these reforms in Latin America have had their intended effect: motivating positive teacher behavior and improving student success.

**Teacher Compensation and Merit Pay in Latin America.** Teacher compensation is among the most widely discussed school reform initiatives in Latin America (Adams, Heywood, & Rothstein, 2009). Public school teachers are currently paid according to a uniform salary schedule that was first introduced in the 1920s. Research has consistently shown that the two components represented on the traditional salary schedule— level of teacher’s education and years of experience— have little if any bearing on teacher quality and subsequently student achievement (Crouch, 2005; Hernani-Limarino, 2005; Umansky, 2005; Vegas & Umansky 2005). Bolivia, Chile, and Mexico have established salary differentials for rewarding teachers working in the rural areas or have introduced salary structures that reward teachers for improved performance and student learning. With teacher compensation representing more than 80 percent of education expenditures, Peru has recently introduced a new policy to tie a portion of teacher compensation to teachers’ scores on regulatory competency exams. Research has found that teachers respond to incentives (Ballou, 2001; Ballou & Podgursky, 1997).

Education policymakers are assured that the quality of teaching can be improved by designing effective incentives that attract, retain, and motivate highly qualified teachers. However, researchers also have found that stronger incentives associated with tangible, quantitative measures of performance will not always lead teachers and students

to work harder. Opponents have worried that the emphasis on standardized teaching testing may lead teachers to ‘cheat on the test.’ Teachers in some cases respond adversely to incentives by reducing collaboration among teachers, excluding low-performing students from class, cheating on or manipulating the indicator on which rewards are based, decreasing the academic rigor of classes, or “teaching to the test” to the detriment of other subjects or skills.

The most common designs of teacher incentive schemes in Latin America are *individual merit pay* and *competitive incentives*, which reward individual teachers and groups of teachers respectively (Vegas, 2005). Umansky (2005) has stated that the success of incentives schemes depends on the employers’ ability to accurately determine and evaluate the desired behavior. However, a growing body of research has shown that individual financial rewards can be detrimental for employees’ intrinsic motivation to work, obscure the reasons for suboptimal performance, and harm the cooperative aspect of workers’ environment (Bénabou & Tirole, 2000, 2003; Holmstrom & Milgrom, 1991; Kohn, 1993).

As Latin America countries lack reliable and fair teacher evaluation systems, teachers’ incentives based on competency standardized tests are particularly vulnerable to corruption, such as teachers’ cheating on the tests. Cost associated with performance-based compensation also matter/present challenges. Developing and funding incentives sufficient to entice teachers to participate is the primary issue, but administrative costs are also a factor. Conley, Muncey, and You (2006) found that teachers’ career satisfaction is favorable when teachers have positive perceptions of evaluation and supervisory

behavior. Milanowski and Heneman (2001), using surveys and interviews, evaluated whether teachers (a) understood the evaluation system; (b) accepted the teacher standards; (c) perceived the standards and evaluation process as fair; (d) felt that evaluators conducted the evaluation in a satisfactory manner; and (e) felt that evaluation positively impacted their development as a teacher. The researchers found that the understandability, acceptability, and experiences with the actual evaluation were critical in influencing teachers' reactions to the system. In public schools, younger and less experienced teachers have higher levels of satisfaction than older and more experienced teachers do.

Educational sector reforms that include merit pay plans into career structures are seen by unions as a source of conflict because they increase the probability of unemployment, competition among their members, and higher level of control over their affiliates while threatening their political sustainability and forcing organizational adaptation. Researchers have demonstrated that the conditions influencing teachers' resistance or acceptance of reforms are related to their interaction with policymakers and to the context of such interaction. In "Pay-for-Performance Teacher Compensation: The Inside View of Denver's ProComp Plan," Gonring, Teske and Jupp (2008), based on unprecedented management collaboration, demonstrated how a compensation plan implementation would be the best scenario for the introduction of entrepreneurial behavior in collaboration with teachers' union and support from outside philanthropic groups. It is widely acknowledged that major conflicts around educational sector reforms arise due to perceived changes in payment mechanisms, such as those associated with

performance as a way to increase competition among union members, hindering internal solidarity while increasing the probability of lay-offs and uncertainty about teachers' income.

### **Theoretical Framework**

Latin American governments are experimenting with the introduction of merit pay plans linked to evaluation into the teacher career structure in an attempt to foster teacher quality, and thus student achievement. The impact of the government investment into teacher quality, resistance to evaluation reform and merit pay plans had been explored, with a focus on the causes driving opposition demonstrated by public school teachers. Critical questions that arise are what motivate teachers to resist or comply to such policy. Why do teachers resist evaluation?, Can extrinsic rewards (such as financial incentives) increase teacher motivation and, thus, quality?

The majority of published research on these issues is based on the interaction between intrinsic motivation and extrinsic rewards. An examination of education research literature has found that extrinsic rewards reduce and undermine intrinsic motivation (Deci, 1971; Deci, Koestner, & Ryan, 1999). Research, such as the works of social psychologists and humanistic researchers, began with the demonstration that extrinsic motivation can permanently undermine and have detrimental effects for employee intrinsic motivation and performance (Deci 1971; Lepper, Greene, & Nisbett, 1973; Kohn, 1993). In the public sector, extrinsic motivation factors, such monetary incentives and performance regulation, may have detrimental effects for employee intrinsic motivation and performance (Amabile, DeJong, & Lepper, 1976; Lepper & Greene,

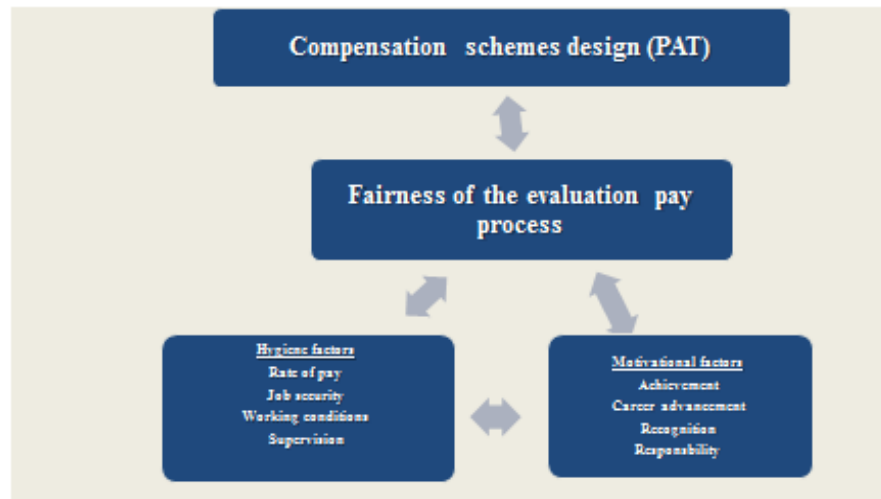
1975). Research has shown that this is not always true. Modern behaviorist researchers argue that offering extrinsic rewards has either negligible effects on intrinsic motivation and it could actually contribute to intrinsic motivation (Eisenberger & Cameron, 1996). Zuckerman, Porac, Lathin, Smith, and Deci (1978) reported that some contextual factors such as providing choice about aspects of task engagement tend to enhance feelings of autonomy, and thus, increase intrinsic motivation. Providing satisfactory explanations for the combined effects of extrinsic and intrinsic factors, researchers, such as Ryan and Deci (2000) and Frey and Jegen (2001), presented their motivational frameworks for facilitating versus undermining intrinsic motivation.

### ***A Multiple Framed Approach***

I used the *multiple-framed theoretical approach* to understand the role of teachers in policy change. Rather than relying on a single theoretical approach as traditional policy research does (Young, 1999), this study focused on an exploration and comprehensive understanding of teachers' reactions to evaluation through different lens. While a number of theories explaining policy changes, mostly based on the rational tradition, have evolved and matured in the public policy literature, they cannot offer a complete picture and explain the phenomena of policy change. At the same time, when taken alone, any single theory is limited in purview and knowledge, and fails to “provide a robust, dynamic, and multifaceted description of the policy context and problem (Forester, 1993; Hamilton, 1991, as cited in Young, 1999, p. 679). In addition, Young (1999) pointed out that using more than one theoretical approach may help us to “better understand the relationships among policy discourse, planning, implementation, and practice, the

dynamics of policy contexts; and the impact of policy and practice on individuals” (p. 679).

This was particularly noteworthy for this study. In order to achieve the goals of the study, motivational factors associated with compliance and resistance to evaluation and the distribution of rewards served as the basis for this study and led me to use three theoretical perspectives approaches. I used Principal-agent theory to explain how governments policy makers design compensation schemes to improve teacher quality and foster student achievement. Then, I used Procedural Justice Theory to analyze teachers’ reactions of compliance and resistance to the new policy. Finally, I used Herzberg’s Two Factor Theory to identify the factors that contribute to teacher’ motivation and their effect on their satisfaction or dissatisfaction. These analytical approaches related to the economic approach, organizational behavior and motivational theory (see Figure 2) which influenced my study in three different ways: (1) these theories serve as the basis for the design of the survey; (2) to organize the quantitative and qualitative data related to the survey and interview responses of teachers, during the data analysis phase; (3) to discuss research findings and interpret teachers’ reactions, considering the complexities of the context and the multi-layered nature of both the low level of teacher compliance and the high level of resistance to evaluation and merit pay plans.



*Figure 2. Conceptual framework*

**Principal-Agent (PAT).** As an economic theory, PAT is concerned with how principals, such as employers, design compensation structures to get agents, such as employees, to work in the principals' interest (Ross, 1973; World Bank, 2003). The process of providing incentives to workers, however, encompasses monitoring, evaluation, and control of workers who must demonstrate high levels of performance (Prendergast, 1999). Starting in the mid to late 1970s and 1980s, the view of incentives schemes emerged in management thinking that the primary role of corporate leadership was to maximize the interests of shareholders. In time, this rational view of fostering employee's motivation still enjoys considerable currency in policy design (World Bank, 2003). According to Umansky (as cited in Vegas, 2005), as principals' and agents' interests are frequently not aligned, "employers want high employee productivity and efficiency while employees want high compensation for little effort" (p. 22). One of the PAT's principles states that employers design schemes to motivate their employees to

behave in certain ways that employers believe will result in high productivity and efficiency. To what extent agents will alter their behaviors rely on the agent's degree of risk aversion, the assessment of the risk involved, and the desirability of the reward or aversion to the sanction (Baker, 2002; Prendergast, 1999).

Proponents of high-stakes testing argue that the stronger incentives associated with tangible, quantitative measures of performance will lead teachers and students to work harder. Opponents have worried that the emphasis on standardized tests will lead teachers to “teach to the test,” or cut out subjects such as social sciences to emphasize reading and mathematics. Given the importance of teacher quality for student learning, policy makers devote a great deal of attention to incentive schemes that can potentially increase the quality distribution of teachers. The main question of interest is whether monetary incentives for teachers lead to a more qualified teaching workforce. In the United States, as with many issues in education, the intensity of the debate over performance-based pay reflects the relative lack of clear evidence about its effects. One of the NCLB's strategies for capacity building, for example, is to provide teachers with incentives to improve their performance, knowledge, or skills. The incentive strategy requires the design and implementation of alternative teacher compensation systems that depart from the single salary schedule. Most of these new or proposed plans link pay to combinations of teacher performance, acquisition of new knowledge and skills, and student test score gains (Heneman, Milanowski, Kimball, & Odden, 2006).

Performance-pay advocates also claim that merit pay or performance pay based on students' scores is the most direct way to measure teacher performance (Toch &



Rothman, 2008; Rothman, 2009). Harris (2011) notes that value-added measures of school and teacher performance have many potentially positive uses, especially when combined with other measures that capture a broader range of educational goals and important instructional practices. Research also has found that merit may also increase teacher retention, particularly more experience teachers ( Jones, 2011). However, opponents such as Hinchey (2010) contends that, as the sole measure of teacher effectiveness, students' test scores are being used due to their convenience: statistical analysis is objective, simple, and unreliable. The author questions –do school districts have the data needed to set up fair measurement and evaluation systems for performance-based teacher payment. Given the large amount of funds dedicated to merit pay policymakers and researchers understandably want to know whether these programs improve student academic performance.

**Principal-Agent Theory vs. Intrinsic Motivation.** Since its inception, PAT has been highly criticized for its excessive reliance on financial incentives. Rooted in economic theory, PAT states that bonuses and stock options often improve performance. Research studies made by Gibbons (1997) and Lazear (2000) showed that there is a wealth of evidence that incentives can motivate higher levels of performance and productivity. Instead, opponents say, employers should pay greater attention to agents' intrinsic motivation (Bénabou & Tirole, 2000, 2003; Holmstrom & Milgron, 1991; Kohn, 1993). Contrary to the different perspectives posited by Principal-agent theory (PAT), social psychology researchers argued that intrinsic motivation is pivotal for work effort, and that extrinsic factors (such as performance regulation and economic incentives),

under particular conditions, can undermine intrinsic motivation (Lepper, Greene, & Nisbett, 1978; Deci, 1975; Deci, Koestner, & Ryan, 1999; Kruglanski, 1978). More research may be needed to tease out the implications of these findings for influencing individuals' intrinsic motivation by financial incentives. A study of paramount importance was carried out by Rynes, Gerhart, and Minette (2004).

In "The Importance of Pay in Employee Motivation: Discrepancies Between What People Say and What They Do" (2004), using major studies that attempted to determine the importance of pay to employees, relative to other potential motivators, the authors showed that pay is much more important in people's actual choices and behaviors and that people tended to over-report the importance of pay in employee surveys. Major studies in Rynes' et al. study found that, on average, individual financial incentives increase employee performance and productivity by 42% to 49%. This result showed strong evidence that pay was a powerful motivator of performance. But these gains come at a cost. One unintended consequence posited by Bénabou and Tirole (2003) is that extrinsic incentives damage individuals' perception of their own capabilities. Further extrinsic rewards undermine work interests (Kohn, 1993) and harm the congenial atmosphere of teachers' work (Murnane & Cohen, 1986). Vegas and Umansky (2005) posited that weaknesses in measurement and evaluation make incentives particularly vulnerable to employee manipulation. Firestone (1991) suggested that job enlargement is more likely than merit pay to improve teacher motivation. It also enriches teaching practice while merit pay standardized it.

Research that confirms these findings has been conducted by Amabile, Goldfarb, and Brackfield (1990) and McGraw (1978) who showed that contingent, tangible rewards and other extrinsic factors such as competition and evaluations can be detrimental to outcomes such as creativity, cognitive flexibility, and problem solving which have been found to be associated with intrinsic motivation. McGraw and McCullers (1979) found monetary rewards to decrease cognitive flexibility in problem solving, and Erez, Gopher and Arzi (1990) showed that monetary rewards decreased performance on a complex task with difficult goals. When financial rewards are based on performance, managers and employees doing the same jobs receive different levels of compensation. Numerous studies have shown that people judge the fairness of their pay not in absolute terms, but rather in terms of how it compares with the pay earned by peers. As a result, pay inequality can lead to frustration, jealousy, envy, disappointment and resentment. The bottom line is that financial incentives, by definition, create inequalities in pay that often undermine performance, collaboration and retention.

Numerous studies spearheaded by University of Rochester psychologists Edward Deci and Richard Ryan (2000) have shown that rewards often undermine our intrinsic motivation to work on interesting, challenging tasks, especially when they are announced in advance or delivered in a controlling manner. This means that instead of monetary incentives, policymakers should design teacher career structures that provide opportunities to make choices, develop skills, do work that matters, and build meaningful interpersonal connections. However, using rewards such as financial incentives to maximize intrinsic motivation may characterize teachers' behavior as the strategic

pursuit of self-interests. According to this theory, if teachers receive more compensation or harder sanctions will provide greater work effort. Teachers weigh the costs of complying certain mandated regulations against the rewards associated with their attainment. Under this approach, government authorities would induce teachers through monetary incentives or regulation in the form of regulatory competency tests to maximize their interests by striking an advantageous balance between rewards and performance.

**The Influence of Extrinsic Rewards on Intrinsic Teacher Motivation.** Before discussing the basic idea that rewards, and in particular monetary rewards, will impact on teacher motivation, it is important to consider that in countries which the lowest salaries for teachers, the fulfillment of teacher basic and psychological needs should be discussed at the outset. Humanistic and social psychological approaches focus on these needs frequently mentioned as “lower-order needs.” Extensive research has found that money is an important motivator for most people. According to Trank, Rynes, and Bretz (2002), status- and accomplishment-based signals are inextricably linked to relative pay. Rynes et al. (2004) suggested that pay is fundamental in obtaining virtually any level of the highest level of the motivational hierarchies, including social esteem and self-actualization of Maslow’s theory.

More satisfactory explanations for the combined effects of extrinsic and intrinsic factors on teachers’ motivation, have been given by social psychology researchers such as Ryan and Deci (2000), and Frey and Jegen (2001) who presented new perspectives for facilitating versus undermining intrinsic motivation. Ryan and Deci (2000) have established clear differences between *intrinsically motivated behaviors*, and *extrinsically*

*motivated behaviors*. They found that extrinsic rewards, such as money, had a negative effect on intrinsic motivation. However, when positive feedback and verbal reinforcement were used tended to have positive effect on intrinsic motivation. Frey and Jegen (2001) suggested that external intervention via monetary incentives or sanctions may undermine and under different identifiable conditions strengthen intrinsic motivation. If motivation comes from internal tendencies and can direct and motivate behavior with or without the presence of financial rewards or constraints in teachers' decisions for compliance or resistant will be examined with more detail in this section.

Before reviewing, important psychological theories, it is important to establish differences between the types of motivation: intrinsic motivation and extrinsic motivation. *Intrinsic motivation* is the “involves people doing an activity because they find it interesting and derive spontaneous satisfaction from the activity itself” (Gagne & Deci, 2005, p. 331). Intrinsic motivation is the motivation to behave or act in one's own interests or simply for the enjoyment of the activity itself (Hennessey & Amabile, 2005). *Extrinsic motivation* is a “construct that pertains whenever an activity is done in order to attain some separable outcomes” (Ryan, & Deci, 2000, p. 60). Before discussing the basic idea that rewards, and in particular monetary rewards, will impact on teacher motivation, it is important to consider that in countries which the lowest salaries for teachers, the fulfillment of teacher basic and psychological needs should be discussed at the outset. Humanistic and social psychological approaches focus on these needs frequently mentioned as “lower-order needs.” According to Trank, Rynes and Bretz (2002), status- and accomplishment-based signals are inextricably linked to relative pay. The

psychological functional differences between extrinsic and intrinsic motivation and how they interact and influenced each other in a continuum is informed by self-determination theory.

**Organizational Justice Theory.** Organizational justice refers to the study of individuals' perceptions of fairness in organizations. The extent to which employees perceive workplace procedures, interactions and outcomes as fair in nature (Baldwin, 2006; Greenberg, 1990; Lawrence, 2005; Poole, 2007). Greenberg (1987) and Tornblom (1990) differentiated between two types of organizational justice: distributive and procedural. Distributive justice concerns the "individuals' beliefs that they receive fair amounts of value work-related outcomes, such as pay and recognition" (Tornblom, 1990, p. 44). Fairness and equity in evaluation procedures, standards, and criteria that determine these work-related outcomes concerns the scope of procedural justice. Procedural justice research has resulted in overwhelming evidence that decision control (or the authority to make a decision) is an important contributor to perceptions of justice. In order to form judgments of procedural justice, Greenberg and Colquitt (2005) defined the following criterion: (1) voice in the making of decisions; (2) consistency in applying rules; (3) accuracy in the use of information; (4) opportunity to be heard; and (5) safeguards against bias. As teachers usually do not have a voice in the evaluation policy design, they are less likely to accept unfavorable outcomes as the results of unfair practices.

***Procedural Justice.*** Evaluation procedures' outcomes are affected by individuals' perceptions of organizational justice as a whole or by different factors thereof. Commonly cited outcomes affected by organizational justice include trust, performance,

job satisfaction, organizational commitment, organizational citizenship behaviors, counterproductive work behaviors, absenteeism, turnover, and emotional exhaustion. The relationship between trust and organizational justice perceptions is based on reciprocity. Trust in the organization is built from the employee's belief that since current organizational decisions are fair, future organizational decisions will be fair. The continuance of employee trust in the organization and the organization continuing to meet the employee's expectations of fairness creates the reciprocal relationship between trust and organizational justice (DeConick, 2010). Research has found that procedural justice is the strongest predictor of organizational trust (Hubbell & Chory-Assad, 2005; Cohen-Charash & Spector, 2001). A positive relationship between an employee and supervisor can lead to trust in the organization (Karriker & Williams, 2009).

In "Teacher Evaluation and Merit Pay: Legal Considerations, Practical Concerns" Dessander (2000) examined critical legal considerations and concerns that exist throughout the implementation of a merit pay evaluation process. Dessander pointed to the inherent complexity of designing system that are valid and reliable in terms of being able to consistently identify and reward the most effective teachers; how best to measure performance and over what time period, how to link pay with performance levels; and the size of the rewards and how to eliminate preferential treatment from the performance appraisal systems. Springer (2007) argued that some of these evaluation problems have been diminished by increased availability of longitudinal student-level test score data and by sophisticated value-added statistical methodologies. Teachers' reactions to evaluation in Peru continue to be one of the most critical issue that affects teacher quality reforms

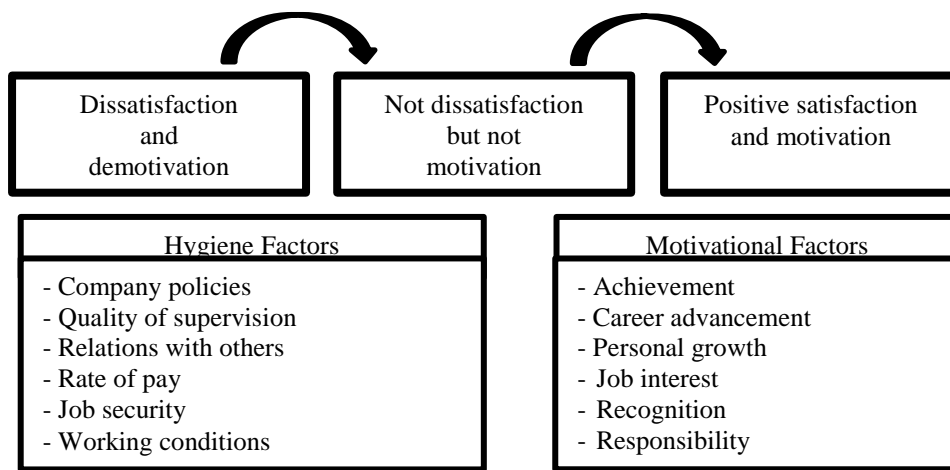
for the past and current government. The inclusion of merit pay plans into teacher evaluation systems, according to SUTEP (2012), has been seen as unfair and divisive, promoting competition that is counterproductive to a collaborative atmosphere and having a demoralizing effect on non-recipients. Due process procedures are the bricks for building a solid foundation of trust and fair play between the evaluator and the evaluated.

**Herzberg's Two-Factor Theory.** Herzberg (1966) theorized that there were two sets of factors that affected satisfaction and job performance. Herzberg's factors were a set of motivators and a set of hygiene factors. Herzberg argued that both set of factors were important, but the attention to the hygiene factors was important to prevent job dissatisfaction and attention to the motivators was important to increase job performance. Herzberg (1996) defined human motivation as a bipolar phenomenon. Figure 3 shows that, according to Herzberg, the motivation factors are the six job content factors that include achievement, recognition, work itself, responsibility, advancement, and possibility of growth. Hygiene factors are the job context' factors, which include company policy, supervision, relation with supervision, work conditions, relationship with peers, salary, personal life, relationship with subordinates, status, and job security (Ruthankoon & Ogunlana, 2003).

Basically the theory differentiates the factors between intrinsic motivators and extrinsic motivators. The intrinsic motivators, known as the job content factors, define things that the people actually do in their work; their responsibility and achievements. These factors are the ones that can contribute a great deal to the level of job satisfaction an employee feels at work. The job contexts factors, on the other hand, are the extrinsic



factors that someone as an employee does not have much control over; they relate more to the environment in which people work than the nature of the work itself (Schermerhon, 2003). Herzberg identified these factors as the sources for job dissatisfaction. Herzberg believed the factors causing satisfaction are different from those causing dissatisfaction, and the two feelings cannot simply be treated as opposites of one another. Intrinsic rewards, according to Herzberg, are more satisfying and motivating.



*Figure 3 . Herberz’g two-factor theory of motivation*

The Herzberg two-factor theory has been implemented in school systems in a variety of ways and seems to be well supported (Owens, 1998). In the school context, hygiene factors are job related factors that cannot, in themselves, motivate a worker; they can only prevent dissatisfaction (Daresh, 2001). Hygiene factors are generally described as tangible, extrinsic elements such as wages, fringe benefits, and working conditions. For teachers, this also includes supervision, merit pay and recognition of performance (Garrett, 1999; Pearson & Moomaw, 2005). Compensation has little association with satisfaction with teaching as a career while benefits show only a weak association with

satisfaction (National Center for Education Statistics, 1996). Overall, intrinsic rewards are much powerful for motivating teachers than are extrinsic rewards (Pearson & Moomaw, 2005). Intrinsic rewards, according to Herzberg, are more satisfying and motivating. More recent research (Frank, Bennet, & Kanfer, 2002; Sinclair, 2008) suggests that teacher intrinsic motivation and satisfaction is related to intrinsic concepts such student achievement, helping students to modify their attitudes and behavior, positive relationships with others, self-growth, mastery of professional skills, and feeling part of a collegial, supportive environment, and professional ethics.

The major sources of dissatisfaction are outside of the task of teaching children and working with other staff. These “dissatisfiers” are out of the control of teachers and schools, and are found within the wider domain of society, governments, and the employing body. The sources of dissatisfactions include the public poor opinion of the work of teachers, and their negative image in the media. Perie and Baker (1997) used the 1993-1994 Schools and Staffing Survey and discovered that, overall, secondary teachers as less satisfied than elementary school teachers. These authors also found that young teachers are more likely to be categorized as having high levels of satisfaction than older teachers.

Overall, workplace conditions relate more strongly with satisfaction. These include parental support, student behavior, principal interaction, staff recognition, teacher participation in school decision-making, influence over school policy, and control in the classroom (National Center for Education Statistics, 1996; Perie & Baker, 1997; Whiteford et al., 1990). Perie and Baker identified only a weak relationship with teacher

satisfaction and salary and benefits. According to Leithwood and McAdie (2007), salaries that are noticeably lower than those in other nearby districts have a particularly significant impact on teachers' feelings.

### **Professional Development and Professional Recognition.**

Research into professional development and its contribution to teacher quality has come to prominence in recent years (UNESCO, 2007; Phillips, 2008). Professional development encompasses all formal and informal learning, which enables teachers to improve their own practice (Ganser, 2000; Fielding & Schalock, 1985). Under this approach, professional development is viewed from a range of systematic activities to prepare teachers for their jobs, including initial training, induction courses, in-service training, and continuous development. This perspective is new to teaching. For years, the only form of professional development available for teachers in Latin America was teacher training or in-service training, usually consisting of workshops or short-term courses that would offer teachers new information on a particular area of the curriculum, but usually was unrelated to the teachers' work in the classroom. Ingvarson (1998) compared the traditional system of professional development, "in-service training" and the "standard-based system." In "in-service training" the government has control and establishes goals. Actors can be universities, employers or consultants, and the models used are usually short-term courses or workshops. In the standards-based system, the professional body of teachers has the control when deciding on goals and helping to implement the models based on real needs identified by the teachers in their daily activities. In contrast to the standardized system and in-service training, some proponents

have advocated locally developed measures to professional development with the potential to more accurately representing the professional needs of teachers (Birman, Desimore, Porter, & Garet, 2000).

Teacher training in Latin America is “thought to compensate for whatever they lack in terms of skills, motivation, or knowledge; and training is treated separately from the larger context of the classroom, school, community, teacher education programs, and career regulations” (Navarro & Verdisco, 2000, p. 3). Some of the problems in the teacher training found in Navarro & Verdisco’s report include weaknesses in pedagogic methods used to teach teachers, failures in the content of training, failures in the impact of training, and failures in integrating teacher training into the larger context of education policy and institutions. Alongside the limited opportunities for professional development, there is also a lack of opportunities for teachers to gain professional recognition. Some progress in this field has been made by Lawrence Ingvarson in “The Power of Professional Recognition” (1999), which showed how recognition can empower teachers and widen their involvement in professional leadership activities. The introduction of a national certification system is a highly relevant strategy for tackling the crisis in the teaching profession.

### **Teacher Unions and Meritocracy**

Teacher unions in Latin America have been playing a prominent role in determining the conditions under which teachers’ careers are regulated (Loyo, 2001; Palamidessi & Legarralde, 2006; Vaillant & Rossel, 2006). Teacher unions present significant differences in their capacity to negotiate teacher policy with national

governments (Centro de Estudios en Políticas Públicas, 2008; Eberts & Stone, 1987; Milkman, 1997). Chile and Mexico, for example, have strong, autonomous and politically commitment teacher unions to engage in social dialogue based on respect for the freedom of association principle, and on creating opportunities to build a national consensus. Teacher unions in Argentina, Brazil, Colombia, Costa Rica, Uruguay, and Peru are regarded as strong, autonomous, and having the technical capacity for social change but lack the political conditions to build consensus. Unions in these countries generally oppose teacher reforms resorting to confrontation and collective bargaining as the main tool for social changes.

In Honduras and El Salvador, teacher unions are weak or scattered with low technical capacity to conduct negotiation; scarce or no political will and commitment for social change; restricted freedom of association; limited conditions for consensus building; and little or no connection between unions, ministries, and the public opinion (Palamidessi & Legarralde, 2006). Using a psychological approach to understand the causes of resistance to change, Dent (1993) made a useful comparison of five current management books (Aldag & Stearns, 1991; Dubrin & Ireland, 1993; Griffin, 1993; Kreitner, 1992; Schermerhorn, 1989). The cited authors found that misunderstanding, lack of trust, threat to job status, work group breakup, fear of poor outcome, and uncertainty as the most causes of resistance. The same causes may be attributed to the resistance of teachers to quality reforms in Latin America. In Peru government-teacher union conflicts are frequent and pervasive (Diaz, 2003; Murrugarra, 2003; Rivero & Vexler, 2012). Two of the current polemical debates between these two parties concern

opposition to use of standardized testing to evaluate teachers and the inclusion of merit pay plans into the career ladders (Cuenca & Stojnic, 2008).

Some of the pressing challenges to governments is the unions' opposition to new reforms because of a lack of consultation before the reforms, unproven methods of teacher evaluation and changes in regulatory norms that may revert conditions previously obtained through union mediation or strengthened rights in exchange for wage cuts, without any offers for salary recovery; and disagreement over the introduction of performance evaluation systems perceived as control mechanisms which, in addition to establishing rewards and penalties, undermine unionism's social basis and hamper the aggregate demand for common interests. Further, teachers continue to reject the implementation of teacher evaluation systems based on regulatory competency exams (Benavides et al., 2007).

In addition, the discretion of the governments over teacher career regulations along with the political volatility in the region has contributed to the politicization of teacher quality reform. Long periods of discussion and negotiation between national governments and the teachers' unions are being held to try to devise what kind of teacher evaluation system should be implemented. The debate surrounding teachers' unions and the Peruvian government centers on the issue of teachers' and students' rights. On the one hand, Government contends that it is the state's responsibility to guarantee teaching of quality to the students and, on the other, SUTEP argues that teacher tenure is a teacher rights that cannot be violated (Cuenca & Stojnic, 2008).

Conclusion

Teacher evaluation has recently come under increasing debate. Governments in Latin America assign most teachers the minimum score, provide minimal feedback for improvement, and have little connection with teacher career ladders. Educational policy analysts argue that the nature of the problem of teachers' resistance to evaluation linked to merit pay plans can be better understood using Principal-agent theory, a strong framework for analyzing institutional arrangements governing the work of teachers. P-A theory proposes factors that determine whether or not paying teachers in relation to measures of performance improves teacher productivity.

It is widely acknowledged that major conflicts around educational sector reforms arise due to perceived changes in payment mechanisms, such as those associated with performance as a way to increase competition among union members, hindering internal solidarity while increasing the probability of lay-offs and uncertainty about teachers' income. In order to understand the motivational factors associated with compliance and resistance to evaluation and the distribution of rewards, I used Principal-agent Theory, Procedural Justice Theory, and Herzberg's Two-Factor Theory.

### **CHAPTER THREE**

Teacher evaluation systems based on regulatory competency exams and merit pay plans for teachers are increasing in popularity throughout Latin America. The purpose of this study is to examine the causes of teachers' resistance or compliance to a new law. As teachers' resistance to new policy comes mostly from teachers for whom the policy has the greatest impact, and particularly from teachers who see the policy as threatening their embedded assumptions about education, power, culture, and society, I will use a mixed-methods sequential explanatory approach to uncover how the new policy seriously interfere with organizational processes (Corey, 1995). I will combine two sources of data and mix methodology to explore teachers' reactions to evaluation and factors associated to compliance and resistance based on merit pay in Trujillo, Peru. This study's methodological approach combines quantitative research paradigms (postpositivist) and a qualitative approach (interpretative).

Because the complexity of teachers' resistance and compliance to a new law can also be determined by the social, ideological, and political conditions of contexts in which teachers work, the use of an integrated design was of paramount importance. This section includes: (a) research design and approach, (b) data sources and instruments; (c) setting, population, and sample; and (c) data collection and analysis for the quantitative and qualitative study. In addition, my role as the researcher in data collection analysis, and the measures taken for the protection of participants' rights, are summarized.

#### **Mixed Method Study**

The purpose of this mixed methods study was to collect, analyze, and mix quantitative and qualitative data in the exploration of the causes and factors influencing



teachers' compliance and resistance to a new policy. According to Creswell and Plano Clark (2010), mixed methods designs "are those that include at least one quantitative method (designed to collect numbers) and one qualitative method (designed to collect words), where neither type of method is inherently linked to any particular inquiry paradigm" (p. 2). In this study the priority is given to the qualitative aspects of the study. The *mixed-methods sequential explanatory* design implies collecting and analyzing quantitative and then qualitative data in two consecutive phases within one study. The rationale of deciding on the priority or weight given to the quantitative and qualitative data collection and analysis in the study, the sequence of the data collection and analysis, and how the quantitative and qualitative data were connected and integrated in the results were discussed in the next section.

Mixed-methods, as a methodology for conducting research, combines elements of qualitative and quantitative research approaches for the broad purposes of breadth and depth of understanding and corroboration (Johnson, Onwuegbuzie, & Turner, 2007). Mixed methods involve "collecting, analyzing, and mixing) quantitative and qualitative research in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2007, p. 5). This kind of methodology provides a better understanding of a research problem or issue than either research approach alone. As many researchers question what philosophical paradigm is the best foundation for mixed methods (Hanson, Creswell, Plano Clark,

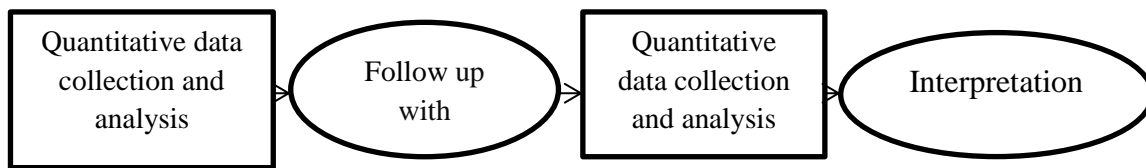
Petska, & Creswell, 2005), a growing body of research has acknowledged that the philosophical underpinning guiding the mixed-methods approach is *pragmatism*.

According to Tasahkkori and Teddlie (1998), the deconstructive nature (debunking of metaphysical concepts such as truth) of pragmatic philosophy gives a mixed methods researcher the opportunity to integrate different theoretical perspectives when interpreting data. Pragmatism represents a practical and applied research philosophy that allows a researcher to use a mixed design to the fullest, and to use the results in ways that can bring about positive consequences with the value system of the researcher (Tashakkori & Teddli, 1998). Qualitative research is by definition exploratory, and it is used when we don't know what to expect, to define the problem or develop an approach to the problem. It's also used to go deeper into issues of interest and explore nuances related to the problem at hand. Mixed methods research designs are particularly well suited to both the generalization of findings as well as the exploration of conditionalities of contexts. This practical and nuanced utility has attracted growing interest in educational research (Creswell & Plano Clark, 2007).

A straightforward sequence of mixed methods research includes: statement of the problem, statement of the purpose, formulation of the research questions and hypothesis, collection and analysis of the data pertinent to the hypothesis and research questions, and then the protocol for reporting the findings, using a written structure that best fits the research problem and methods. Greene, Caracelli, and Graham (1989) highlighted five major ones that might enhance the evaluation as follows: (1) *triangulation* tests the consistency of findings obtained through different instruments. In case studies, for

instance, triangulation will increase chances to control, or at least assess, some of the threats or multiple causes influencing our results; (2) *complementarity* clarifies and illustrates results from one method with the use of another method. In this study, in-depth interviews added information to clarify the study under question; (3) *definitions of subsequent methods* or steps in the research process; (4) *initiation* stimulates new research questions or challenges results obtained through one method. In our case, in-depth interviews with teachers and principals provided new insights on how the evaluation process has been perceived and valued across districts; (5) *expansion* provided richness and detail to the study exploring specific features of each method. In our case, integration of procedures mentioned above expanded the breadth of the study and likely enlighten the more general debate on teacher accountability, how to evaluate teachers and how to improve the teacher preparation programs.

**Explanatory Sequential Design.** Explanatory sequential design “consists of two distinct phases: quantitative followed by qualitative” (Ivankova, Creswell, & Stick, 2006, p. 5). In explanatory sequential design, the researcher starts with the collection and analysis of quantitative data, followed by the collection and analysis of qualitative data to help explain the initial quantitative results (Creswell & Plano Clark, 2010). The qualitative data are collected and analyzed second in the sequence and help explain, or elaborate on, the quantitative results obtained in the first phase. The rationale of this approach is that the quantitative data and their subsequent analysis provide a general understanding of the research problem.

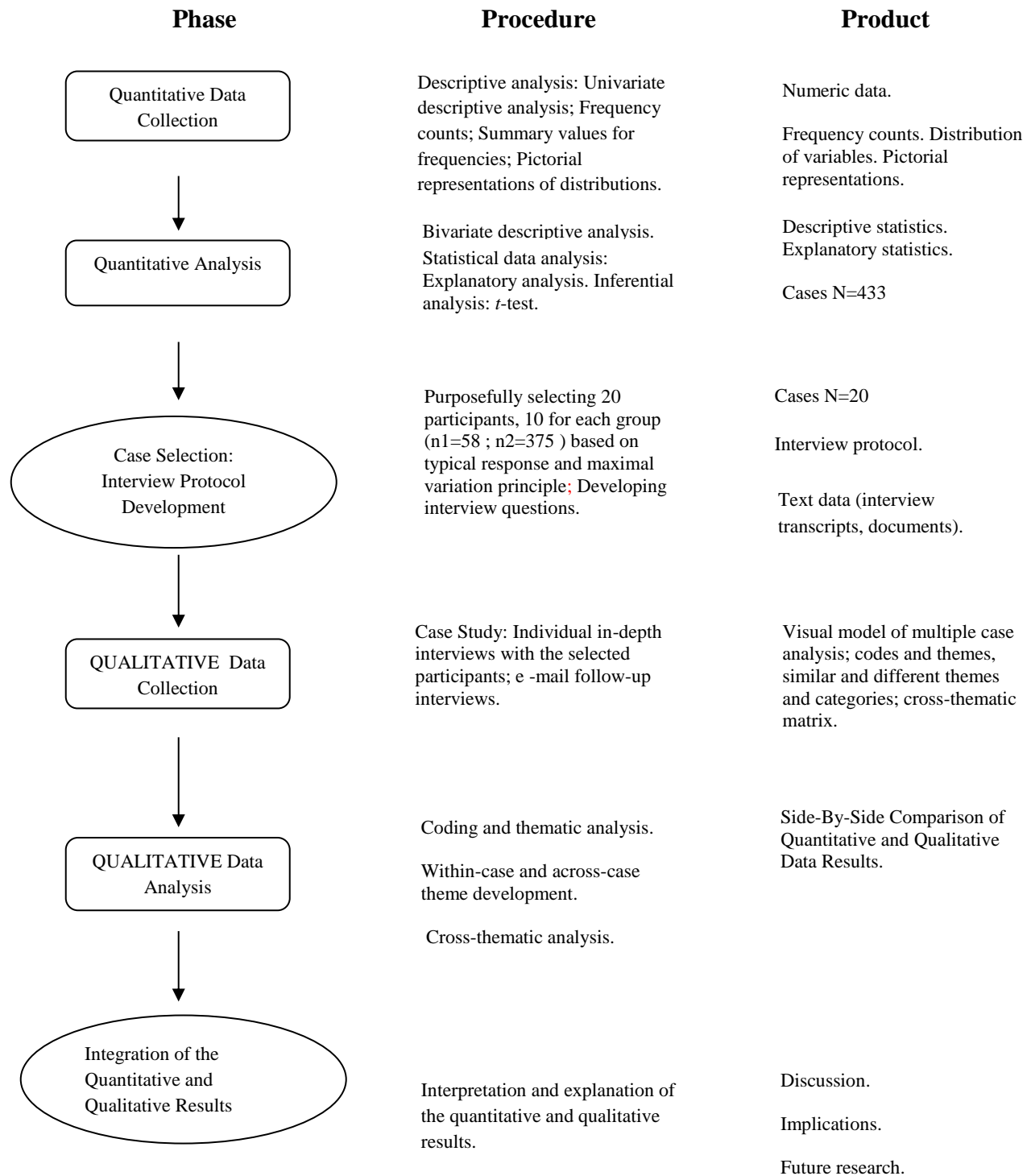


*Figure 4.* The explanatory sequential design

The qualitative data and their analysis then refine and explain those statistical results by exploring participants' views in more depth (Rossman & Wilson, 1985; Tashakkori & Teddlie, 1998; Creswell, 2002; Creswell, 2005). As the purpose of the present study is to identify factors contributing to teachers' decisions to take regulatory competency exams and the causes of teachers' resistance to evaluation, for the quantitative phase of the study, 58 teachers who took the formal examinations and 375 teachers who resisted the evaluation process were surveyed face-to-face. Then the qualitative phase of the study involved following up with 20 purposefully selected individuals, 10 for each group (compliant and resistant) to explore the circumstances and conditions in which the new teacher evaluation reform is being implemented, and to what extent the intended goals of the reform are being achieved.

The quantitative phase of the study was composed of two parts: First, descriptive statistics was used to answer research questions about teachers' perceptions regarding the purpose, contents, and the reliability of teacher evaluation tests as a means to evaluate teacher quality and the factors that contributed to teachers' compliance to the new evaluation process. Second, this quantitative phase was oriented to determine statistically significant differences in the importance assigned to certain variables (financial incentives, teachers' benefits and rights, teacher tenure, and financial costs of the law

implementation) between less experienced (under 20 years of experience) and more experienced teachers (over 20 years of experience). In the second, qualitative, phase, I conducted semi-structured interviews (Seidman, 1998; Spradley, 1980) and the selected case studies from each distinct group (compliant and resistant teachers) were explored, in depth, the results from the statistical tests. In this phase, the research questions addressed several internal and external factors contributing to teacher compliance and resistance to evaluation, found in the literature and in the quantitative phase of this study.



*Figure 5.* Visual model for mixed-methods (Sequential Explanatory Design Procedures) adapted from Ivankova, Creswell, and Stick, 2006.

## **The Role of the Researcher in Mixed Method Design**

The researcher who will conduct this study had been a practitioner of teacher training for 10 years for the public school system in Peru. For these 10 years the researcher held supervisory and training positions in public schools in the three regional areas of the country: the Coast, the Highlands, and the Jungle. As a supervisor of preschool and primary school teachers, the researcher used qualitative and quantitative personal profiles integrated with observations and discussions to assist primary school teachers with reflection on their practice. The researcher will consider the following philosophical assumptions:

1. Hidden personal and institutional sources of resistance to change such as teachers' different ideologies, institutional structures, political will and the state's lack of capacity to forge broader consensus at local, regional, and national levels that prevent teachers to be certified under the new law. Explanations of participant constructed realities will substantiate any bias during the study process.
2. The researcher used survey instruments that identify belief systems regarding: the purpose of the new law; the accuracy of the evaluation instruments, the fairness of the process, and bias suppression; factors contributing to teachers' compliance; and causes of resistance to the new law. Participant interviews will be conducted to identify belief systems, social contexts and in-service settings, and teachers' –perceptions about the new teacher career law.

3. Common collection data were not generalized to the population of in-service primary teachers, but it can explain why the subjects differed on the key variables. Data collected from the selected interviews were not generalized.
4. Due to the multifaceted nature of this research the researcher used abduction (uncovering and relying on the best set of explanations for interpreting results) as the primary logic of inquiry. Results from the survey were deductively analyzed and results from the interviews were analyzed inductively. Abduction was used to interpret the “mixing” of the quantitative and qualitative results. The data collection methods used in the qualitative research were dyads, in-depth interviews, and individual surveys. Quantitative research is conclusive in its purpose as it tries to quantify the problem and understand how prevalent its prevalence by looking for projectable results to a larger population.

### **Unit of Analysis**

The primary unit of analysis was the responses, insights, and perspectives of the teachers who participated in the study.

The study focused on the following units of analysis:

#### **(1) Teachers’ reactions and responses**

Compiled data and categorized responses were used to compare individual teachers’ responses across the data collecting setting. Data sources included individual surveys, document analysis, interviews, and cases studies.

#### **(2) Structures that cause teacher resistance**



Data were analyzed to identify long-term reactions and discover the meaning teachers assigned to their reactions to change. This analysis reflected teacher reactions about the structure of the evaluation system and the new teacher career. The examination of documents was especially important to this study in order to investigate patterns and trends from the past conflicts between the Peruvian government and teachers.

### **Research Procedures**

Two data analysis approaches were used: quantitative and qualitative. Statistical treatment of data from the research for this study involved the use of descriptive, explanatory and inferential analysis for quantitative reporting and a narrative description of the qualitative open-ended questions.

**Quantitative Instrumentation.** The goal of the quantitative phase was to identify teachers' general perceptions about a new evaluation process and the factors associated with teachers' compliance or resistance to the new law. In order to reach these goals, I used the Teacher Individual Survey.

***Teacher Individual Survey.*** The teacher survey consisted of 30 statements covering three main topics areas: general views about the evaluation process, factors that influenced teachers' compliance to evaluation, and causes or reasons of teachers' resistance to evaluation. Part I of the survey consisted of 10 items (Items 1 through 10) based on the Milanowski and Heneman's (2001) and Heneman and Milanowski's (2003) studies, in which teachers rate their performance, both through interviews and survey-based reactions of teachers to standard-based testing. Part II and III of the Survey

consisted of 20 items (Items 11 through 30). They were based on the regulations of the CPM available at Peru's Ministry of Education web site. It also includes a thorough review of the literature on teachers' reactions to performance appraisal.

**Research Question 1.** What are the teachers' perceptions and beliefs about the evaluation process as part of the new career structure for teachers in Peru?

To answer Question 1, I used the first ten items (items 1 through 10) of *The Teacher Evaluation Individual Survey* based on five-point Likert-type scales related to the evaluation process. Individual teachers' perceptions and expectations of the evaluation process were explored by items adapted from Milanowski and Heneman (2001) and Heneman and Milanowski (2003). Milanowski and Heneman's study survey instrument examined if teachers understood the evaluation process, accepted the evaluation procedure, perceived the evaluation process as fair, perceived evaluators in a satisfactory manner, and if they felt that the evaluation positively impacted their development as teachers. The four dimensions of the evaluation system were: characteristics of evaluation feedback, perceptions of fairness, and perceptions of evaluator qualifications. The criteria used by the authors in the study were procedural justice, distributive justice, utility, accuracy, session satisfaction-peer, session satisfaction-administrator, system satisfaction, stress, and effort (Heneman & Milanowski, 2003; Conley, Muncey, & You, 2006).

This survey was adapted based on information and recurrent topics that were revealed in the review of literature. Both groups (resistant and compliant) will be surveyed and asked to respond to questions about the teacher evaluation process in general by number selection using a Likert scale. The theoretical framework underlying these series of

questions is Procedural Justice Theory. According this theory, teachers will perceive the evaluation procedures as fair if they feel they had a voice or a sense of process control, and accept negative evaluation scores when they perceive the process of arriving at the decision was fair.

**Research Question 2.** What factors have had the greatest influence on teachers' compliance with the Ley de la Carrera Pública Magisterial ?

To answer Q2, I used Section II (items 21 through 30) of the Teacher Evaluation Survey whose core items based on five-point Likert-style scales are intended to identify teachers' main factors contributing to teachers' decisions to participate in the process of evaluation as part of the new teacher career law in Peru. The theoretical framework for these items was on Self-Determination Theory and Herzberg' Two-factor Theory. Specifically, within the Herzberg's Two-factor Theory, these questions were based on the following, factors: recognition, seniority, feedback and support, payment, and advancement.

**Research Question 3.** Of those teachers who are resisting evaluation, what are the most compelling reasons for those with more than 20 years of experience and those with less than 20 years of experience for such resistant behavior?

(3.1) Is there a significant difference in the importance of *financial incentives* based on teachers' competency exam scores related to their levels of experience?

(3.2) Is there a significant difference between the two groups in the importance of a reduction in *teachers' benefits and rights*?

(3.3) Is there a significant difference in the importance of ending *teacher tenure* as a cause of resistance?

(3.4) Is there a significant difference in the perceived importance of the *financial costs of the law implementation* and is it sustainable?

To answer Question 3, I used Section III (items 21 through 30) of the New Teacher Career Individual Survey which core items are based on six-point Likert-type scales. Herzberg's Two-Factor Theory served as the theoretical frame for these items. These variables are as follows: (1) salaries and fringe benefits; (2) professional advancement; (3) level of personal/ professional recognition; (4) teacher tenure; and (5) general working conditions (hours, class size, workload, etc.). The scale range of item on this Likert-type scale was 1-6 (1= not very important to 6=very important). Items of the Section III of the survey (Items 21 through 30) were organized using the following variables:

#### *Financial Incentives*

Items	
21	Salary increased based on teachers' score data based on competency exam scores.
25	Teachers' tests lack of validity and reliability.
27	Teachers test scores' don't reflect teachers' performance in the classroom.
29	Teacher financial incentives undermine teachers' collegial atmosphere and teachers' union membership.

#### *Benefits and Rights*

Items	
22	Ending teachers' rights and benefits (bonuses) and tenure-like job protections.
28	The law was signed without teachers' consultation and negotiation.

### *Teacher Tenure*

Items	
24	Teachers taking competence exams every three years.
26	Teachers failing the exam three times will be dismissed.

### *Financial Cost of the Law Implementation*

Items	
23	The financial costs of the law implementation and its sustainability in the long-term.
30	Principals, existing teachers, and parents will have something to say in teachers' hiring and promotion.

This section used the *t*-test to report the responses of 375 public school teachers in the city of Trujillo.

***t*-Test.** The research hypotheses were not stated as directional or non-directional, but in null form. That is, the prediction is that there are no statistically significant differences between the means of the groups. The null hypothesis was evaluated via a two-tailed *t*-test. The null hypothesis was:

$$H_0: \text{Mean}_1 - \text{Mean}_2$$

$$H_0: \text{Mean}_1 - \text{Mean}_2 = 0$$

The alternative hypothesis was nondirectional and predicted that there would be a difference between the two means, but the direction of the outcome was not specified.

$$H_1: \text{Mean}_1 \neq \text{Mean}_2$$

In order to calculate the  $t$  test value, the mean for each group, according to the established variables (financial incentives, teacher rights and benefits and rights, teacher tenure, and the financial cost of law implementation), was obtained.

**Qualitative Instrumentation.** As a follow-up to statistical inquiry, this study presented instances where statistical enquiries present findings that need further explanations and more detail about the phenomena is needed. According to Ritchie and Lewis (2009), qualitative research may be used as a follow-up to a survey to provide a greater understanding of the factors underlying a problem. Therefore, to answer the research questions Q4 and Q5, teacher interviews were used.

**Teacher Interviews.** Because the goal of the second, qualitative, phase of the study is to explore and elaborate on the results from the first, quantitative, phase of the study, this study used semi-structured interview to understand underlying factors or causes to teachers' compliance or resistance to evaluation. Thus, for teachers who have been certified by the new law and teachers who haven't, open-ended questions in the interview protocol explored the role of the four factors (financial incentives based teachers' competency exam scores, teachers' benefits and rights, teacher tenure, and financial costs of the law and its sustainability) in relation to any statistical difference found in the first, quantitative, stage of this study.

The researcher conducted qualitative analysis on the open-ended questions of the Teacher Evaluation Individual Survey Instrument in the following sequence:

(a) all narrative responses to the open-ended questions were read in order to get an overall picture of the responses and their emerging themes,

(b) the researcher identified the primary themes that emerged,

(c) the researcher then reread the data and coded them by theme,

(d) the data was read again by each theme,

(e) themes that have emerged within and among the primary themes were identified as cross-categorical themes,

(f) themes were analyzed as they relate to the research questions,

(g) the researcher summarized all the qualitative data into like themes and defined in a narrative qualitative format.

In order to answer to Research Question 4 (What are the circumstances and conditions under which compliance and resistance to a new law occurs in Peru? ) and Research Question 5 (What is the impact of teacher resistance to evaluation in schools? How does teacher resistance affect the goals of reform?) I used a multiple case study approach (Yin, 2003) to help explain why certain factors, tested in the first phase of this study, are significant or not significant predictors of teachers' compliance or resistance to the new law. A case study is an exploration of a bounded system or a case over time through detailed, in-depth data collection involving multiple sources of information and rich in context (Merriam, 1998). A multiple case study design includes more than one case study, and the analysis is performed at two levels: within each case and across the cases (Stake, 1995; Yin, 2003). The criterion for selecting participants for the case study was the maximal variation sampling strategy (Creswell, 2005). For this purpose, I deliberately selected 20 participants, 10 for each group (resistant and compliant teachers), from those

who complete the Individual Teacher Evaluation Survey. As main sources for collecting data, I used:

- (1) in-depth or unstructured interviews;
- (2) researcher's reflection notes on each participant's compliance or resistance to the new law, recorded immediately after the interview;
- (3) electronic follow-up interviews with each participant to secure additional information on emerging themes; and
- (4) participants' responses to the open-ended and multiple-choice questions on the survey in the first, quantitative phase.

**Integrative Instrumentation.** I connected quantitative and qualitative phases during the intermediate stage in the research process while selecting the participants for the qualitative cases studies from those who responded to the Teacher Evaluation Individual Survey. The second connecting point included developing the interview questions for the qualitative data collection based on the results of the quantitative phase. Survey and questionnaire instrument are the most common forms of data collection in descriptive research (Commonwealth of Learning, 2004). The use of a questionnaire is time efficient, cost effective and allows for data collection from a much larger population. Surveys must do more than merely uncover data; they must interpret, synthesize, and integrate these in data in relation to the problem and point to their implications and interrelationships.

**Survey Validity.** For content validity, the survey was reviewed by a minimum of five practicing public school teachers, current public school administrators, and graduate



professors at Cesar Vallejo University in Trujillo, Peru for comments and editing before field-testing was conducted. The panel of experts was asked to review the final survey to determine if, in their expert judgment, the instrument measured what it was intended to measure. Only after validity and reliability were determined was the instrument employed in the study. Field-testing was conducted in two stages. An initial version of the survey was piloted with 10 teachers (5 certified and 5 not certified). The first field test group completed a paper copy of the survey (see Appendix A). Needed adjustments were made regarding the purpose of the survey and contents of the questions. Teachers at three schools in Víctor Larco district participated in the initial paper version of the field test and a sample of thirty teachers participated in final testing of the survey. No teachers involved in the field-testing were a part of the sample in the final study. In the first version of the survey, respondents had the opportunity to give comments and suggestions. Responses and comments to the survey were analyzed to whether the instrument achieved the intended purpose. Results from the first tests were compared to the second to determine whether results were substantially similar.

### **Setting, Population and Sample**

The study took place in the city of Trujillo in northwestern Peru. Trujillo city is the capital of the province of Trujillo, and is the third largest city in the country. Trujillo is located in the region of La Libertad. The Region of La Libertad<sup>8</sup> is divided into 12 provinces: Trujillo, Sánchez Carrión, Ascope, Pacasmayo, Chepén, Pataz, Otuzco, Santiago de Chuco, Virú, Julcán, Gran Chimú, and Bolívar (Figure 6).

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<sup>8</sup> La Libertad is the third-most populated region in Peru since the census in 2007, and the number of inhabitants was 1 617, 050 in that year representing 5.9 % of the Peruvian population.



*Figure 6. The Region of La Libertad and Provinces.*

The educational governing entity for the region of La Libertad is the Gerencia Regional de Educación de La Libertad (GRELL). La Libertad has 3,670 schools, of these, 2,309 fit the criteria to be classified as urban under the 2011 National School Census (GRELL, 2012). According to the GRELL (2012), La Libertad had an enrollment of approximately 349,948 students (see Table 4). There are approximately 18,225 teachers and the majority of them work in urban areas where social and economic conditions are better. Teachers who work in rural schools tend to be those who scored lower on their teacher certification exams. The Ministry of Education of Peru (MED) provides incentive packages primarily to attract teachers to rural areas (MED, 2012). This disparity starts at hiring and worsens year after year, as the more qualified teachers leave for better schools.

**Table 4*****La Libertad's School Population by Area***

	Total	Rural		Urban	
		<i>N</i>	%	<i>N</i>	%
Schools	3670	1361	37.1	2309	62.9
Students	349498	102107	29.2	247391	70.8
Teachers	18225	5955	32.7	12270	67.3

Source: School Census 2011-GRELL

**The Public School System of the City of Trujillo.** According to the Institute of National Statistics and Informatics (INEI), in 2012, the city of Trujillo had a population of 765,495 people and was Peru's third largest city. Trujillo is the most important economic center of northern Peru. It is an inland commercial and transport center for the surrounding farming areas. The Local Education Management Unit (Unidad de Gestión Educativa Local, UGEL) is the only educational entity in the province. The UGEL Trujillo consists of 1,524 schools. The district of Trujillo serves approximately 21,000 students, and it employs 13,553 teachers in 1,524 schools (see Table 5).

**Table 5*****Number of Schools, Students, and Teachers in UGEL Trujillo***

UGEL	Number of schools	Number of students	Number of teachers
Trujillo	1,524	21,5905	13,553

Source: Gerencia Regional de Educación de la Libertad, 2008.

The sample was selected to answer the research questions and was based on the number of teachers working in the province of Trujillo in La Libertad region in Peru. In 2008, the statistic unit of the Ministry of Education of Peru reported that the 1,524 schools of Trujillo served a population of 215,905 students. The number of teachers

working in the province of Trujillo during that year was 13,553 (Gerencia Regional de la La Libertad, 2008), the highest in the region of La Libertad. Figure 7 shows the geographic categorization of the province of Trujillo based on districts.



*Figure 7. Province of Trujillo and Districts*

The population of public school teachers was 7,750, which was taken from the total number of teachers of the UGEL Trujillo (13,553 both public and private school teachers). The target population for this study (7,750) fell into two different identifiable groups: 1,860 teachers who participate in the teacher evaluation process, of whom only 660 reach the minimum score through regulatory competency exams and are therefore certified by the new law Ley de la Carrera Pública Magisterial, and 1,200 teachers who failed the exam; and 5,950 teachers who have resisted to take formal examinations since 2007. Due to the geographical distribution of teachers to the new evaluation process, and taking into account that not all the teachers who took regulatory competency exams (1,860) passed the test (only 660, this represent 8.51 percent of 7,750 teachers), a *convenience sampling* (Bogdan & Biklin, 1982) was used in this study.

Four high schools were selected in order to obtain a set of schools that was as similar as possible on school demographic characteristics such as socioeconomic status indicators. Schools were also selected based on their accessibility to the researcher owing to her geographic location and prior professional experience. Four hundred and sixty-four teachers were invited to respond to survey questions designed to uncover factors and causes associated with teachers' compliance and resistance to the new law process in Peru. The basic structure of population distribution is as follows: veteran teachers are in their fifties. Young teachers are in their thirties. The percentage of female schoolteachers is 51.2%. The percentage of male teachers is 48.7%. All teachers belong to the Latino population and they are healthy in average.

**Table 6**

<i>Teachers' Sample of Schools</i>	
Schools	Total of teachers
School 1	100
School 2	132
School 3	130
School 4	104
Total	464

The number of years of teaching experience, gender, and levels of education in both groups will be also considered for the analysis of the data. For the quantitative phase of the study, 58 teachers who took the formal examinations and 375 teachers who resisted the evaluation process were surveyed face-to-face. Then the qualitative phase of the study involved following up with 20 purposefully selected individuals, 10 for each group (compliant and resistant) to explore the circumstances and conditions in which the new

teacher evaluation reform is being implemented, and to what extent the intended goals of the reform are being achieved.

- 1) The first school for this study was one of oldest schools in the urban area of Trujillo. School 1, a large school serving over 1,500 students (GRELL, 2012), was founded in 1,908. School 1 serves male students from the surrounding districts of Trujillo, and the parents belong to the working class neighborhood of Trujillo. The majority of the students' parents are self-employed or dependent employees with a salary of S/. 1,500 to S/. 2,000 (\$ 576 to \$ 769) soles per month.
- 2) As a public school, School 2, is similar to School 1 in serving student populations with the same demographic characteristics. It is a large school serving nearly 2,500 students (GRELL, 2012). It was built in 1912 and was remodeled in 2011 by the central government. In contrast to School 1, School 2 is located in the surrounding area of the City of Trujillo. There were about 132 teachers.
- 3) School 3, the third school in my study, is located within urban Trujillo. It serves approximately 1,800 students with 130 classroom teachers. The school is currently engaged in a comprehensive teacher professional development delivered by the Ministry of Education.
- 4) The final school in my study, School 4, is located in a surrounding area of Trujillo and serves a 1,400 female student population. Teachers at this school,

which number is 104, are relatively younger in comparison to the teachers of the other schools that composed the sample of this study.

### **Limitations**

First, the number of teachers who were certified by the new CPM differed greatly from the number of teachers who resisted the new law. The selected groups of teachers who belong to different 4 schools did not have the same number of teachers. Though we can learn about teachers' beliefs, perceptions and reasons for compliance or resistance in a specific province of the coastal region of Peru, results will not be perfectly applicable to the other regions of the country like the Highland area, where the teachers' union has exerted more influence than in the coastal areas. This limitation is critical because the specific context in which teachers work is crucial to understanding the particularities and commonalities that influence teacher decisions to make life-changing career decisions. Second, the teachers' union (SUTEP) exerts strong influence on teachers' decisions for being certified or not. We cannot assume with a high level of certainty that teacher decisions to be certified or not are based on personal beliefs or professional expectations about a new law intended to improve the teacher career ladder. Finally, although the study, in the quantitative phase, used a *convenience sample*, teacher participation in this study was voluntary. In order to avoid validity concerns extended time and repeated interviews in research site were used.

## **CHAPTER FOUR**

What are the causes of teachers' resistance to evaluation? The goal of this study was (1) to determine the perceptions and beliefs about a new evaluation process; (2) to identify factors causing compliance and resistance to the introduction of a system of evaluation-based pay plans into the teacher career ladder. Specifically, this chapter presents and analyzes the data that were collected in a manner consistent with the methodology described in Chapter III. The participants in this study completed a 30-item Likert-type individual survey. Section I, the first 10 items of the survey, were based on Milanowski and Heneman's (2001) and Heneman and Milanowski's (2003) studies survey. Section II and III of the survey, (items 11 through 30) were developed by the principal investigator of this study based on the regulations of the New Teacher Career Laws in Peru and on the literature. A field test was performed to assess the legitimacy of the entire survey.

As this chapter will illustrate, the analyses produced mixed results, which suggest that Peruvian teachers' perceptions of evaluation are negative in general. Sixty-eight percent of respondents to the survey indicated that the evaluation process did not reach its goal— to identify the “best teachers.” However, the same percentage of teachers (68%) agreed with the teacher appraisal system as motivating teachers to work hard and improve teacher performance. The most influential factors that contributed to general compliance are related to the professional recognition of teachers' qualifications and experience. The results show significant variation between resistance shown by more or less experienced teachers when measuring how important a given issue is.



The findings presented in this chapter have brought into focus the complexity of factors associated with teachers' resistance. This chapter is organized as follows: first, descriptive results of Question 1 and 2. Next, *t*-test analyses of independent samples to determine whether differences between less and more experienced teachers (over-20 and under-20 years of experience) are statistically significant. Special focus was placed on significant differences in the level of importance assigned to financial incentives based on teachers' competency scores, benefits and rights, ending tenure, and the financial costs of the implementation of the law. Statistical significance of each hypothesis was evaluated. Next the results of a more focused analysis to further untangle the relationships, using a critical value of  $p < .05$ . Finally, integrated results of the quantitative and the qualitative phases are presented.

### **Survey Respondents**

The study identified the perceptions and beliefs of public school teachers regarding a new teacher evaluation process which links merit pay plans to a career ladder. A *convenience sample* was used as a method of investigation. Four urban schools were selected and participation resulted in 433 completed teacher surveys, a participation rate of 92 percent. The instrument contained 30 Likert-items divided in three sections designed to respond to each of the research questions. Teachers were asked to express their level of agreement with the statements about what motivates their compliance and resistance to evaluation and merit pay plans.

**Survey Reliability.** The reliability estimates of the survey items were determined using two methods: Cronbach's coefficient alpha and item-to-total correlations.

***Cronbach's Coefficient Alpha.*** Coefficient alpha measures how well items or variables that measure a similar trait or concept correlate with each other, which is considered by researchers to provide good reliability in most situations (Ravid, 2011; Blaikie, 2003; DeVellis, 2003). To obtain Cronbach's coefficient alpha estimates as well as improve survey reliability, the instrument was divided in three sections: Section I, teachers' perceptions of the evaluation process; Section II, factors contributing to teachers' compliance to the new policy; and Section III, causes of teachers' resistance to evaluation. The coefficient alpha reliabilities for each section of the survey are presented in Table 7. The results show high *alpha* values indicating a high level of consistency in of each the three categories.

**Table 7**

<b><i>Cronbach's Coefficient Alpha Test Values</i></b>	
Number of items	Coefficient alpha
Section I	0.82
10 Items (from 1 to 10)	
Section II	0.88
10 Items (from 11 to 20)	
Section III	0.73
10 Items (from 21 to 30)	

***Item-to-total correlations.*** In this procedure, the distribution of responses to each item is correlated with the distribution of the total scores of the responses to all 30 items. It was assumed that the items all measure the same thing (Blaikie, 2003; Ravid, 2011). For the analysis of the items, the criterion used was a correlation coefficient of less than 0.30 between any item and the total score needs to be examined. Data were processed using the statistical package software SPSS 18.

**Section I of the survey.** Table 8 shows that the Section I of the survey are higher than 0.30. The first 10 items of the survey correlate with the distribution of the total scores of the responses considered valid for the study. Deletion of any of these 10 items would not have caused significant variation in the Cronbach's coefficient alpha (0.84).

**Table 8**

***Reliability and Commonalities of 10 Items (Section I of the Survey)***

Items	<i>Mdn</i> if item is deleted	Variance if item is deleted	Item-to-total correlation	Alpha if item deleted
1	24.8056	47.025	.623	.821
2	23.8356	49.975	.495	.833
3	24.5972	49.383	.551	.829
4	24.6065	47.548	.533	.830
5	24.6088	48.684	.493	.834
6	23.3380	50.428	.399	.842
7	24.4954	47.926	.576	.826
8	24.6690	50.125	.512	.832
9	24.6111	49.473	.521	.831
10	23.9329	44.406	.703	.812

**Section II of the survey.** Table 10 shows that item correlations for Section II of the survey are higher than 0.30. The higher correlations between responses of items 11 to 20 of the survey compared to the distribution of the total scores of the responses to all 10 items showed that the items were valid for the study. The Cronbach's coefficient alpha (0.88) would not have suffered significant variation with removal of any item.

**Table 9*****Reliability and Commonalities of 10 Items (Section II of the Survey)***

Items	<i>Mdn</i> if item is deleted	Variance if item is deleted	Item-to-total correlation	Alpha if item deleted
11	33.9138	49.729	.607	.874
12	33.9828	47.035	.702	.866
13	34.1034	50.340	.624	.873
14	33.8793	52.003	.505	.881
15	33.4310	51.934	.578	.876
16	33.4310	55.688	.379	.887
17	34.1207	46.880	.665	.870
18	33.6207	48.345	.704	.866
19	33.9655	47.227	.742	.863
20	33.6724	50.294	.634	.872

***Section III of the survey.*** When looking at the total correlation for the items 21 through 30 of Section III of the Survey, Table 10 shows a low correlation coefficient between item 30 and the total score which suggests two things: (1) item 30 was measuring some other variable; or (2) the item itself is unreliable and that could have led to different interpretations and, thus, inconsistent responses. Cronbach's coefficient alpha generally increase as the correlations among test items increase, but in this case the average correlation was not affected, so it was decided to keep the item in the survey.

**Table 10*****Reliability and Commonalities of 10 Items (Section III of the Survey)***

Items	<i>Mdn</i> if item is deleted	Variance if item is deleted	Item-to-total correlation	Alpha if item deleted
21	31.0853	48.319	.312	.725
22	30.1787	46.511	.395	.713
23	30.2160	45.448	.449	.704
24	30.3680	46.062	.432	.707
25	30.7227	46.393	.369	.717
26	30.4187	42.335	.523	.690
27	30.7893	47.418	.391	.713
28	30.3093	47.000	.391	.713
29	30.6613	47.497	.396	.713
30	30.6507	48.447	.274	.731

**Descriptive Statistics**

Of the 464 teachers invited to participate in the survey, 433 (92%) actually did so. Table 11 shows the number of teachers of each selected school and the number of survey respondents. All teachers were invited to participate and the survey respondent rate was 92 percent. The four schools selected for this study have a large number of teachers and are considered as traditional, emblematic, and as having the highest number of teachers who oppose to school reforms in the city. Schools 2 and 3 represent the schools that have the largest number of teachers with 132 and 130 teachers respectively.

**Table 11*****Study Population and Level of Response Overview***

Schools	Total of teachers	Number of survey respondents	%
School 1	100	92	92
School 2	132	118	89.3
School 3	130	121	93.1
School 4	108	102	94.4
Total	464	433	

Table 12 presents the frequencies of each of the variables of the study. As a whole, the largest group was the resistant teachers who made up 87% of the total sample of teachers (433). Two hundred and twenty- two (51%) of the teachers were female and two hundred and eleven (49%) were male. Of the 375 (87%) who were categorized as “resistant” for the purpose of this study, 248 (66%) were experienced or veteran teachers with over 20 years of experience and 127 with fewer than 20 years of experience.

**Table 12**

***Frequencies of Demographic Data***

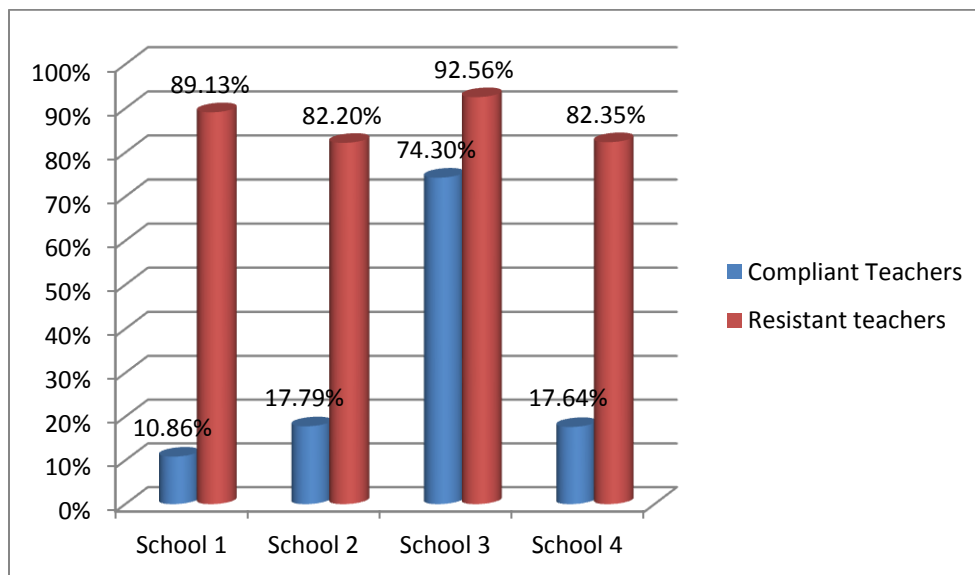
Variable	<i>f</i>	%
Teachers	433	92
Males	211	49
Females	222	51
Compliant teachers	58	13
Resistant teachers	375	87
Less experienced resistant teachers	127	34
More experienced resistant teachers	248	66

The 433 teachers who answered the survey ranged in age from 24 to 69 years. Their median age was 50 and they have taught from 10 to 33 years. Although respondents were not asked about their age in years, age of people is public through the Accreditation link of El Seguro Social del Peru (ESSALUD)’s website, one of the health public entities of Peru. Teachers ranged in age from 28 to 67. Responses rates from each school were high (94% in School 4), as can be seen in Table 13.

**Table 13**

<i>Study Survey Respondents</i>			
Schools	Number of survey respondents	Compliant teachers	Resistant teachers
School 1	92	10	82
School 2	118	21	97
School 3	121	9	112
School 4	102	18	84
Total	433	58	375

Specifically, Figure 8 shows that the number of resistant teachers surpassed the number of compliant teachers. It should therefore come as little surprise that the school systems face particular difficulties implementing teacher evaluation policy.



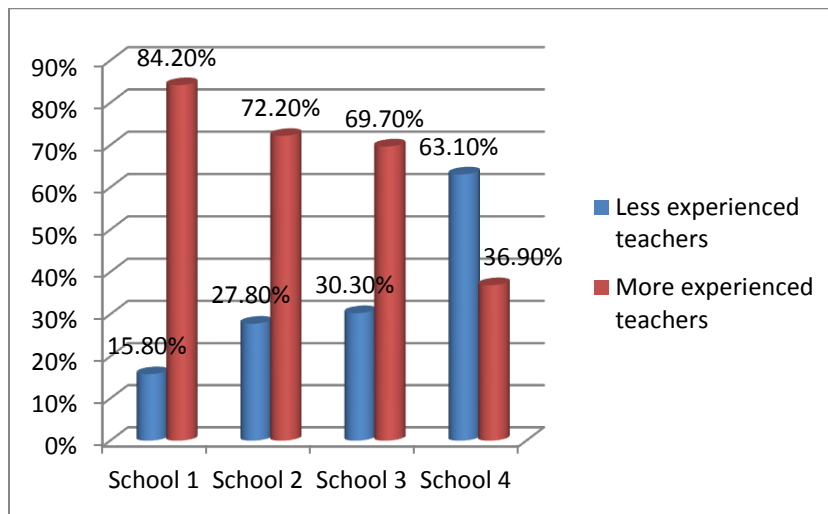
*Figure 8.* Number of teacher respondents by school

Table 15 displays numbers of resistant teachers for each school. In School 1, 2 and 3 the category “over 20 years of experience” of teachers is comprised of the largest

percentages (84%, 62% and 70%). In School 4, the percentage of more experienced teachers (over 20 years) comprised the smaller percentage (37%).

**Table 14**

<i>Resistant Teachers Overview</i>			
School	Total number of Resistant Teachers	Less experienced teachers (under 20)	More experienced teachers (over 20)
School 1	83	13	69
School 2	97	27	70
School 3	112	34	78
School 4	84	53	31
Total	375	127	248



*Figure 9. Percentages of resistant teachers by level of experience*

## Quantitative Data Analysis

**Research Question One.** Question 1 in this study was asked to determine teachers' views and beliefs about the new evaluation process linked to merit pay plans as part of the new career structure in Peru. Questions from 1 through 10 in the Teacher



Individual Survey were given a Likert-scale response to statements regarding the purpose, instruments, content of the evaluation process, quality of evaluators, feedback, and the link between evaluation and professional development of teachers. Teachers were asked to pick a number from 1-5 with 1 being strongly disagree, 2= disagree, 3= neither agree nor disagree, 4= agree, and 5= strongly agree. Results are summarized in Table 16. The response data were analyzed and presented in percentage form for each item to display level of agreement as an entire sample. The reliability coefficient using Cronbach's coefficient alpha for teachers' perceptions of the evaluation process had a reliability ranking of 0.84. The percentages are presented with responses indicating general agreement combined under the heading *strongly agree/agree*, responses indicating general disagreement combined under the heading *disagree/strongly disagree*, and responses indicating no opinion under the heading *neither agree/nor disagree*.

Table 15 shows overall teachers' response to the evaluation process. Over 65% of respondents indicated that the teacher evaluation process has not done a good job in defining the best teachers, whereas the same percentage of teachers (68%) believe that a teacher performance appraisal should motivate teachers to work hard and improve their performance. These results suggest that almost 70% of teachers support merit pay plans, however they oppose teachers' evaluation based on test scores; 58% of teachers said that the tests' rubrics were not clear and correct; and 61% did not believe that reaching the minimum score on teacher tests will help them to improve performance. More than 50% of teachers did not agree with the evaluation contents. There is a substantial research base that confirms these findings as cited earlier. Cole, Robinson, Ansaldo, Whiteman, and

Spradlin (2012) have confirmed that teacher compliance alone will not ensure that a system of evaluation will have create understanding and acceptance among teachers, a culture of shared responsibility, or a system of internal accountability. The 2009 Teacher Project reported that most teacher evaluation system suffer from a slew of design flaws.

**Table 15*****Teachers' Overall Response to the Evaluation Process***

No.	Factors	Strongly disagree/ Disagree	Neither agree nor disagree	Strongly Agree/ Agree	Total
01	The evaluation process has done a good job in defining the best teachers.	68%	12%	20%	100%
02	I have a good understanding of the purpose of the evaluation process.	30%	21%	49%	100%
03	The teacher evaluation test rubrics are clear and correct.	58%	21%	20%	100%
04	Reaching the minimum score on the teacher evaluation tests will really help teachers to improve their performance.	61%	15%	25%	100%
05	The new salary schedule would help teachers to improve student achievement.	61%	10%	28%	100%
06	A performance appraisal system would motivate teachers to work hard and improve their performance.	21%	11%	68%	100%
07	The contents on which teachers are evaluated correspond to their level of education (pre-school, elementary, secondary and specialization.	59%	13%	28%	100%
08	The evaluation committee members are qualified to evaluate teaching quality in the second stage of the evaluation process of the CPM.	61%	21%	18%	100%
09	The mentoring and feedback that teachers have received from evaluators, if any, is satisfactory.	53%	28%	19%	100%
10	The evaluation process allows teachers to advance fairly through the five levels of the new career structure and contribute to professional development.	36%	12%	52%	100%

In more than half of the cases (53%) studied, teachers overwhelmingly reported that evaluation did not give them useful feedback on their performance in the classroom. Approximately 30% of the respondents indicated that they do not have a good understanding of the purpose of the teacher evaluation process whereas 49% indicated that they have a clear and a good understanding of the purpose of the evaluation, and the remaining 21% have no opinion. The results suggest a lack of commitment and ownership of the evaluation policy, which can be considered as one of the main causes of teachers' resistance to evaluation. Another finding with typical teacher evaluations concerns the subjects by which teachers are evaluated and their correspondence to the levels of education (pre-school, elementary, secondary) taught. There is often a lack of connection between teacher evaluation and student learning (Ellet & Teddlie, 2003).

**Teachers' Perceptions about Evaluation by Schools.** In order to establish and compare differences in teachers' perceptions the selected schools for this study, the following Likert-type score was used, to give an overall rating to the evaluation process (see Table 16).

**Table 16**

***Score Range and Scales for Teachers' Perceptions***

Score Range	Scales
0-10	Totally disagree
11-20	Disagree
21-30	Neither agree/nor disagree
31-40	Agree
41-50	Totally agree

**School 1.** An overall examination of the responses of School 1 shows that more than 30% of teachers reported to *agree* or *strongly agree* with the evaluation process (see

Table 18). However, when these teachers had the opportunity to take teacher competency exams during the period of 2007– 2010, only 10 (11%) teachers took advantage of the opportunity. School 1 is one of the two schools with the highest level of resistance (89% of the School 1 teachers resisted evaluation). The majority of teachers' responses from School 1 are concentrated in the scale *neither agree nor disagree* (50%). These findings represent teachers' overall dissatisfaction and lack of understanding of the evaluation process in general. With regard to differences in percentages between resistant and compliant teachers, the majority of resistant teachers of School 1, are concentrated in the scale *neither agree nor disagree* (55%). This high percentage of uncertainty about the evaluation process is remarkable (see Table 17 and Table 18).

**Table 17**

<i>School 1 Teachers' Perceptions to Evaluation</i>		
cale	<i>f</i>	%
Strongly disagree	0	0
Disagree	16	17
Neither agree nor disagree	46	50
Agree	28	30
Strongly agree	2	2
Total	92	100

**Table 18*****School 1 Resistant and Compliant Teachers' Level of Response***

Scale	Resistant teachers	%	Compliant teachers	%
Strongly disagree	0	0	0	0
Disagree	16	20	0	0
Neither agree nor disagree	45	55	1	10
Agree	21	26	7	70
Strongly agree	0	0	2	20
Total	82	100	10	100

**School 2.** School 2 is considered to be the most traditional school of Trujillo and has the same demographics as School 1 and School 3. The higher concentrations of responses regarding general perceptions of teacher evaluation were *neither agree nor disagree* (41%). Table 20 shows that 36% of teachers agree with the evaluation process. This represents a higher level of acceptance of the evaluation than in School 1, but a lack of commitment because of the failures of its implementation. Almost 50% of resistant teachers at School 2 reported that they have no opinion regarding the evaluation in general (see Table 19).

**Table 19*****School 2 Teachers' Perceptions to Evaluation***

Scale	<i>f</i>	%
Strongly disagree	0	0
Disagree	25	21
Neither agree nor disagree	48	41
Agree	43	36
Strongly agree	2	2
Total	118	100

**Table 20*****School 2 Resistant and Compliant Teachers' Level of Response***

Scale	Resistant teachers	%	Compliant teachers	%
Strongly disagree	0	0	0	0
Disagree	25	26	0	0
Neither agree nor disagree	46	47	2	10
Agree	26	27	17	70
Strongly agree	0	0	2	20
Total	97	100	21	100

**School 3.** School 3 has the highest level of resistance (92%) of the evaluation.

Although 33% of teachers at School 3 either *agree* or *strongly agree* with the evaluation process, statistics shows that 8% of teachers (9) took the competency exams during the period of 2009-2011 (see Table 21 and Table 22).

**Table 21*****School 3 Teachers' Perceptions to Evaluation***

Scale	<i>f</i>	%
Strongly disagree	0	0
Disagree	43	36
Neither agree nor disagree	39	32
Agree	31	26
Strongly agree	8	7
Total	121	100

**Table 22*****School 3 Resistant and Compliant Teachers' Level of Response***

Scale	Resistant teachers	%	Compliant teachers	%
Strongly disagree	0	0	0	0
Disagree	43	0	0	38
Neither agree nor disagree	39	0	0	35
Agree	30	11	1	27
Strongly agree	0	89	8	0
Total	112	100	9	100

**School 4.** The results from School 4 (see Table 23 and Table 24) indicate that of the 102 teachers who completed the survey, almost 30 % of the respondents agree with the evaluation process. Just over 40% of teachers also reported that they had no opinion about the teacher evaluation. Furthermore, most teachers categorized as resistant reported having no opinion about the evaluation process.

**Table 23*****School 4 Teachers' Perceptions to Evaluation***

Scale	<i>f</i>	%
Strongly disagree	0	0
Disagree	18	18
Neither agree nor disagree	45	44
Agree	30	29
Strongly agree	9	9
Total	102	100



**Table 24**

***School 4 Resistant and Compliant Teachers' Level of Response***

Scale	Resistant teachers	%	Compliant teachers	%
Strongly disagree	0	0	0	0
Disagree	18	21	0	0
Neither agree nor disagree	42	50	3	17
Agree	24	29	6	33
Strongly agree	0	0	9	50
Total	84	100	18	100

In conclusion, the general findings regarding teachers' perceptions to evaluation suggest high levels of resistance by the majority of teachers (87%) in this sample group.

**Research Question Two.** In order to investigate the second research question, it was necessary to identify the most important factors influencing teachers' compliance to evaluation. A total of 58 teachers responded to the second part of the survey (Items 11 through 20). The survey found that compliant teachers gave confirmatory responses regarding their decisions to be become certified. As shown in Table 25, respondents were participants of the four schools selected for this study who make up 13% (58) of the total sample of teachers (433). Table 26 also shows that two statements received the highest scores. These statements focused on professional recognition of teacher degrees, research, specialization, past appointments, intellectual productivity, distinctions, and honors. Both statements received the same rating of agreement with a mean ranking of 4.14. The other two significant factors for compliance were (1) opportunities for professional development and improvement of academic qualifications and (2)

professional autonomy to advance from Level I of La Carrera Pública Magisterial to the Levels II, III, IV, and V.

Table 25 also shows the statements with the least agreement, which were the *salary benefits package* and *years of experience* as a professional educator being considered for career development. These statements scored a rating of 9.2 landing just slightly in the *agree* portion of the Likert scale. Although these responses did not rank very low when comparing with the other statements, they demonstrate the least representative factors influencing teachers' motivation. The Cronbach's alpha test results produced a coefficient of 0.88, which indicates a high level of consistency among the items.

**Table 25*****Factors Associated to Teachers' Compliance***

No.	Factors	Score	%	<i>M</i>	<i>SD</i>
11.	Teacher career ladder based on incentives.	212	9.7	3.66	1.15
12.	Competitive salary.	208	9.5	3.59	1.27
13.	Salary benefits package.	201	9.2	3.47	1.06
14.	Merit-based increments based on competency exam scores.	214	9.8	3.69	1.06
15.	Professional recognition of degrees, research, specialization, and abilities.	240	11.0	4.14	0.96
16.	Professional recognition of past appointments, intellectual productivity, distinctions and honors.	240	11.0	4.14	0.84
17.	Years of experience as a professional educator will be considered for career advancement..	200	9.2	3.45	1.34
18.	Opportunities for professional development and to improve academic qualifications.	229	10.5	3.95	1.15
19.	Professional support after being certified to improve performance.	209	9.6	3.60	1.20
20.	Professional autonomy to advance from Level I of La Carrera Pública Magisterial to the levels II, III, IV and V.	226	10.4	3.90	1.05
Total		2179	100		

**Research Question Three.** Question 3 sought to analyze the causes of teachers' resistance. Section III of the survey (Questions 21 through 30) asked teachers to rate the causes of their opposition to evaluation. The primary goal of Question 3 was to measure the difference between the responses of less and more experienced teacher responses to four different variables (*financial incentives* based on teachers' competency exam scores, *teachers' benefits and rights*, *teacher tenure*, and the *financial costs of the law implementation*), which are considered the most compelling reasons why teachers

resisted evaluation. This section used the  $t$ -test to report the responses of 375 public school teachers in the city of Trujillo.

**$t$ -Test.** The research hypotheses were not stated as directional or non-directional, but in null form. That is, the prediction is that there are no statistically significant differences between the means of the groups. The null hypothesis was evaluated via a two-tailed  $t$ -test.

The assumptions underlying the  $t$ -test were:

1. The two groups were independent of each other (teachers over 20 and teachers under 20 years of experience).
2. Each individual teacher (or case) appeared only once in each group.
3. The two groups came from two different populations whose variances were approximately the same (homogeneity of variance).
4. The null hypothesis was non-directional.

### **Hypothesis Testing for Financial Incentives**

*Null Hypothesis-  $H_0$ :* When considering teachers' resistance to evaluation, there is no statistically significant difference between less and more experienced teachers regarding the importance of *financial incentives* based on teachers' competency exam scores.

*Alternative Hypothesis- $H_1$ :* When considering teachers resistance to evaluation, there is statistically significant difference between less and more experienced teachers regarding the importance of *financial incentives* based on teachers' competency exam scores.

An independent samples *t*-test was conducted to determine if there is significant difference between more experienced and less experienced teachers regarding the importance of *financial incentives* based on teachers' competency exams scores.

**Table 26**

***Independent Samples t-Test for Levels of Experience and Financial Incentives***

Level of experience	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
More experienced	248	13.61	3.54	373	2.52	.001
Less experienced	127	14.60	3.68			

*Note.  $p < .05$*

The results,  $t_{(353)} = 2.52$ ,  $p = .001$ , showed that there is a statistically significant difference between the levels of importance assigned to *financial incentives* based on teachers' competency exam scores when comparing more experienced teachers ( $M=13.61$ ,  $SD=3.54$ ) and less experienced teachers ( $M=14.60$ ,  $SD=3.68$ ). Since the *t*-test (2.52) exceeds its appropriate critical value, the null hypothesis was rejected and the alternative hypothesis was accepted in its place (see Table 26). The hypothesis stated in this study: When considering teachers' resistance to evaluation, there is no statistically significant difference between less and more experienced teachers regarding the importance of *financial incentives* based on teachers' competency exam scores. Based on these results, the null hypothesis was rejected and the alternative hypothesis was accepted. We can be at least 95 percent confident that the *financial incentives* based on test scores was one of the main causes of resistance for less experienced teachers similar to more experienced teachers.

### Hypothesis Testing for Teachers' Benefits and Rights

*Null Hypothesis  $H_0$ :* When considering teachers resistance to evaluation, there is no statistically significant difference between less and more experienced teachers regarding the importance of reducing *teachers' benefits* and losing *rights*.

*Alternative Hypothesis  $H_1$ :* When considering teachers resistance to evaluation, there is statistically significant difference between less and more experienced teachers regarding the importance of reducing *teachers' benefits* and losing *rights*. An independent sample *t*-test was conducted to determine if there is significant difference between more experienced and less experienced teachers regarding the importance of reducing *teachers' benefits* and losing *rights*.

**Table 27**

***Independent Samples t-Test for Levels of Experience and Teachers' Benefits and Rights***

Level of experience	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
More experienced	248	6.54	2.49	373	1.96	0.051
Less experienced	127	7.08	2.52			

*Note.*  $p < .05$

Regarding the issue of reducing *teachers' benefits* and losing *rights*, the results ( $t_{(373)} = 1.96, p = 0.051$ ) showed that there is no statistically significant difference between the levels of importance assigned by more experienced teachers ( $M = 6.54, SD = 2.49$ ) and less experienced teachers ( $M = 7.08, SD = 2.52$ ) (see Table 27). Based on these results, the null hypothesis was accepted and the alternative hypothesis was rejected.

### Hypothesis Testing for Teacher Tenure

*Null Hypothesis  $H_0$ :* When considering teachers resistance to evaluation, there is no statistically significant difference between less and more experienced teachers when measuring the importance of ending *teacher tenure*.

*Alternative Hypothesis  $H_1$ :* When considering teachers resistance to evaluation, there is statistically significant difference between less and more experienced teachers when measuring the importance of ending *teacher tenure*.

An independent sample *t*-test was conducted to determine if there is significant difference between more experienced and less experienced teachers regarding the importance of ending *teacher tenure* (see Table 28).

**Table 28**

<i>Independent Samples t-Test for Levels of Experience and Teacher Tenure</i>						
Level of experience	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
More experienced	248	6.65	2.00	373	1.64	0.10
Less experienced	127	7.01	2.09			

*Note.*  $p < .05$

The results,  $t_{(373)} = 1.64$ ,  $p = 0.10$ , showed that there is no statistically significant difference between the levels of importance assigned to *teacher tenure* when comparing more experienced teachers ( $M = 6.65$ ,  $SD = 2.00$ ) and less experienced teachers ( $M = 7.01$ ,  $SD = 2.09$ ). Based on these results, the null hypothesis was rejected and the alternative hypothesis is accepted.

### Hypothesis Testing for the Financial Costs of the Law Implementation

*Null Hypothesis  $H_0$ :* When considering teachers resistance to evaluation, there is no statistically significant difference between less and more experienced teachers regarding the importance of the *financial costs of the law implementation* and its sustainability.

*Alternative Hypothesis- $H_1$ :* When considering teachers resistance to evaluation, there is statistically significant difference between less and more experienced teachers regarding the importance of the *financial costs of the law implementation* and its sustainability.

An independent sample *t*-test was conducted to determine if there is significant difference between more experienced and less experienced teachers in the importance of the *financial costs* of the law implementation and its sustainability (see Table 29).

**Table 29**

***Independent Samples t-Test for Levels of Experience and the Financial Costs of the Law Implementation***

Level of experience	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
More experienced	248	6.29	1.96	373	3.61	0.01
Less experienced	127	7.06	1.98			

*Note.*  $p < .05$

Regarding the issue of the *financial costs* of the law and its implementation, the results  $t_{(363)} = 3.61$ ,  $p = 0.01$ , showed that there is a statistically significant difference between the levels of importance assigned by more experienced teachers ( $M = 6.29$ ,



$SD=1.96$ ) and less experienced teachers ( $M=7.06$ ,  $SD= 1.98$ ). The hypothesis stated in this study: when considering teachers resistance to evaluation, there is statistically significant difference between less and more experienced teachers regarding the importance of the *financial costs* of the law implementation and its sustainability. Based on these results, the null hypothesis was rejected and the alternative hypothesis was accepted. We can be at least 95 percent confident that the *financial costs* of the law and its sustainability was one of the main causes of resistance for less experienced teachers similar to more experienced teachers.

### **Qualitative Data Analysis**

In order to answer research Question 4 (What are the circumstances and conditions under which compliance and resistance to a new law occurs in Peru? ) and Question 5 (What is the impact of teacher resistance to evaluation in schools? How does teacher resistance affect the goals of reforms?), twenty-one hour interviews were conducted to explore factors of compliance and patterns of resistance in teachers' responses.

Participants were selected based on the following criteria:

1. Representatives of both compliant and resistant participants were interviewed to identify patterns of resistance.
2. Representatives of resistant participants of the two different groups (over-20 and under-20 years of experience) were interviewed to investigate significantly different results.

3. Participants who scored far outside the norm were interviewed in order to understand why they might have scored as they did.
4. Participants who had differing scores and significant predictors (positive scores, neutral scores, and negative scores) were interviewed in order to further examine the causes of different results.

Ten resistant participants, 5 from each cohort (under-20 and over-20 years of experience) were asked a variety of questions designed to examine critical issues regarding opposition. Ten compliant teachers were invited also to participate in order to explore the factors associated with compliance. The interview protocol is presented in Appendix B. Appendix C presents a portion of 5 highly resistant participants' responses and 5 compliant participants' responses to a series of questions regarding compliance and resistance to a new law and how this affected the goals of reform.

In order to analyze the data produced from the 20 interviews, the Analysis Method Framework was used. The analysis method framework was developed during the 1980s at the National Centre for Social Research (Ritchie & Spencer, 1994) and is now widely used by qualitative researchers. It is a matrix-based analytical method, which facilitates rigorous and transparent data management so that all stages involved in the 'analytical hierarchy' can be systematically conducted (Ritchie & Lewis, 2009).

### **Conceptual Framework for the Study**

#### *1. Purpose of teacher evaluation*

- 1.1 Good and effective teachers.
- 1.2 Evaluation process accuracy
- 1.3 Sound research/evaluation methods
- 1.4 Reaching the minimum score
- 1.5 Teachers' reactions to evaluation

2. *Accuracy and validity of teachers' tests*
  - 2.1 Flawed tests
  - 2.2 Valid or reliable tests
  - 2.3 Unfair methods and flawed tests
  - 2.4 Standardized tests
  - 2.5 Content knowledge tests
3. *Teacher evaluation as a voluntary process*
  - 3.1 Level of teacher participation
  - 3.2 Mandatory evaluation
  - 3.4 Voluntary process
4. *Financial incentives based on student achievement*
  - 4.1 Merit pay and student achievement
  - 4.2 Merit pay evaluation process
5. *Merit pay plans linked to teacher competency exam scores and performance*
  - 5.1 Fair methods to evaluate teachers
  - 5.2 Rewarding teachers based on test scores
  - 5.3 Financial recognition and improved performance
  - 5.4 Underpaid teachers
  - 5.4 Teacher performance in the classroom
6. *Teacher motivation to take professional competency tests*
  - 6.1 Recognition of teacher qualifications
  - 6.2 Teacher weaknesses
  - 6.3 Feedback and training
  - 6.4 Areas in need of improvement
  - 6.5 Professional development
7. *Teachers' benefits and rights*
  - 7.1 Teacher tenure
  - 7.2 Teacher career status
  - 7.3 Participation and involvement in policy design
8. *Teacher tenure*
  - 8.1 Teacher dismissals
  - 8.2 Remediation plan
  - 8.3 Teacher contracts
9. *Financial costs of the law and its sustainability*
  - 9.1 Budget constraints
  - 9.2 Costs of teacher performance evaluation
10. *Miscommunication and lack of consensus in policy design*
  - 10.1 Misconceptions about teacher quality

10.2 Lack of understanding of the purpose of the law

10.3 Lack of communication

*11. Teacher career policy*

11.1 Teacher career advancement

11.2 Improvement of the teacher profession

11.3 Poor management and administration of the policy

11.4 Teachers' lack of trust in government policies

*12. School environment*

12.1 Unhealthy competition

12.2 Collegial atmosphere

12.3 Teacher union's membership

***Labeling the Data.*** Having constructed the initial conceptual framework, my next task was to apply it to the data gathered by the interviews. Forty-two different index categories were applied involving twelve different major themes. It was common to find several themes closely related, such as financial incentives based on student test scores and linking merit pay and student achievement.

## **Merging Data Analysis in an Explanatory Design**

After the initial quantitative and qualitative analyses and indexing were performed, a *side-by-side comparison for merged data analysis* was chosen for comparing results (Creswell & Plano Clark, 2011). As the quantitative data were collected before the qualitative data (explanatory design), the following mixed methods questions needed to be addressed: in what ways do the qualitative data help to explain the quantitative results?

Summary tables that merged the quantitative and qualitative findings were used to answer this question. As shown in Table 30, survey data are compared interview data of resistant teachers on four major themes (purpose of the evaluation, accuracy and validity of teachers' tests, financial incentives based on student achievement, and merit pay plans linked to teacher performance). The main themes were based on the similar information found in both sources of data regarding teachers' perceptions of evaluation and its link to merit pay.

**Table 30*****Comparison of Teacher Evaluation Survey and Interview Data: Resistant Teachers***

	Themes	QUAN results (Surveys)	QUAL results (Face to face interviews)
1.	Purpose of teacher evaluation	68% indicated that evaluation did not fulfill its purpose of defining the best teachers.  30% indicated that they did not have a good understanding of the teacher evaluation process.  21% have no opinion about the purpose of the teacher evaluation process.	Unrealistic and dishonest teacher evaluation. Preserve the contract teacher regime to avoid social debt. Lack of trust in government policy, lack of understanding of the evaluation purpose. Evaluation based on an unconstitutional law. Legal framework for unfair dismissals. The evaluation policy did not reach its goal
2.	Accuracy and validity of teachers' tests.	58% said test rubrics are not clear and correct. 61% believed that reaching the minimum score will not help teachers to improve their professional performance. 59% agree that there were flaws in the contents of teachers' tests.	Mandatory knowledge- based tests with punitive purposes. Teacher quality cannot be measured through test scores or with a knowledge-based test. Comprehensive teacher evaluations. No real objective evaluation system exists.
3.	Financial incentives and student achievement	61% thought that financial incentives would not be linked to student achievement.	New certified teachers but no increases in student achievement
4.	Merit pay plans linked to teacher performance	21% believed that a teacher performance appraisal would inspire teachers to improve performance	Only 2% of teachers would improve performance due to financial incentives. Teachers without vocation.

Table 31 summarizes the quantitative and qualitative findings of compliant teachers. A comparison was made between both sources of data in five major themes (purpose of teacher evaluation, accuracy and validity of teachers' tests, teacher evaluation as a voluntary process, salary incentives based on teachers' test scores, and teacher motivation to take competency professional tests). In this section, I examined the results

of the compliant teachers' response. By and large, it appears that teachers in Peru expressed concerns about understanding the purpose of the law. Forty-nine percent of teachers expressed concern about their capacity to gain an understanding of the evaluation system. Only 28% agree that the content on which they were evaluated corresponded to their level of education.

**Table 31**

<i>Comparison of Teacher Evaluation Surveys and Interview Data: Compliant teachers</i>			
	General teachers' perceptions	QUAN results (Surveys)	QUAL results (Face to face interviews)
1.	Purpose of teacher evaluation.	49% admitted to having a good understanding of the purpose of teacher evaluation.	Teacher evaluation selected the best teachers. Criterion for teachers' selection: academic preparation and years of experience.
2.	Accuracy and validity of teachers' tests.	28% agree with the contents on which teachers were evaluated as corresponding to their level of education.	Teachers demonstrated their subject knowledge through tests.
3.	Teacher evaluation as a voluntary process		All teachers should be evaluated. Low participation of teachers in evaluations. It is important to teachers to assess their knowledge and performance.
4.	Salary incentives based on teacher test scores	68% admitted that a new performance appraisal system would motivate them to improve their performance.	Teachers need high salaries and incentives. Not only incentives, permanent training is necessary. High salaries will make better teachers.
6..	Teacher motivation to take competency professional tests.	The most important factors for compliance: professional recognition of degrees, research, and specialization ( $M=4.14$ ) and professional recognition of past appointments, intellectual productivity, distinctions, and honors ( $M=4.14$ ).	Teachers are highly motivated for improved performance in the classroom. Highly motivated teachers.

Table 32 shows that no differences were found between less and more experienced teachers in the level of importance assigned to teacher tenure and teachers' rights and benefits; however, there were differences between both groups regarding



financial incentives based on test scores and the financial implementation of the law and its sustainability.

**Table 32**

***Comparison of Survey and Interview Data by Cause of Resistance***

	Theme	QUAN results (Surveys)	QUAL results (Face to face interviews)
5.	Financial incentives based on competency exam scores.	Statistical difference exists between more experienced teachers (over-20) and less experienced (under-20).	Difficulties with the management of the financial incentives by the Ministry of Education. Unhealthy competition Path to privatization.
7.	Teachers' rights and benefits	No statistical difference between more experienced teachers (over-20) and less experienced (under-20).	Threatened teachers' rights and tenure. It is necessary a comprehensive teacher evaluation. Government blocked the union's right to strike.
8	Teacher tenure	No statistical difference between more experienced teachers (over-20) and less experienced (under-20).	Reduced opportunities for career advancement by reducing the number of new positions at each stage of the career ladder due to reduced budget. Legal teacher job insecurity.
9	Financial costs of the law implementation	Statistical difference exists between more experienced teachers (over-20) and less experienced (under-20).	Government does not guarantee the budget for the law implementation. High levels of corruption between the media and the economic and political groups.

In order to draw conclusions or inferences, the meta-inferences are included at the end of the study and are also included in the larger interpretation being made in the discussion section of a study. The meta-inferences relate to whether the follow-up qualitative data provide a better understanding of the problem than simply the quantitative results.

## Conclusion

A preliminary descriptive analysis was conducted. Means, standard deviations, and ranges among study variables were computed. Several points appeared notable with regard to the purpose of the study. First, perceptions of evaluation in general show a fairly high level of dissatisfaction for the whole group of teachers (68%). At the same time, almost 70% of the teachers of the population support evaluation. Second, the compliant teachers (87%) appear to view the evaluation system as somewhat effective. When individual items are examined, however, teachers' lowest ranking were "years of experience" and "salary benefits package" ( $M=3.47$  and  $M=3.45$  respectively). Third, more experienced and less experienced teachers tend to agree, that losing tenure and ending benefits and rights are the main causes for opposition and resistance. Resistant teachers had less agreement, however, that the causes of resistance were opposition to *financial incentives* based on test scores and concerns about the *financial costs of the implementation of the law*. The findings from the qualitative interviews showed that teachers' perceptions of evaluation are based mostly on issues of trust, fairness, and accuracy of the evaluation process. Most of the respondents, whether compliant or resistant, mentioned other critical issues in the implementation of the law such as lack of consensus in the policy design (87%) and political corruption in the education sector. Another important observation is the concern expressed by teachers about the extent to which merit pay plans are linked to student achievement and how to assure that teachers receiving salary incentives are actually increasing student achievement.

## **CHAPTER FIVE**

As part of a broad 2007 teacher reform, the Congress of Peru passed Law 29024 (Ley de la Carrera Pública Magisterial), a bill that significantly changed the way teachers will be evaluated and compensated. The requirement for teachers to move from a traditional system of evaluation and compensation that has been in practice for decades to a system that more directly links teacher performance to compensation. The implementation has been problematic throughout the country. On the one hand, many believe that the traditional system of teacher evaluation needs to change. On the other hand, comfort with the old system and fear of attaching compensation to performance has generated a fierce battle between government and teachers. Fifty-five thousand out of nearly 300,000 teachers complied with Law 29024 (Ley de la Carrera Pública Magisterial). The SUTEP's reactions to and the arguments against this new law have included: (1) general resistance to financial incentives based on teacher test scores, (2) concern that the new law represents a government strategy to restrict teachers' rights and benefits, (3) loss of teacher tenure, and (4) concern about the financial costs of the law and its sustainability over time.

The purpose of this study was (1) to determine the perceptions and beliefs about a new evaluation process and (2) to identify factors for compliance and causes of resistance to the implementation of a new evaluation system and merit pay plans governing which lead to career advancement. In order to reach the goals of the study, a mixed methods sequential explanatory analysis was used. This mixed methods study examined teacher resistance to the new evaluations and assessed the importance teachers assigned to 4 variables. The study investigated whether teachers with more versus less experienced

assigned the same level of importance to the most compelling reasons for resistance (the four variables measured in the quantitative phase): financial incentives, teacher benefits and rights, teacher tenure, and the sustainability of the financial costs of the law implementation. The qualitative phase involved using qualitative data for critical case sampling to increase data richness around quantitative results.

The following questions guided this research:

**Research Question 1.** What are the teachers' perceptions and beliefs about the evaluation process as part of the new career structure for teachers in Peru?

**Research Question 2.** What factors have had the greatest influence on teachers' compliance with the Ley de la Carrera Pública Magisterial (CPM)?

**Research Question 3.** Of those teachers who are resisting evaluation, what are the most compelling reasons for those with more than 20 years of experience and those with less than 20 years of experience for such resistant behavior?

(3.1) Is there a significant difference in the importance of *financial incentives* based on teachers' competency exam scores related to their levels of experience?

(3.2) Is there a significant difference between the two groups in the importance of a reduction in *teachers' benefits and rights*?

(3.3) Is there a significant difference in the importance of ending *teacher tenure* as a cause of resistance?

(3.4) Is there a significant difference in the perceived importance of the *financial costs of the law implementation* and is it sustainable?

**Research Question 4.** What are the circumstances and conditions under which compliance and resistance to new laws occur in Peru?

**Research Question 5.** What is the impact of teacher resistance to evaluation in schools? How does teacher resistance affect the goals of reform?

### **Discussion of Findings**

This section provides a discussion of the major research findings of research of teachers' motivational factors related to compliance and resistance to a new law.

Discussion is based on a framework of psychological and educational research traditions that examine resistance, conflict, and compliance of teachers with a new policy. The findings are presented in relation to other current research. To facilitate this discussion, this section is divided into participant responses to each research question.

#### **Research Question One: Teachers' Perceptions of the New Evaluation Policy.**

Teachers showed reactions of compliance and resistance to the evaluation system as a whole. On the one hand, the study shows that resistant teachers' perceptions were influenced by perceptions of trust, fairness, and accuracy. The most critical concern expressed in teachers' responses was that the policy would not identify the "best teachers" (68%). Few teachers agreed that reaching the minimum score will help teachers to improve their professional performance (39%) and that the new teacher salary schedule would help teachers to improve student achievement (39%). Teachers were also concerned about the validity and reliability of the tests (58%) and did not believe that there was any correspondence between the subjects on which they were tested and their curriculum and pedagogy (59%). To make matters worse, nearly 60 percent of teachers

didn't trust evaluators. Teachers overwhelmingly reported that evaluations did not give them useful feedback on their performance in the classroom (53%) in spite of the fact it was stipulated by the law. Teachers also reported that the new system did not have any impact on their instructional practice or school environment.

Compliant teachers, on the other hand, perceived the new policy as necessary for the legitimacy of their work. However, most teachers (80%) were somewhat concerned about the way the government authorities implemented the process of teacher evaluation. Teachers were more positive regarding the idea of evaluations in general. In analyzing qualitative data, teachers reported concerns of misconceptions about teacher quality, the constitutionality of the law, lack of research, and unfair evaluation methods and dismissals. Teachers also reported lack of trust in government policies, political corruption, and a reduction in number of teacher positions at the higher level of the career structure. As a way to find a solution for these problems, teachers suggested the design of a comprehensive model of teacher performance evaluation and a clear consensus on what "best teachers" actually means. Teachers also reported that the new system did not have any impact on their instructional practice or school environment.

Table 33 outlines the statements about the teachers' beliefs regarding evaluation and the counter-propositions regarding merit pay. As depicted in the table, over 80% of teachers (375) categorized as resistant did not take competency tests and 61% of teachers did not believe the new salary would help to improve student achievement; however, 68% of them agree with the new teacher performance appraisal motivation to work hard and improve performance.

**Table 33**

***General Teachers' Response***

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1	375 (86.60%) teachers out of 433 opposed evaluation as they declared in the survey as not taken regulatory competency exams.
2	264 (61%) out of 433 did not believe the new salary would help teachers to improve student achievement.
3	294 (68%) agreed with the new teacher performance appraisal to motivate teachers to work hard and improve their performance.

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These findings argue for a much more comprehensive system for explaining teachers' reactions as they tried to meet the demands of the policy. There are, however, some critical issues in which Peruvian teachers' responses could deviate from the expected response depending on the particular assessment tool. Research on the impact of merit pay on teacher quality found that what limited survival of merit pay plans was not necessarily merit pay, but the way the plans were designed, implemented, and administered (Heneman et al. 2007; Murnane & Cohen, 1986; Robinson, 1983). Notwithstanding these unsuccessful experiences, national surveys have found that teacher attitudes toward some forms of performance pay are favorable.

Teachers, who saw the evaluation as inaccurate, unfair, and flawed also viewed the new teacher appraisal system positively (68%). The interviews revealed that teachers were aware of and troubled by implementation pitfalls and lack of clarity in testing procedures. These pitfalls led many teachers to question the fairness and validity of the system, causing conflict between government authorities and teachers (Rivero & Vexler, 2012). Researchers and policy makers agree that most current teacher evaluation systems do little to help teachers improve or to support personnel decision-making. There's also a growing consensus that use of teacher contributions to student learning and

measurements of the quality of teacher practices should be part of teacher evaluation systems (National Comprehensive Center for Teaching Quality, 2011; Hightower, Delgado, Lloyd, Wittenstein, Sellers, & Swanson, 2011). The high sensitivity to evaluation showed by the participants of this study may be due to the pressure they feel from the government, parents, and others outside the classroom. Qualitative findings also revealed that the results of evaluations are rarely used to make important decisions about development, compensation, tenure or promotion. In fact, in most of the cases studied, the majority of the teachers considered that they were evaluated only for the purpose of dismissing them. Teachers' reactions to pay systems were largely negative, and consisted of concerns about competitive salaries increasing risk of future dismissals, future pay uncertainty, and rumors of government quotas on the number of experienced teachers.

The shortcomings found in the quantitative and qualitative data reflect and reinforce a pervasive but deeply flawed belief that all teachers are essentially the same, rather than individual professionals. Findings of this study have also found support in the research of Kimball (2002), Heneman and Milanowski (2003), and Milanowski and Heneman (2001), which suggested that teacher acceptance of standards-based evaluation cannot be taken for granted and depends on several factors including: characteristics of evaluation feedback, perceptions of feedback, perceptions of fairness, and perceptions of evaluator qualifications. Survey results were largely consistent with interview information. Teachers resisting evaluation were, on average, negative or neutral about the fairness of the process, the accuracy and fairness of their own evaluation results, and the usefulness of the evaluation process to them.



**Research Question Two: Factors Influencing Teacher Compliance.** Research question two sought to identify the factors that determined teachers' compliance to a new law. The data from this study indicate that the most important factors relating teachers' decisions were those related with professional development, recognition, and autonomy. Compliant teachers' responses were more consistent with regard to those factors ( $M=3.95$ ;  $M=4.14$ ;  $M=3.90$  and  $SD=1.15$ ;  $SD=0.96$ ,  $SD=1.05$ ). The evaluation process gave teachers the opportunity to link professional recognition of advanced degrees, research, specialization, and abilities. Recognition were also granted for past appointments, intellectual productivity, distinctions, and honors. These findings are supported by results from a study of Massachusetts' teacher attrition rates. In a longitudinal study of 50 new teachers in Massachusetts, Johnson and Birkeland (2003) found that respondents' reasons for staying in their schools, moving to another schools, or leaving public school teaching within their first 3 years of teaching were based on the level of satisfaction of their experiences at the school sites. Central in influencing their decisions were satisfaction with students' learning, school support, collegial interaction, and adequate resources.

A minority of compliant teachers agreed that a teacher performance appraisal system would motivate them to work hard and improve their performance. These findings align with those reported by Conley and Odden (1995), who developed a model in which teacher skill- and knowledge-based pay plans in education may be related to major demarcation points in teachers' career development. An analysis of survey data from career ladder programs in the U.S. and Australia, led the authors to describe three or four

stages that would qualify a teacher for a significant pay increase. These findings are also supported in the studies of Springer (2009), Coggshall et al. (2009), Firestone (1991), and Springer et al. (2010). According to Springer (2009), there is highly visible support for linking teacher quality and compensation, based in part on the weak links between teacher experience and educational credentials and student achievement. Coggshall, Ott, Behrstock, and Lasagna (2010), Firestone (1991), and Springer, Ballou, Hamilton, Lockwood, McCaffrey, Pepper, and Stecher (2010) stated that financial incentives can contribute to positive changes in teaching practices and student outcomes, particularly when coupled with professional development and a supportive organizational structure. In a review of market forces in the teacher labor markets, Murnane and Steele (2007) described how decisions about teaching depend on financial incentives “but also in a wide range of non-pecuniary incentives, such as working conditions” (p. 20).

**Research Question Three: Reported Importance to Causes of Resistance.** The study results found significant differences among resistant teachers regarding the importance of the studied variable; these differences in results are related to respondents’ years of experience. Results of hypothesis *t*-test testing suggested no statistical difference related to the level of importance of losing *teacher benefits and rights* and ending *teacher tenure*. Less and more experienced teachers have rated *tenure* and *teachers’ benefits and rights* as the most important factors that generated resistance. However, results of hypothesis *t*-test testing suggested statistical difference regarding the implementation of *financial incentives* based on test scores and *the financial costs of the law implementation* and its sustainability. Study results showed that teachers were suspicious of evaluation

and merit pay plans because of funding questions. More experienced teachers were often unwilling to buy into the program because of this skepticism.

While teachers' responses for Question 1 and Question 2 illustrate the need for effective and fair methods of evaluating teaching performance and a better definition of the purpose of evaluation policies, teachers' responses for Question 3 have cast on teacher tenure and rights, as a form of job protections. Resistant teachers argued that tenure protects them from being fired for political reasons and prevents the firing of ineffective experienced teachers. Resistant teachers didn't agree that poorly performing teachers would harm student achievement. Resistant teachers also believed that the law was passed without dialogue between themselves and the government because the purpose of the law was to avoid governmental fiscalization, maintain control, and protect political interests.

The results for Question 3 are consistent with those of Putney (2011), who reported that in an online survey of 1,576 respondents, the 2011 North Carolina Association of Educators (NCAE) found that there is strong support for retaining tenure because its members feel that not only is it fair, it protects teachers, students, and the public. Sixty-eight percent of the respondents also believed that ending tenure will prevent teachers from exercising their constitutional right to publicly criticize cuts to public education. Retaining tenure for qualified teachers in North Carolina Public Schools was also supported by 92% of the respondents. Most importantly, 72% of the respondents said that if legislation ending tenure was considered, they would be willing to explain to local legislators what tenure means to them.

**Research Question Four and Research Question Five.** A description and analysis of the open political conflict between the government of Peru and resistant teachers was generated based on the integration of the quantitative and qualitative results. The results of this study suggest that the causes of teachers' resistance to evaluation are not only methodological and technical, but political too. The shortcomings of the current system of teacher evaluation found in this study support prior research showing that teacher evaluation involves problematic processes with common problems being low test validity, high evaluator subjectivity, limited attention to the quality of teachers' instruction, and pervasive mistrust of evaluation (Ballou & Podgursky, 1993; Frase, 1993; Milanowski & Kimball, 2003; Scriven, 1997). Goldhaber (2009) suggested that evaluations should be centered on teachers' classroom performance and student learning, which would create compensation systems more closely linked to effectiveness than the vast majority of those now in place. Weisberg, Sexton, Mulhern, and Keeling, (2009) examined how 12 school districts across four states used teacher evaluation to make human resource decisions. The authors found that the districts had broken evaluation system that tended to recognize and deal with incompetence and failed to reward excellence.

From a political perspective, the circumstances and conditions underlying teachers' resistance must be understood in terms of the political processes and dimensions of power in Peru, especially when the political parties have different expectations and interest which may conflict. Some of the most pressing concerns expressed by teachers in the interviews were the lack of trust in the past and current government and the

constitutionality of the CPM. Resistant teachers' skepticism about the political motivation for a new interest in assessment, and suspicions that the neo-liberal political agenda of the government will drain resources away from programmatic needs made teachers demanded that the bill must be declared unconstitutional. Because it makes it harder for teachers to obtain the job protection status and benefits offered by tenure teachers' benefits, teachers' resistance to evaluation has definitely affected the goals of reform. National teachers' strikes produced a loss of class hours and significant violence in the poorest regions of the country (Peru Support Group, 2010; Diaz, 2012).

### **Discussions of Findings in the Context of the Conceptual Framework**

As reflected in the literature review of teachers' perceptions as causes of compliance and resistance to a new policy, the theoretical context of this study uses Principal-agent Theory, the motivational constructs of Procedural Justice (a sub theory of Organizational Justice Theory) to understand teachers' reactions to the evaluation, and Herzberg's Two-Hygiene Factor Model to explain overall resistance to the policy. Principal-agent theory provides a strong framework for analyzes institutional arrangements governing the work of teachers. Principal-agent theory proposes factors that determine whether or not paying teachers in relation to their individual performance improves teacher productivity. The question that needs asking is to what extent Latin American policymakers should design merit based pay plans in countries with the lowest teacher salaries and very poor working conditions? Many concerns arise from this question. It is widely acknowledged that PAT, based on a rational approach, does not take into account the contextual factors of schooling that impacts upon a teachers

motivation to act upon his or her own self interests. The roles of social and political context, poor working conditions, teacher status, and low salaries of public school teachers in Latin America, are critical issues to be examined in determining the importance of pay to teachers. However, using monetary rewards as a central motivational strategy for teachers seems practical and appealing (Conley & Odden, 1995; Odden & Kelley, 2002).

Using the logic of the rational behavior of Principal-agent theory to teachers' reactions to evaluation and merit pay incentives, it would be necessary to assess teachers' efforts to reach the task goals and to improve student achievement. Unfortunately, no well-defined teachers' performance standards and teacher accountability exists in Peru and the existing policies and resource allocation strategies for improving teacher quality are not theoretically linked to student outcomes. Teachers in Peru receive an increasing number of financial incentives if they work in poor working conditions or areas located in the highlands or jungle regions of the country. Transfers to more desirable locations, such those located on the Coast, reduces the teachers opportunity to receive performance based financial bonuses. According to the Ministry of Education (2012), 10% (95,491) of public school teachers work in the rural areas of Peru. Translating this fact to the work of teachers, it demonstrates that designing effective compensation systems "involve trade-offs among related factors, such as ratios of students to teaching staff, class sizes...and other working conditions" (OECD, 201, pp. 40, 41).

As this study uses Principal-agent theory to provide a framework for analyzing institutional arrangements governing the work of teachers, a human capital approach can

be used to address how the resources can best be allocated for the improvement of teacher quality. While Spender (as cited in Burton-Jone and Spender, 2011) argues that the shortcomings of the Principal-agent theory would allow us to see human capital as a more widely acknowledged concept, Plecki (2000) uses the economic perspectives of human capital to explain the design and implementation of investment policies targeted at improving teacher quality. Using this economic approach, the government has implemented two types of investment in teacher quality: teacher evaluation and teacher compensation. Teacher evaluation results will provide information about teacher competency deficiencies and will be used as input for teachers' specific professional development plans. However, when considering resource allocation strategies for improving teacher quality, the extent to which investment payoff is dependent on the closeness of the conceptual link between the teacher training and the knowledge and skills needed and used in the classroom is unclear.

SUTEP see the new teacher career law as a top-down policy created by the Government and educational authorities and question the legitimacy of World Bank influence on teacher quality policies in Peru (SUTEP, 2012). Teachers protest that the real purpose of the Law is to privatize education, massive dismissals and salary cuts. Critics of the neoliberal approach are concerned about the connection of schools to a market place, especially the global capitalist market, and the labor needs and processes of such a market.

Organizational Justice Theory proposes that a person's motivation is based on what individuals consider to be fair when compared to others (Redmond, 2010). The

theory recognizes that motivation can be affected through an individual's perception of fair treatment in social exchanges. For the purpose of this study, procedural justice was utilized as the primary focus for judging the fairness of the performance pay evaluation process. Teachers' opposition and resistance over issues of fairness and equity in the evaluation process and the sense that government is ignoring the problem were the most remarkable findings in this study. The main causes of resistance for both groups (more and less experienced) were ending tenure and the risk of losing their benefits as a result of unfair evaluation procedures. Under the new CPM, tenured teachers would be dismissed if they do not reach the minimum score in professional tests. Salaries would vary according to the tier. Top performers could make twice the salary of the lowest-paid teachers, who could be paid the minimum teacher salary, which is as low as \$350.00 per month. Data from the interviews revealed that when teachers compared themselves to people from other professions, they felt that they were not being compensated fairly and therefore demanded to be justly compensated.

Teachers' perceptions and beliefs in regards to what is and what is not fair affected their motivation, attitudes, and behaviors. Teachers' perceptions that the government is using unfair evaluation methods contribute to conflict and a stalemate at the bargaining table. Procedural justice plays a role in the teacher-government conflict in Peru when teachers perceive that they did not have a voice in policy decisions that affect their work. Procedural justice can also explain the differing levels of importance attributed by teachers with differing amounts of experience to the idea that financial incentives are the cause of teacher resistance. Although there was significant difference



between groups, neither group was motivated by *financial incentives* based on *test scores*. Teachers with more years of experience tended to assign a low degree of importance to financial incentives based on test scores when compared with teachers with less years of experience. The same result was found for the issue of financial costs of the implementation of the law.

These findings beg the question of whether or not teachers regulated by the Ley del Profesorado think they are fairly paid. Clearly, the long history of strikes in Peru has demonstrated a strong belief that the current system is unfair. Storey (2000) hypothesized that perceptions of procedural justice are likely to be improved if people are given the opportunity to present information and voice their concerns before decisions are taken. SUTEP representatives confronted government officials with questions about the change in procedure and argued that government legislation violated teachers' collective bargaining rights as outlined in the previous Ley General de Education.

Herzberg's Two-Hygiene Factor Model was used to explain teachers' overall opposition and resistance to the new CPM law. Hygiene factors that caused teachers' dissatisfaction are extrinsic and are linked to high levels of compensation, fear of losing their jobs (dismissal of failing teachers), political interests and corruption, poor working conditions, lack of effective leadership, poor quality of leadership, and the conflicting relationships with government. According to Herzberg, these factors do not motivate teachers. However, when they are missing or inadequate, hygiene factors can cause serious dissatisfaction. When teachers in Peru have the option to choose to work for a high salary in schools located in poorest areas and to work for an average salary in

schools in urban areas, teachers tend to choose urban schools. Motivators or satisfiers, such as engaging in duties of more responsibility, job satisfaction, professional recognition, student achievement, and opportunities for professional growth have the function of preventing teacher job satisfaction.

Herzberg's theory does not place dissatisfaction and satisfaction at opposite ends of a single, unbroken continuum, but rather considers satisfaction and dissatisfaction as separate dimensions. Herzberg made a major contribution to the field of work motivation, but the idea of separate and independent factors (Locke, 1976) may not be logically and empirically defensible in the education sector. Crouch (as cited in Vegas, 2005) has shown how institutional factors may affect teachers' jobs. Crouch presented an elaborated discussion of the institutional weaknesses in the implementation and development of incentives and their consequences for the teaching profession. Crouch argues that the lack of regulatory development guided by law is historically the main impediment to the successful implementation capacity of incentive policies in Peru.

### **Implications for Policy**

Results of this study and the review of economic, organizational behavior, and motivation theories have implications for the design and implementation of investment policies targeted at improving teacher quality. The implementation of a new evaluation system and merit based pay plans created a conflict of interest which caused teacher resistance and consequently, the enactment of a new law. This study shows a disjointed portrait of concerns about the individuals' rights in the education sector. On the one hand, SUTEP' views of teachers' rights regarding evaluation linked to pay plans are quite

controversial. SUTEP demanded the right to have a fair evaluation and cost-of-living-adjustment increases in their salaries (Cuenca, 2011). SUTEP also demanded the amount of 30% of their salaries for class preparation done at home, as promised by previous laws. Educational authorities claimed that it is the children's right to have qualified teachers and receive a quality instruction. While the debate on teachers and children rights rages, independent scholars question how well SUTEP reflects the views of the teachers they represent?

A significant challenge emerges from the lack of a solid conceptual framework for understanding teacher resistance and compliance to new policy as a whole. The lessons learned from Procedural Justice Theory, reviewed earlier, suggest that the fairness of the evaluation pay process was instrumental in teachers' resistance. The union opposition to the CPM and Ley de la Reforma Magisterial was mainly based on concerns over evaluation procedures and meritocracy. Although the CPM was the result of a large number of consultations with the most influential educational experts of the country, no SUTEP delegates participated in these consultations. Without technical capacity for social dialogue and lacking the political conditions to build consensus, SUTEP plays a critical role in opposing the government reforms and causing values resulting in confrontations and resistance. Palamidessi and Legarralde (2006) characterized the conflict between the union and the government in Peru as political-ideological, questioning the practice of privatization and the influence of international organization in the education sector. SUTEP disagrees with the introduction of performance evaluation

systems, perceiving these as control mechanisms that establish rewards and dismissals, while undermining common interests.

From a technical standpoint, investment in teachers' human capital research has found that tracking "investments" in teacher quality is limited and problematic (Plecki, 2000). Policymakers take for granted that the incentives they allocate will improve the effectiveness of teachers (Plecki, 2000; Milanowski, Heneman III, & Kimball, 2011). These capabilities are further assumed to impact on student learning. However, the conceptual basis for measuring the relationship between the teachers' inputs and the productivity of these inputs is loose. Research on investments on teacher quality should address the following question: "How much and in what ways incentives influence teacher performance and student learning?" (Plecki, 2000; p. 7). Most educational leaders and government authorities in Peru believed that it would be unfair to pay teachers the same when all them don't put forth the same effort. Some teachers consider that financial incentives were awarded to teachers than did not deserve such incentives. Apart from the credibility and unfairness issue, some teachers view merit pay plans as divisive, promoting competition that is counterproductive to a collaborative atmosphere and having a demoralizing effect on non-recipients. Results also suggest that it is imperative to improve the accuracy and validity of teacher tests, as well as to develop and evaluation criteria that are succinct and concise, denoting exactly what is expected of teachers.

Despite Herzberg's emphasis on the fact that motivation can only be achieved by the motivators, modern research has found it truly wrong in his approach to link job satisfaction and job dissatisfaction to different factors. Findings of this study show the

same results. Agreement with evaluation procedures, recognition and opportunities for professional development and professional autonomy were identified as the most important factors that contributed to compliance in this study, and therefore, can be identified as motivators. However, relations with colleagues, teacher tenure, and working conditions cannot be ignored, nor can the government policies that generated, in most on the cases, opposition and resistance. Arguably, the CPM and the new Ley de la Reforma Magisterial represented the government's effort to increase opportunities for professional development and improve teacher quality; however, without a consensus on the goal and purpose of the system, as suggested by respondents in this study, teachers' reactions are not difficult to predict.

Findings of this study suggest that even though teachers rejected content knowledge tests as unfair methods for evaluating quality, they value evaluation for the legitimacy of their profession. What can teacher evaluation do to financially reward quality within this kind of context? How can teachers be motivated to take evaluations? Teachers' strong opposition and resistance to the way the evaluation process was implemented suggest a number of hindrances in policy implementation in Peru. Many teachers were concerned about the fairness of the evaluation procedure and of the applicability of the teacher tests. The renewed interest in the inclusion of merit pay in the evaluation system, heralded by the Peruvian government as the means to achieve the desired end and providing the requisite incentive for superior teacher performance has proved to be problematic (Rivero & Vexler, 2012).

Evaluation systems that help teachers improve and that support timely and efficient personnel decisions have been extremely helpful. Successful systems use well defined standards of teacher performance and multiple classroom observations across the year by expert evaluators looking at multiple sources of data and provide timely and meaningful feedback to the teacher (Darling-Hammond, Amrein-Beardsley, Haertel & Rothstein, 2011). Surveyed and interviewed respondents in the study expressed that there was no clear consensus of what actually defines “best teachers.” Although there is an extensive documentation to show how policymakers define and understand the differences in teacher quality, effectiveness, and performance (Liston et al., 2008; Hinchey, 2010), there are disagreements on the specific teacher qualities that contribute to student learning. Added to this complexity is lack of consensus on exactly how the “best teachers” can be objectively scored. It is puzzling that there is little to no consensus about the purpose of the evaluation process. This finding may be due to the lack of standards and accountability system in Peru. More clearly the missing evaluation criteria substantially diminished the likelihood of challenges to personnel decisions that are based in whole or in part on performance evaluation (Hunt, 2009; Esser, Weickenberg, & Feder, 2004). According to Ingvarson and Chadbourne (1997) “incorporating standards into evaluation practice provides the necessary reference point to developing a supportive culture of teacher appraisal and evaluation in schools” (p. 27).

The finding that there was no significant difference in the level of importance assigned to teacher tenure and teachers’ benefits and rights should not necessarily be viewed as reflecting negatively on merit pay programs. Teachers’ lack of motivation to

take competency tests and comply with the law is related to the nullification of tenure and rights. Teachers' motivation was decreased, as evidenced by the long periods of strikes since the enactment of the CPM. Strikes demonstrate teacher dissatisfaction in bargaining and have the potential to disrupt the educational system (Herzberg, Maunser, & Snyderman, 1959). Avalos and Assael (2006) proffered that the possibility of being evaluated produces anxiety in teachers and feelings of victimization, especially if the process is publicly presented as a strategy to deal with unsatisfactory student learning results. It is also important to note that, even though the majority of teachers (80%) do not believe that any standardized test will ever adequately assess what they do in their class, 30% of them would *agree* or *strongly agree* with the evaluation itself. Similarly, Richard Murnane and his colleagues posited in their 1991 book, *Who will teach?*, that teachers tend to oppose top-down policy. Coggs et al. (2009) contended that teachers' perceptions of evaluation and compensation reforms are the most essential component for the legitimacy of the reforms as they are implemented.

Ultimately, the responses of teachers in this study and others indicated that teachers believed they deserved incentives to work hard. Although the Peruvian teacher pay plan has been touted as "merit pay," it is really a hybrid system that awards teachers additional compensation based on four types of evaluations: a national entrance assessment for first appointment at the public sector, classroom observations, career advancement assessment, and assessment for administrative positions. In practice, only the first type of evaluation is in effect; the other 3 will be implemented at a future date due to the current budget restrictions.

## **Recommendations**

Government and school administrators at national, regional, and local levels in Peru can have a great impact on motivational factors encouraging teachers to comply with policies that would improve the quality of education. While teacher policies in Peru are complex and difficult to implement, there are some generally agreed upon responses that may help to overcome this resistance. Agreement upon the purpose of the evaluation, public sharing, and adherence to the purpose and scope of the evaluation will help to establish the foundations for the success of the reform. Research presented in this study also suggests that in order to achieve these goals policymakers and educational administrators who have authority over the design and implementation of teacher policies will gain teachers' support if they establish conditions conducive to social dialogue and political exchanges in order to avoid opposition and resistance. Although intended to motivate teachers to improve performance, the evaluation-based pay plans designed by the government of Peru were perceived by teachers to be unfair. While some teachers appeared to be more willing to accept pay alternatives, the overwhelming majority didn't. Both government and SUTEP will need to find a way to reward teachers for their work. The challenge will be to find a meaningful way of differentiating compensation for teachers while maintaining the perception of fairness and justice.

One unexpected finding in this study was that teachers support evaluation and merit pay, believing that better paid teachers could have a great impact on student achievement. More experienced teachers were more concerned than less experienced teachers about financial incentives based on test scores and the sustainability of the



financial costs. These findings suggest that teachers favor merit pay plans as a way to improve performance. These findings also suggest that issues related to the fairness in the evaluation process and the distribution of rewards need further research. Further research to examine the sources of these differences would be beneficial in the design of future compensations plans in Latin American countries.

Future studies should therefore focus on how to accurately quantify and qualify the impact on individual teacher may have on the academic performance of students in Peru. Comparison of perceptions of teachers from the three different regions of the country should be made regarding attitudes and perceptions about evaluation and merit pay plans, this would generated a nuanced understanding of opinions throughout the country. Furthermore, research should be conducted to gain insight on whether motivating factors will change for veteran vs. less experienced teachers. Perhaps large-scale studies, using random samples, could probe more deeply into understanding how teachers are motivated.

## **Conclusion**

Governments in Latin America are trying to improve their teacher evaluation systems without referencing many of the findings that are supported by research for effective teacher evaluation. Considering the findings in this dissertation, further studies are necessary to determine how these policies impact teachers' perceptions as measured by specific questions on the Teacher Evaluation Individual Survey. The findings in this study also illustrate in the Peruvian context many tenets of contemporary research about

teachers' disagreement on the introduction of evaluation linked pay plans, which are perceived as control mechanisms.

In addition to establishing salary increases and penalties for teachers who fail the tests, teachers subverted reform efforts by modifying the new assessment tools so that they fit more closely with practice-based beliefs. These examples identify some of the existing incongruities between thinking about assessment and the reform philosophy advocated by the government. While teachers held to a practice-based view of assessment, reform leaders espoused a performance-based philosophy that coupled with financial incentives and advancement through a career ladder. Had this dissonance been identified early in the process, perhaps it could have been debated and considered in a more meaningful way. Such a public statement of belief and the subsequent debate might have informed teachers' thinking so that they could have used the new assessments in ways that support evaluation reform.

As the educational policy reform agenda continues to define what it means to be a good teacher, educator evaluation remains a highly controversial subject in Peru and elsewhere in the world. Empirical research has demonstrated mixed evidence about its effects on student learning and teacher quality. Thus, an important open question of our time is what implications for practice various iterations of teacher evaluation systems will have on teacher motivation and student success.

## APPENDIX A

### **Teacher Evaluation Individual Survey**

**Purpose:** The purpose of this survey is to obtain information from teachers who are certified by the Nueva Carrera Publica Magisterial (CPM) and teachers who are not. All information collected in this survey is confidential and responses are anonymous. The data obtained in this survey will be used as the basis for a dissertation being completed at the University of Texas at Austin, U.S. involving perceptions and attitudes about the teacher evaluation process.

## **Teacher Evaluation Individual Survey**

### **Instructions**

This scale is designed to gather information about teachers' perceptions regarding the new teacher evaluation as a part of the New Teacher Career Law in Peru. Please respond to each question below.

### **General Information**

How do you describe your current position in education?

Contract teacher ☐

Permanent teacher ☐

Are you certified by the new Ley de la Carrera Pública Magisterial ?

Yes ☐ No ☐

Which best describes the total number of years you have been employed as a professional educator?

☐ Less than 10 years      ☐ 11 to 20 years      ☐ 21 or more years

## SECTION I

### Teacher Evaluation Process

On the scale from 1 to 5, mark the number that best represents your response to each statement below.

1=Agree 2=Disagree 3=Neither Agree Nor Disagree 4=Agree 5=Strongly Agree

	Factors	1	2	3	4	5
01	The evaluation process has done a good job in defining the best teachers.					
02	I have a good understanding of the purpose of the teacher evaluation process.					
03	The teacher evaluation test rubrics are clear and correct.					
04	Reaching the minimum score on the teacher evaluation tests will really help teachers to improve their professional performance.					
05	The new salary schedule would help teachers to improve student achievement.					
06	A teacher performance appraisal system would motivate teachers to work hard and improve their performance.					
07	The contents on which teachers are evaluated correspond to their level of education (pre-school, elementary, secondary) and teaching specialization.					
08	The evaluation committee members are qualified to evaluate teaching quality in the second stage of the evaluation process of the Ley de la Carrera Pública Magisterial.					
09	The mentoring and feedback that teachers have received from the Ministry of Education evaluators, if any, is satisfactory.					
10	The teacher evaluation process allows teacher to advance fairly through the five levels of the new teacher career structure and contribute to teachers' professional development.					

## SECTION II (For teachers certified by La Nueva Carrera Pública Magisterial)

### Factors of Teachers' Compliance to the Nueva Ley de la Carrera Pública Magisterial

Please circle the number for each item to indicate the level of importance you assigned to the factors that contributed to your decision of taking the teachers' competency tests to be certified by the New Teacher Career Law.

1= Not Important 2=Little Important 3=Important 4=Very Important 5=Extremely Important 6=No Applicable

	Factors	1	2	3	4	5	6
11	Teacher career ladder based on incentives.						
12	Competitive salary.						
13	Salary benefits package.						
14	Merit-based increments based on competency exam scores.						
15	Professional recognition of teacher advanced degrees, research, specialization, and abilities.						
16	Professional recognition of past appointments, intellectual productivity, distinctions and honors.						
17	Years of experience as a professional educator will be considered for career advancement.						
18	Opportunities for professional development and to improve academic qualifications.						
19	Professional support after being certified to improve performance.						
20	Professional autonomy to advance from Level I of La Carrera Pública Magisterial to the levels II, III, IV and V.						

### SECTION III (For teachers not certified by the Nueva Carrera Publica Magisterial)

#### Causes of Teachers' Noncompliance to the Nueva Ley de la Carrera Pública Magisterial

Please circle the number for each item to indicate the level of importance you assigned to the causes that contributed to your decision of not participating in the teacher evaluation process to be certified by the New Teacher Career Law.

1=Not Important 2=Little Important 3=Important 4=Very Important 5=Extremely Important 6=No Applicable

	Causes	1	2	3	4	5	6
21	Salary increased based on teachers' score data based on competency exam scores.						
22	Ending teachers' rights and benefits (bonuses) and tenure-like job protections.						
23	The financial costs of the law implementation and its sustainability in the long-term.						
24	Teachers taking competence exams every three years.						
25	Teachers' tests lack of validity and reliability.						
26	Teachers failing the exam three times will be dismissed.						
27	Teacher test scores' don't reflect teachers' performance in the classroom.						
28	The law was signed without teachers' consultation and negotiation.						
29	Teacher financial incentives undermine teachers' collegial atmosphere and teacher union's membership.						
30	Principals, existing teachers, and parents will have something to say in teachers' hiring and promotion.						

## **APPENDIX B**

### **Teacher Interview Questions**

1. Do you think the new evaluation process will identify the best teachers? Explain your answer.
2. Do you think all teachers should be required to participate in the new evaluation process? Why or why not?
3. Talk to me about what you believe the purpose of the new teacher evaluation process is in terms of the overall outcomes for participants?
4. Talk to me about your motivation about the new evaluation process. Tell me why you decided to participate (or not participate) in this process?
5. What is your opinion of this process as a voluntary certification of teachers?
6. In your opinion, how would an average teacher have handled this process? Talk to me about the skills, knowledge, behaviors and attitudes they might need to pass the exam?
7. Will financial incentives make teachers more effective?
8. Do you feel you are more motivated to teach now than before participating in the evaluation process? Explain.
9. Talk to me about what new knowledge you believe you gained from your participation in the teacher evaluation process as part of the Nueva Ley de la Carrera Publica Magisterial.
10. How do you think that your participation in the teacher evaluation process impacted your classroom teaching practices?



11. What is your opinion about the value of the teacher evaluation process and how it impacts school environment?
12. Do you believe that incentives would reduce collaboration and positive school culture?
13. How does teachers' resistance affect the goals of the reform?

## APPENDIX C

### Interviews

#### Labelling the Data: Resistant Teachers Interview Transcripts

Interview 1	Theme Code
<p>“The new evaluation system for teachers centers on misconceptions about teacher quality, with potentially negative impact on professional development. We believe it is our moral obligation to teach with quality. The proposed teacher evaluation not only lacks a sound research basis, but in some instances, it has already proven harmful. The evaluation promoted by the CPM is based on an unconstitutional law. The system was not based on how well teachers can teach, but rather on the preservation of the contract regime to avoid budget constraints. Now, with the new Ley de la Reforma Magisterial, it is mandatory for all teachers to pass competency exams, and government has made it clear that the prescribed pass mark in these tests would not affect teacher tenure. This is not at all true, teachers who do not reach the minimum score after the third try will be dismissed. It is my position that there will be no restriction on the number of attempts a teacher can make to advance up the scale.”</p>	<p>10.1</p> <p>1.3</p> <p>3.2</p> <p>8.1</p>

Interview 2	Theme Code
<p>“Although the CPM represented one of the most significant efforts of the government for the improvement of the teaching profession, the poor management and administration of the law during Garcia’s government is regrettable. The CPM is a law that existed along with the Ley del Profesorado. The tests were full of mistakes. For example, teachers who failed in one test one year, got the highest scores the following year. Teachers’ lack trust in government policies, and lack of understanding of the evaluation purpose. If the scores truly measure a teacher’s quality, there should be an independent institution to prepare and manage the test results. Teachers who passed tests knew them in advance. Further, taking part in the evaluation process has made teachers lose their rights such as teacher tenure, years of experience, status on the teacher career structure. Teachers are not prepared for change.”</p>	<p>11.3</p> <p>2.1</p> <p>7.1</p> <p>7.2</p> <p>11.1</p> <p>11.2</p>

Interview 3	Theme Code
<p>“As a teacher, I want to know what my weaknesses are so that I can improve, but the test scores currently in use don’t do that. We did not have any feedback, it was an unrealistic and dishonest way to evaluate teachers. We should have received training before evaluation, focusing on the evaluation contents. The evaluation must include a personal observation of the teacher in the classroom. At the end of the evaluation, a teacher should receive proper feedback. The evaluation also needs to include a description of the teacher’s strengths and areas in need of improvement. If a tenured teacher fails the exams, the Ministry of Education is required to prepare a remediation plan to correct the deficiencies. If the deficiencies persist, teachers will receive a new remediation plan. Teachers are expected to pass. If the score is still unsatisfactory at the end of the second remediation period, the teacher must be dismissed. This law represents a legal framework for unfair teacher dismissals.”</p>	2.3
	6.3
	6.3
	6.4
	8.2
	8.1

Interview 4	Theme Code
<p>“Teachers who are tenured must be evaluated at least once every other year in order to advance up the career ladder. All evaluations are to be made by a certified university, but our educational system does not have either a teacher performance evaluation system or experts in the field of teacher evaluation who have received proper training. A teacher merit pay program, however, is an improper and unfair method of doing this. Judiciously standardizing and enforcing the process of identifying and removing underperforming teachers should, I believe, be discussed at the bargaining table with all the stakeholders in play. Because a merit pay program will create a reduced number of teacher positions in each stage of the career structure, a few teachers will be recognized as the best and the rest as inferior.”</p>	11.1
	5.4
	2.2
	5.4
	11.1

Interview 5	Theme Code
<p>“Teachers aren’t opposed to being evaluated and being held accountable for their performance in the classroom. Teachers’ test results show that they responded to the questions in an objective way, but the results were manipulated by political interests to favor some teachers. This is only one side of the problem. On the other side, what we are opposed to is to being evaluated with unfair methods and flawed tests. None of the tests that have been designed so far are valid or reliable. We don’t believe in standardized tests. The measure of teacher effectiveness has been shown to be valid only in the classroom. What is worse, in schools in which the CPM has been implemented, student achievement has actually flat-lined or gone down. The evaluation policy did not attain its goal. One critical issue in the current government administration in implementing merit-pay plans is defining “merit” and what should be rewarded: teacher subject knowledge or teacher performance in the classroom? I wonder about the student achievement. Compensation plans that reward teachers based on test scores are counterproductive leading to unhealthy competition.”</p>	<p>1.5 2.2 2.3 2.2 5.4 4.1 2.5 5.4 4.1 12.1</p>

### Labelling the Data: Compliant Teachers Interview Transcripts

Interview 1	Theme Code
<p>“Current teacher tests can be used to identify good and effective teachers. Knowledge-based test scores are good predictors of teaching quality. Assessments selected the best teachers and allow me to be more prepared for the new education approaches and theories, they also allow me to have a higher salary. Teachers who passed the tests were the more prepared and more experienced teachers. More rigorous tests, such as those which measure higher-order thinking skills are likely to be better at differentiating teachers, but even the current tests that the government is using are valuable in identifying effective teachers. Once these scores will be combined with teachers’ observations in the classroom, they will provide more detailed and timely feedback to help teachers improve their practice. Teachers in Peru are already underpaid. Merit pay would help address this injustice. Teaching is due for financial recognition, support, and respect in this country. I support meritocracy and I strongly believe that the highest performing teachers should be first in line for this financial recognition.”</p>	2.5
	2.4
	5.4
	6.3
	5.4
	5.3
	6.1

Interview 2	Theme Code
<p>“I believe that all teachers should participate in the evaluation process of the CPM. Because of the large number of teacher preparation institutions, some of these degrees and diplomas are quite suspect and the quality of training imparted by the Ministry of Education is sub-standard, making it impossible to assess the relative merits of teachers at the time of their first appointment. The CPM represents a benchmark of teacher quality in the evaluation process. Teachers will work harder and produce better results, but the simple possibility of extra cash would not likely translate into smarter teaching and better results for our children in the short term. I believe policymakers should consider using merit pay as a tool to recruit and retain effective teachers, but only under certain conditions. For example, when communicating the advantages of the CPM, teachers do not have a clear idea of what merit pay is, what the payout scheme is, and how it is being translated in the new career structures. Teachers also lack a clear understanding of what is expected from them. Teachers also fear tests and fear that the newly designed merit-plans would create unhealthy competition among teachers. The financial incentives are fairly high and would improve our quality of life, but how do we assure that teachers who passed tests are focusing on student learning? The law does not consider any provision that links merit pay plans with student achievement.”</p>	<p>3.1 1.2 6.1  4.1 5.2 10.2 10.3 1.1 12.1 4.1</p>

Interview 3	Theme Code
<p>“I supported teacher evaluation and the CPM. I strongly believe that the only way to improve teacher quality is by training and support. However, in my school there are teachers who passed the tests but are incompetent or ineffective in the classroom; I agree that they should be removed. A fair way to assess them is by their performance in the classroom. I doubted that the CPM was beneficial for our professional development. Without a reliable evaluation system and an established procedure for removing underperforming teachers, I did not feel very optimistic about the new bill. I believe that if we want a change in teacher attitudes, financial incentives will help teachers to respond to the challenges and exigencies of the future.”</p>	<p>5.1 5.2 5.1 5.3</p>

Interview 4	Theme Code
<p>“In spite of being certified by the CPM, there are neither salary increases for teachers nor advancement in student achievement. Teachers’ job satisfaction starts with improving social status, improving student achievement, quality of life, better employment opportunities, and, most importantly, better opportunities for professional development. The poor working conditions undermine teacher motivation and the excitement of being under a new appraisal system. Parents do not support teachers’ jobs.”</p>	<p>4.1</p> <p>11.1</p> <p>4.2</p>

Interview 5	Theme Code
<p>“Teacher evaluation is critical for improving our educational system, but the actual process of determining who deserves the merit pay is highly politicized. Because the current pay system does not include monetary rewards directly tied to effectiveness, many ineffective teachers are certified under this law. I agree that more compensation will make better teachers, but with better working conditions. Good teachers have to have other duties outside the classroom to increase their compensation. If teachers can apply for an administrative position with higher pay, it would be a great opportunity for their professional development.”</p>	<p>5.1</p> <p>5.2</p> <p>5.1</p> <p>5.3</p>

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This manuscript was typed by the author.