



Graduate School of Development Studies

**DESCRIBING THE PARTICIPATION IN EDUCATION:
The Influence of Participatory Management on the Academic
Outcomes in Public Primary Schools in Peru**

A Research Paper presented by:

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(Peru)

in partial fulfillment of the requirements for obtaining the degree of
MASTERS OF ARTS IN DEVELOPMENT STUDIES

Specialisation:
Public Policy and Management
(PPM)

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The Hague, The Netherlands
November, 2008

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Acknowledges

I would like to express my special gratitude to Jos Mooij and Arjun Bedi who patiently guide and support this paper in all this stages.

A special acknowledge to Fanni Muñoz and Lars Stojnic for providing the database and valuable information about the DFID's project, and to Liliana Miranda who facilitated the database of Peruvian Ministry of Education.

Finally, I would also like to thank to my discussants and colleagues for their useful comments, edition and breathe in all this process.

List of Acronyms

APAFA – Parent Association

EDUCO – Educación con la Participación de la Comunidad

EFA – Education for All

DFID – Department for International Development

GTZ – German Agency for Technical Cooperation

LLECE – Latin American Laboratory for the Assessment of Education Quality

MECEP – Primary Education Quality Project in Peru

MINEDU – Ministry of Education

OECD – Organization for Economic Cooperation and Development

PISA – Programme for International Student Assessment

PLA – Participatory Learning and Action

PRA – Participatory Rural Appraisal

PROHECO – Programa Hondureño de Educación Comunitaria

SBM – School-based Management

SB – School Board

SERCE – Second Regional Comparative and Explanatory Study

SCALE – Statistics of Education Quality

UMC – Unidad de Monitoreo de la Calidad Educativa

UNESCO – United Nations Educational, Scientific Cultural and Organization

UNICEF – United Nations Children's Fund

UPE – Universal Primary Education

USAID – United States Agency for International Development

Abstract

National and international literature about Peru shows that one of the most significant results in education has been a rapid progress towards universal enrolment at the primary level, but with poor results in quality and equality.

Because deficient management has been attributed as one of the most relevant reasons to this problem, participatory management has been implemented with the goal of improving the quality of teaching and learning. This research tries to respond to two main questions related to this new international school-based management approach and its impacts on the quality of education: i) how does participatory management influence academic outcomes?; and ii) what functions of participatory management have an impact on academic outcomes?

This research also analyzes why there are not conclusive results about the relationship between participatory management and school effectiveness. This paper shows that participatory management has a moderate effect on academic outcomes; being its more significant function the vigilance of teacher's attendance.

Keywords

Education, participation, quality of education, participatory management, academic outcomes, school-based management

Chapter 1

INTRODUCTION

Universal primary education has been achieved in Peru. However, this has meant a paradox; nowadays, schools in Peru are institutions that produce en masse students with poor cognitive and attitudinal skills. Participatory management through school-based management could be a solution for improving quality of education; nevertheless, there is no substantial empirical evidence to support this effect. Is participatory management truly the panacea for quality education? This paper intends to separate the wheat from the chaff about the benefits of participation on the quality of learning.

1.1 The Background

Quantity sacrificing quality and equality

In 1990, the global movement Education for All (EFA) was launched with the objective of providing quality basic education for all children (UNESCO 2008). In 2000, 164 countries, including Peru, together with partner institutions adopted a Framework for Action focusing on the achievement of six EFA goals (UNESCO 2007: 14); two of them pertaining to the achievement of universal primary education (UPE) and improvements in education quality. A rapid progress towards universal enrolment and gender parity at the primary level is one of the most significant results in most countries (UNESCO 2007: 42-44). Particularly in Peru, the gross enrolment ratio¹ is higher than the average in Latin America (Cotlear 2006: 4,Crouch 2006: 71, 75, 2006b: 631,World Bank 2007: 1): 60% in preschool, 116% in primary and 82% in high school. In other words enrolment rates in Peru are high (see figure 1), almost similar to developing countries (Cotlear 2006: 5).

However, there is a growing consensus regarding that quality of education is what must be improved, especially in public schools and above all for poor children. Given the difficulty of defining quality education, a frequently used proxy is learning achievement on some standardized tests (World Bank 2007: 3). Regarding it, an increasing number of international, regional and national assessments report low learning outcomes in Peru (Crouch 2006: 75, 2006b: 632-635,PREAL 2006: 6-7,UNESCO 2007: 70-71); in other words, the difference between percentages of enrolment and level of learning is significantly high (Cotlear 2006: 4,Crouch 2006: 71,World Bank 2007: 6).

In 2000, the international PISA exam revealed that students in Peru performed poorly in math and reading, having the lowest score among 41

¹ Net enrolment is the proportion of children in age for primary education who are enrolled in primary schools. Gross enrolment is the proportion of children enrolled in primary schools. Percentage above the 100% indicates that there are more children in primary schools than the population between 6 and 11 years old expected for primary level education. It means that there are children above 11 years old studying in primary schools; in other words, the high percentage of gross enrolment means high rates of repetition.

participating countries (PREAL 2006: 31-32, World Bank 2007: 3). While Peruvian students obtained 327 as score, the average score in Latin America was 411 and 500 in the OECD countries (Crouch 2006: 75, PREAL 2006: 31). The most recent evaluation conducted by LLECE in 16 countries in 2005 shows that Peruvian students of third and sixth grade of primary school exhibit mean scores lower than the regional average in math, language and natural science (LLECE 2008: 21-44). National evaluations confirm these results (PREAL 2006: 7). For instance, in 2004 the National Assessment conducted by the Ministry of Education of Peru revealed that hardly 15% of 2nd grade primary school students comprehend what they read and only 10% are able to solve basic math problems (MINEDU 2005: 15-17). Similar results were found in the most recent national evaluation (Figure 2). Scarcely 16% of 2nd grade primary school students perform satisfactorily in reading comprehension and only 7% in math ability (UMC 2008: 22, 45).

In short, Peru has a definite problem: it is producing large numbers of graduates with very poor cognitive skills (World Bank 2007: 6).

Figure 1
Percentage of Students Enrolled in Primary (2006)

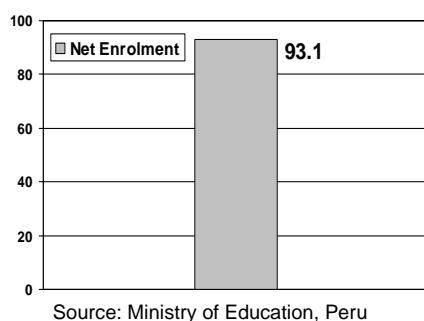
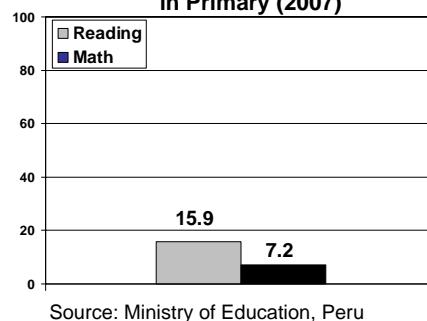


Figure 2
Percentage of Students with Satisfactory Level in Reading & Math in Primary (2007)



These poor results in Peru increase dramatically when referring to public and rural schools (PREAL 2001: 37-39, 2006). Poor children from Peru scored sharply lower on the PISA 2000 reading exam than those from richer families (PREAL 2006: 10). In fact, Peru had the worst ratio for inequality in the PISA 2000 sample (World Bank 2007: 5).

According to the Second Regional Comparative and Explanatory Study (SERCE) conducted in 2005, Peru is the most inequitable country in Latin America when comparing rural and urban primary schools (LLECE 2008: 21-44). Consequently, the quality of education in Peru is not only low; it is also inequitably provided (Cotlear 2006: 6, Crouch 2006: 71, 76, 2006b: 634, Grindle 2004: 33-35, LLECE 2008: 21-44, PREAL 2001: 37-39, 2006: 9-10, World Bank 2007: 5). Has Peru chosen the route the high quantity goals sacrificing quality and inequality?

Participation as master key for quality

Although there is no single strategy to assure effective learning, key elements include factors such as enough learning time and textbooks; skilled

and motivated teachers; effective teaching methods alongside good-quality teaching; and good learning environments (UNESCO 2007: 67-78). In addition, since the 1980s there has been a growing international trend toward decentralization by devolution of autonomy and participation of civil society in the public education system, with the goal of improving the quality of education (Cheng and Chan 2000: 206, Deem 1994: 23-24, Gamage and Pacharapimon 2004: 290, Gaziell 1998: 320, Hanson 1990: 523, Johnson 1995: 223, PREAL 2006: 14, Smylie et al. 1996: 181).

Because it is believed that people are responsible for their lives, participatory management has been considered as the master key for improving student learning. Promoted by both neoliberal right wing supporters and pro-rights left wing proponents, such policy reformation known as school-based management (SBM) is being implemented in most countries in Latin America, including Peru. The assumption is that the more participative the decision making about personnel's recruitment and resources is, the more likely to be responsive to demands and interests of the local people it will be.

Almost two decades after introducing school-based management, there is no conclusive empirical evidence about the impact of participatory management on the learning of students. In fact, many academics and researchers have started to affirm that the measure of autonomy and participation's impact is impossible to assess due to the complexity of the factors involved, and that it requires a long time to see expected results. In fact, academic outcomes and democratic citizenship depend not only on multiple internal factors but also on external factors external to the school.

Participatory management through the school-based management approach is an international strategy to improve quality of learning that has been recently implemented in Peru under a major State reform. In this sense, School Boards in Peru have assumed functions of vigilance, participation and agreement. This paper has special interest in answering 2 main questions: i) how does participatory management influence academic outcomes?; and ii) what functions of participatory management have an impact on academic outcomes?

1.2 The Structure of Paper

This paper is organized in 6 chapters. After this first chapter which contextualizes the problem, the second chapter describes the main concepts used in this paper: quality education, participation, participatory management and school-based management.

The third one analyzes the participatory management in Peru. This chapter details the evolution of participation reform and the type of school-based management implemented in the country.

The fourth chapter describes the methodology used in this research: details of databases, definition of variables, description of the sample, and explanation of analysis.

Chapter five shows quantitative analysis supported with documentary qualitative material such as laws and project reports. In this chapter, the

relationship between participatory management and academic outcomes is analyzed.

Finally, the last chapter presents some conclusions and recommendations.

1.3 The Limitations

The main limitation of this research is related to the attribution between school-based management and the dependent variable - academic outcomes. In other words, to what extent participatory management does influence the cognitive skills that students acquire.

Because secondary data is the main source of information, the paper has the following problems:

There is no control group or pre test to support attribution or causality. The participatory management's impacts on the benefited population are measured without having results of a similar control group. In this sense, the results could be produced by other variables that are not measured.

The data available about participatory management was collected in 2004. Because there is no evidence about the same aspects at present, participatory management in these schools could have been weakened or strengthened. The current academic outcomes could depend more on how School Boards are performing in 2008 than 2004.

The paper objective is to analyze the impact of school-based management on academic outcomes. Therefore, it is likely that impacts of participatory management on academic processes are not collected by databases. The school-based management could have influenced, for example, the quality of teaching, satisfaction or better environment for learning. However, measures about these variables are not available.

This research analyzes the role of the State in promoting and regulating participation of civil society at the school. Although, there is a very rich and broad experience of civil society participation in general, it is not included in this paper.

Chapter 2

THE CONCEPTS

2.1 Quality of Education

This paper defines quality of education as the cognitive and attitudinal outcomes that are obtained by students at school. These are influenced by a group of external factors such as nutritional conditions or domestic violence, and internal school factors such as pedagogic and managerial processes that occur inside the school.

The definition, of course, does not pretend to be conclusive and complete; in fact, there are many definitions for quality of education, testifying to the complexity and multifaceted nature of the concept (UNICEF 2000: 4). In effect, quality of education has become a kind of wild card in the educative context with multiple meanings, uses and justifications (Bello 1999: 46). In other words, notwithstanding the growing consensus about the necessity to provide access to education of good quality², there is much less agreement about what the term means in practice (UNESCO 2004: 29, 2004b: 5). Moreover, as education systems grow and the numbers of stakeholders and clients involved in education decisions change; the potential for misunderstanding, disagreement, and conflict regarding the meaning of quality increases (Chapman and Adams 2002: 2). Indeed, establishing a contextualized understanding of quality education means including relevant stakeholders that often hold different views and meanings (UNICEF 2000: 5). In the same sense, the concept of quality of education is also related to the model of society desired by the people.

Nevertheless, although there are different and many indicators of quality such as net enrolment ratio, ratio of teacher per students, repetition rate or completing primary education; most of the literature from international agencies tends to assume a common, but non explicit, meaning of quality that usually seems to be a measure of student achievement (Chapman and Adams 2002: 6)

Student achievement involves two principles which attempt to define the quality of education: the first one is cognitive development, identified as a major and explicit objective of all education systems; the second emphasizes the role of education in promoting commonly shared values, and creative and emotional development - objectives whose achievement is much more difficult to assess (UNESCO 2004: 29, 2004b: 5). In this sense, even though many

² Nevertheless, it is striking that although the right to education has been reaffirmed on many occasions, many international instruments as the United Nation's Millennium Declaration are silent about the inclusion of qualitative education (UNESCO 2004b: 5). It is with the World Declaration on Education for All (1990) and the Dakar Framework for Action (2000) that quality is recognized as a prime condition for achieving Education for All (UNESCO 2004b: 5).

dimensions potentially define quality education, the main aim of the school is to improve the cognitive and attitudinal learning. Both are intentional, expected effects of the educational system (UNICEF 2000: 19). They include what children know and can do, as well as the attitudes and expectations they have for themselves and their societies (UNICEF 2000: 19).

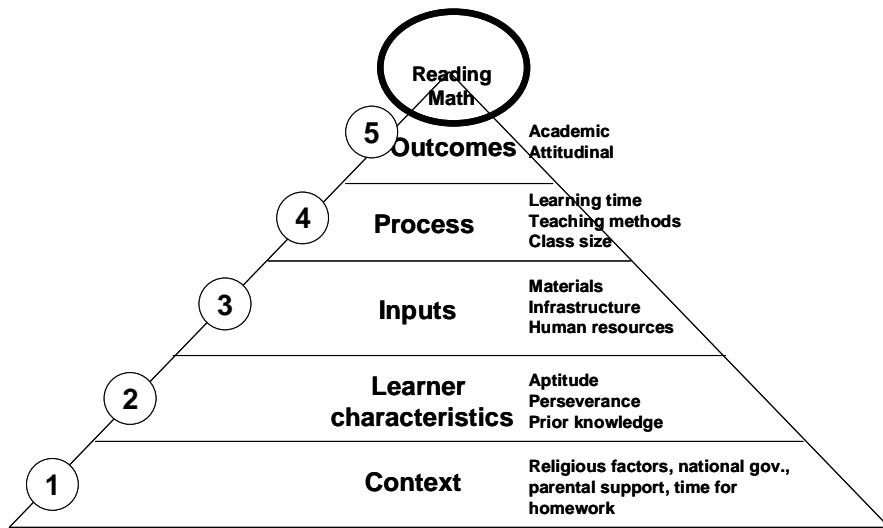
Cognitive development, academic outcome or academic achievement is the most common indicator of quality of education and it has been widely measured. Achievement in literacy and numeracy in particular represent key educational outcomes (UNICEF 2000: 19). In fact, the most important national and international measures of quality education are about reading comprehension, writing and math ability. Teaching students to read, write and calculate is often considered the primary purpose of formal education, but students' regular attendance and attention in school does not guarantee this outcome (UNICEF 2000: 19). The use of this kind of standardized test is so extensive that it is common to associate quality of education with literacy and numeric test scores; which is clearly a reductive interpretation of the concept. Some authors believe that academic achievement is often used as an indicator of school quality because it is easily measurable using standardized tests (UNICEF 2000: 20). This kind of measurement is widely valued by the liberal model that understands education as a mechanism through which demands of the economic-productive system are satisfied (García 2008: 1). For the World Bank (1999:47)- the quality of education is a function of cost-benefit in which the academic outcomes would be reached by low costs (Bello 1999: 47).

The second goal of education emphasizes its role in promoting values and attitudes of responsible citizenship and in nurturing creative and emotional development (UNESCO 2004: 2). This development includes a group of emotional skills, attitudes and values -such as citizenship or democracy- that the school should develop. Although they might be more complex and less tangible, such outcomes can be evaluated (UNICEF 2000: 20). For instance, one approach distinguishes four levels of citizenship education outcomes: first, students' knowledge of areas such as human rights, the rights of the child and governmental institutions; second, students' ability to analyze social situations related to citizenship values; third, the degree to which students are able to work cooperatively and demonstrate curiosity and autonomy (an outcome related to teachers' use of participative pedagogy); and fourth, the degree to which students demonstrate responsibility to each other and to the community (UNICEF 2000: 20). As it can be inferred, this attitudinal development is an important component for the Humanist movement³; and behind it is the main aim thought for the school: integral development that includes intellectual knowledge but also a development as individuals and citizens (Andrade and

³ Under the Humanist perspective, all people are born equal, subsequently, inequality is a product of the environment (UNESCO 2004b: 6). This approach argues that equality is affected by social, cultural and economic factors, in consequence, to guarantee equality is necessary to offer a public education that compensates these inequities (García 2008: 2). The strategy would be focused on the teacher: recruitment, training, work conditions and power decisions (Bello 1999: 47).

Rios 2007: 17). While humanists establish that productivity should not outshine the quality, the neoliberals consider both relevant.

Figure 3
Dimensions of Quality of Education



Source: Elaborated based on UNESCO 2004:31, UNICEF 2000:4

Other dimensions would be considered as functions for academic outcomes as they can be appreciated in graph 3. For instance, a UNICEF (2004:31) framework recognizes five dimensions of quality: learner's characteristics, environment, content, processes and outcomes (UNESCO 2004: 31,UNICEF 2000: 4). Similar dimensions are considered by Chapman and Adams (2002:2) who affirm that when examined within context, education quality apparently may refer to inputs, processes, outputs and outcomes. Finally, UNESCO (2004:35) also establishes five elements: learner characteristics, context, inputs, teaching-learning process, and outcomes. Note that learner characteristics and context are dimensions external to the school. In this sense, for some authors the question about the role of the school is whether it can develop learning considering the poor pre-conditions of the students enrolled such as bad nutrition and domestic violence among others.

How can quality education be studied in light of these very different approaches and dimensions? Returning to the objectives of cognitive development and nurturing particular sets of values, attitudes and skills that are important aims of all education systems (UNESCO 2004b: 6). Nevertheless, because there are no measures about attitudes or values inculcated by schools, this paper focuses its analysis in cognitive learning, specifically in reading comprehension and math ability.

2.2 Participation⁴ in Education

Participation became a must in the 90's as a response to the shortcomings of the top-down development approaches (Cooke and Kothari 2001: 5). One of the primary problems encountered by institutions deliberating over participation has been the lack of consensus about the meaning of participation. Indeed, participation has many definitions (Barbosa 2007: 6,Mohan 2002: 50,Musch 2001: 21,Naik 2006: 16,Plummer 1999: 3,Uemura 1999: 2) and it is used widely, from international cooperation to international banks. For example, the World Bank defines participation as a process through "which stakeholders influence and share control over their own development initiatives, decisions, and resources which affect them" (World Bank 2008)⁵. According to DFID, participatory approaches take into account the views and needs of the poor, and tackle disparities between men and women throughout society (Long 2001: 14). For GTZ, participation is seen as "the active involvement of citizens in all decisions that affect their lives, and it is a key condition for a functioning democracy and for poverty reduction" (GTZ 2008)⁶.

The definition that has become widely-used is that people have the right to participate in decisions that affect them; in this sense participation is defined as active involvement of people in decision-making about implementation of processes, programmes and projects which concern them and over which they previously had limited control or influence (Cooke and Kothari 2001: 5,Musch 2001: 21,Shaeffer 1994: 15). In this case, participation is seen as a form of *decentralization* of decision-making. Other definitions relate it to *empowerment*. In this case, the definition is related to local or poor people being key actors to

⁴ In the early 1970s, the work of Paulo Freire became known around the world (Eiguren 2006: 29,Long 2001: 7,Mohan 2002: 49). His theory was based on the conviction that every human being, no matter how ignorant, is capable of looking critically at his world, and that provided with the proper tools, he can gradually perceive his reality and deal critically with it (Long 2001: 7). Since mid-1970 participatory action research and rapid rural appraisal was developed by NGOs as a quick and inexpensive way to involve poor people in gathering data for project design (Long 2001: 7). By the latter half of the 1980s, international donors became open to the participation of the poor in development (Eiguren 2006: 30,Long 2001: 8). In 1990, in the Jomtien Declaration (1990), international organisms such as World Bank, GTZ and DFID set up participation as a priority action in the diagnosis, design, implementation and evaluation of their projects (Eiguren 2006: 31). In 1994, the World Bank's report established some recommendations: i) pay attention to the poor people as primary stakeholder; ii) embrace participation as a instrumental mechanism and not as a transformational because it is prohibited from becoming involved in political affairs; iii) incorporate participation mechanisms into its operations and commits (Long 2001: 34). Nowadays, it is impossible to think of development without participation. Participation is seen as a mandatory condition in social policy and a explanatory variable of the failure and success of in the development (Andrade and Martinez 2007: 15).

⁵<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTPCENG/0,,contentMDK:20507658~menuPK:410312~pagePK:148956~piPK:216618~theSitePK:410306,00.html>

⁶ <http://www.gtz.de/en/themen/uebergreifende-themen/partizipation/908.htm>

take command, to gain confidence, to use their own knowledge, and to make their own analysis (Musch 2001: 23).

However, in the last years there has been a trend that shows unease about participatory approaches regarding both, techniques and conceptual limitations (Cooke and Kothari 2001: 5). In this sense, Shaeffer (1994:28) mentions some risks of participation such as raising expectations, and then frustrations; generating great power in *wrong* people; facilitating domination of narrow community self-interest; and producing tokenism. In other articles, authors argue that participation has been transformed in a mechanism to legitimate conscious and unconscious political positions of powerful groups. For instance, Mosse (2001) affirms that participatory mechanisms to collect local knowledge are development organization means to manipulate political interests (Cooke and Kothari 2001: 8).

To characterize and define what real participation is, it would be important to consider the next dimensions:

i) The presence of participation mechanisms. It makes reference to the existence of norms and formal spaces of participation implemented by the State or generated by the society (Andrade and Martinez 2007: 17). One important aspect is the appropriateness of these mechanisms; it is not only important considering all the stakeholders but also the power relations existing among them in real situations (Andrade and Martinez 2007: 16-17). On the one hand, there is not enough or equitable information. On the other hand, parents -mainly from low socioeconomic level- do not show interest on education of their children because of a long tradition of exclusion (Winkler 2004: 138).

ii) The presence of all the stakeholders. It is associated to the question about *participation for whom*. As it will be seen later, participatory management in education can include actors within the school such as teachers and students; and stakeholders of the community such as parents, authorities or local institutions. Mainly, participation should be at the same time a mechanism to compensate power or create equilibrium in a fragmented society (Andrade and Martinez 2007: 17).

iii) The level of participation achieved by the actors. This dimension is linked to *what degree of participation*. In effect, participation can also be understood as a process occurring at many levels. Arnstein (1969) described seven possible levels of participation (*participation ladder*) related to the power degree; from the most exploitative and disempowered level to the most control and empowered: manipulation, decoration, tokenism, consultancy, partnership, delegation and control (Andrade and Martinez 2007: 17,Barbosa 2007: 6,Eiguren 2006: 35,Musch 2001: 28-29,Naik 2006: 17). The first three levels are not exactly ways of participation (Andrade and Martinez 2007: 17,Shaeffer 1994: 16). Schaeffer based on Arnstein set up seven different levels of participation for external stakeholders going from total exclusion to total control of citizens; these levels are: involvement through the mere use of service; involvement through the contribution; involvement through attendance; involvement through consultation; participation in the delivery of a service; participation in implementation; and participation in real decision-making (Eiguren 2006: 35-36,Naik 2006: 17,Ohene 2007: 29,Shaeffer 1994: 16-17,Uemura 1999: 2)

iv) The areas in which participation is given (Eguren 2006b: 44). It is related to the question *participation in what*. Following the OECD criteria, educational functions are divided into four groups: the organization of instruction, personnel management, planning and structures, and resources (Cuenca 2005b: 7,Winkler 2004: 131,Winkler and Gershberg 1999: 206-207).

v) The main aim of participation. A key to define real participation is to resolve the question about *participation for what purpose*. It is related to manners of understanding participation: is participation a goal itself, the embodiment of a transformed society (*transformational participation*), or does it serve other purposes such as a better management (*instrumental participation*)? This issues have been flagged repeatedly (Andrade and Martinez 2007: 16,Barbosa 2007: 6,Cooke 2001: 103,Cooke and Kothari 2001: 6,Musch 2001: 25,Plummer 1999: 3). Participation as a means implies that the people are mobilised with the purpose of achieve a desired outcome in an effective way (Barbosa 2007: 6,Cooke 2001: 103,Plummer 1999: 3). Inside this perspective some authors recognise two means for participation: while under a pedagogic approach, participation has as main goal the quality of teaching and learning process, under a political-administrative approach, participation has as objective management efficiency for the school (Eguren 2006b: 44).

Participation as an end is measurable in terms of the transfer of power; it is a process where the outcome is increasing meaningful participation itself (Plummer 1999: 3). Following this perspective, participation is seen as delivering empowerment through control over development processes and transforming consciousnesses (Cooke 2001: 104).

However, participation-as-mean and participation-as-end can be complementary; in other words, participation-as-a-means has the capacity to develop into participation-as-an-end (Plummer 1999: 3).

2.3 Participatory School-Based Management in Education

Decentralization is a mechanism often crucial in any attempt to facilitate the participation of a broader range of actors (Shaeffer 1994: 18). Decentralization when associated with participation has the potential to bring governance closer to local people (Nahar 2004: 7,Naik 2006: 18). Precisely, one of the most important trends in education is the policy that allows schools more autonomy and participation in decisions about their management (Grauwe 2004: 2).

Such policy reformation, known as local management of school, self-managing school, autonomous school, or school-based management (SBM) (Gaziel 1998: 320) has been created to replace the “culture of dependency” existing when schools were under national control (Deem 1994: 29).

Nevertheless, as with each concept that is analyzed in this paper, the definition of school-based management is as incomplete as it is diverse. A general definition could be: “the transfer of decision-making power on management issues to the school level” (Grauwe 2004: 2). In this case, “SBM is in many ways a rebirth of decentralization” in which functions are transferred to the school (Hanson 1990: 524). However, this definition does not consider who receives the responsibility, which functions are transferred, and to what extent they are transferred.

Who receives the responsibility is associated to the question *participation for whom*. As it can be seen later, power could be transferred to the head-teacher, the community or the School Board. The first one would be a decentralization process focused on giving autonomy while the second and third would refer to a decentralization process focused on offering participation. Caldwell draws a distinction according to who receives the responsibility: it is *school-based management* when the head-teacher assumes the responsibility; and it is *school-based governance* when the community (through parents or School Board) assumes the command (Grauwe 2004: 2, Rápaló 2003: 16). Other authors such as Murphy and Beck (1995) call administrative control SBM when the power is transferred to the head-teacher; professional control SBM when the decision-making is decentralized to the teachers; and community control SBM when the responsibility is given to the parents or members of the community (Cheng and Chan 2000: 211). The most common tendency has been offering the management control to School Boards that include principal, teachers, parents, and students. Indeed, since 1980 school-based management direct or indirectly has been implemented widely as a major means to improve student outcomes and the effectiveness of the school systems in both developed and developing countries (Cheng and Chan 2000: 206, Cheng 1994 in Gaziel 1998:321, Gamage & Sooksomchitra, 2004: 290).

While which functions are transferred is related to *participation in what*, to what extent they are transferred is connected to *what degree of participation*. In effect, “schools often are instructed to create councils of stakeholders, and those councils usually are vested with varying amounts of authority in the areas of budget, personnel, planning and instruction” (Clune & White 1988 in Wohlstetter et al. 1994: 269). When these two aspects are crossed with *participation for whom*, a continuum of SBM possibilities is created, “from one where few decisions of little importance are transferred to the head-teacher to one whereby the parents receive significant powers over the most important decision-making” (Grauwe 2004: 4). In this sense, “it is impossible to list all countries that have adopted, under one form or another, SBM policies” (Grauwe 2004: 3). Moreover, the variety of experiences increases considering the wide disparity between policy and reality.

There are several solid arguments in favour of SBM; the most important are related to its role in i) creating a more democratic environment; ii) creating a more decentralized system; iii) creating a less bureaucratic system; iv) supporting stronger accountability; and iv) promoting resource mobilization (Grauwe 2004: 4). However, the most relevant effect to discuss is whether participatory SBM has a real effect on quality of education, specifically on the academic outcomes. The argument is that the “traditional structure and relationship between the central authority and schools can hardly improve quality education because schools are bounded and become passive and inefficient in using resources to carry out educational tasks effectively” (Cheng and Chan 2000: 206). “Through SBM, decision-making authority is extended down the professional hierarchy to stakeholders not traditionally involved – teachers, parents, students and community – and, once empowered, these groups who were closest to the students would make better decisions and school performance would improve” (Wohlstetter et al. 1994: 269). “The yet-

untested SBM argument is that, when schools have the power, resources, and freedom from constraint to resolve their own problems, the payoff will be increased levels of learning" (Hanson 1990: 525). In other words, it has been a "way of ensuring that schools provide high quality teaching and learning" (Deem 1994: 24). "Indeed, it has been demonstrated that the quality of education depends primarily on the way schools are managed, more than on the availability of resources" (Grauwe 2004: 4). Smylie et al argue that participative decision-making improves teaching and academic learning through the mechanism of control, motivation of personnel, and learning (Smylie et al. 1996: 184). According to these authors, "the greater the participation nature of decision making, the more influence these three mechanism will exert in their relationship to instructional improvement and student learning" (Smylie et al. 1996: 184). Schaeffer (1994:21) and Uemura (1999: 7) argue that in a participatory system, schools are to some extent accountable to their clients: children, parents, community, etc. Experiences in Bangladesh (Nahar 2004: 31), Ghana (Ohene 2007: 60), and El Salvador (Winkler 2004: 135) reveal that one of the most important effects of participatory management has been the increase of the enrolment rate.

School-based management is not free from preoccupations and counterarguments. Based on the Hong Kong school experience, Cheng and Chan (2000:226) classified the obstacles in four types: structural, human resource, political, and cultural. The structural obstacles are related to how the SBM is organized. Instead of having been the result of an internal debate; in many countries, SBM has followed the forces of international development agencies or internal political expediency (Grauwe 2004: 5). The human resource problems refer to lack of experience or knowledge in management; for example, one important factor is to have a transformational leadership, but it is rarely found at the schools (Cheng and Chan 2000: 224). On the other hand, SBM could increase the administrative workload of head-teachers, losing time dedicated to pedagogical tasks (Grauwe 2004: 5). As political obstacles could be mentioned power distribution and conflicts between stakeholders resulting in an adverse effect on the quality education (Grauwe 2004: 6). For instance, the experience in Hong Kong showed that inevitably SBM created competition for power between head-teachers and teachers (Cheng and Chan 2000: 220). Experiences in Spain show friendships, power blocks, and coalitions for dominating the voting, and elections have less to do with education than alliances; numerous head-teachers pointed that they are obligated to carry out the wishes of the board members as exhibited through votes (Hanson 1990: 535). In addition, under SBM, teachers become frustrated and disheartened from the enormous workload of teaching and managing (Wohlstetter et al. 1994: 275). Finally, cultural obstacles refer to how stakeholders could react or behave. For instance, the kind of policies such as putting budget in the hands of School Board or the community gain less sympathy among the school staff (Grauwe 2004: 6). Cheng found that teachers were sceptical to advantages of SBM (Cheng and Chan 2000: 224). In Bangladesh, lack of community's interest was reported as a weakness (Nahar 2004: 28).

It is important to notice that for most of these problems it is possible to find political strategies. For instance, head-teachers require training in different topics such as negotiating, managing participation, building network and others. Principals and teachers need to understand advantages of SBM. Creating mechanism of power balance, information and accountability for parents and students is also important. As it is mentioned by Long (2001: 142), decentralization will not result in greater participation and equitable distribution of benefits without careful analysis of local conditions, innovations by central and local governments, proper incentives and vibrant local institutions (Long 2001: 142).

Participatory School-Based Management: the master key for academic outcomes?

Moving responsibility of decision making to schools implies redistributing power from central bureaucrats to the head-teacher, teachers and parents, who presumably have a greater stake in the content of quality education (Nahar 2004: 10). Although, school-based approach is being implemented more for political and administrative reasons, many authors believe the SBM is the solution for quality education (Grauwe 2004: 2).

Nevertheless, the question still remains: is participation a guarantee for quality education? Has the participatory school-based management had an impact on academic outcomes? The answer is not clear (Montero 2006). Review of literature shows that there is not consensus and the experiences offer different results in each country. Although participatory school-based management is supported by different academic, economic and political organizations, its effects on quality teaching have not been established. “While it is true that calls for reforms exist in most countries, ... examples of significant success are limited” (Gamage and Pacharapimon 2004: 290), and “the relatively small number of studies that examine relations between participative decision making and student learning present mixed findings” (Smylie et al. 1996: 182).

For instance, while Simkis (Gaziel 1998: 322) “published a review of studies in England and Wales and concluded that in fact there is little evidence that SBM is related to school effectiveness”, studies in Canada and United States support the hypothesis that SBM schools improved their overall effectiveness (Gaziel 1998: 322, Johnson 1995: 223). These last studies are not precise in which aspects school improve or not. Research from 83 empirical studies on SBM concluded that there is no research-based evidence about the direct or indirect effects of SBM on students (Grauwe 2004: 7). Levin (1988 in Gaziel, 1998: 322) “suggested that school-based management is indirectly related to student learning and achievement (academic outcomes), and directly related to the morale and satisfaction of school personnel”.

According to some authors, even though it is generally acknowledged that participation in decision making is positively related to teachers’ attitudes (satisfaction, responsibility, and accountability), research examining the academic outcomes of participatory management yields generally equivocal conclusions (Smylie et al. 1996: 181-182). In the United States, a study found that participative decision making can have negative as well as positive effects

on student learning (Smylie et al. 1996: 193). The author affirms that “poorly implemented participation may become a distraction from class activity” (Smylie et al. 1996: 194). In the same country, a longitudinal research revealed that reading and math were not significantly affected by participatory decision-making (Jenkins et al. 1994: 368). In Israel, Gaziel (1998: 330) concluded that although previous studies affirm that autonomous schools are more effective than non-autonomous schools, this conclusion should be cautiously accepted because he found that only 4% of the variance could be explained by a school-based approach. In Central America, there is evidence that shows improved learning in projects such as EDUCO from El Salvador, Escuelas Autonomas from Nicaragua, and PROHECO from Honduras (Di Gropello 2006: 36-37, Rápalo 2003: 23, Winkler 2004: 137). Nonetheless, other study manager for EDUCO’s schools from El Salvador revealed that the cognitive achievement was not different than in other traditional public schools (Winkler 2004: 137). In contrast, Uruguay, perhaps Latin America’s most centralized country, has been very successful in improving equity of outcomes in its education system through targeted interventions to poor communities (World Bank, 2006).

In this sense, more and more questions are being asked about whether school-based management increases student learning (Smylie et al. 1996: 181). Indeed, in the absence of clear evidence, “doubts about the efficacy of participation as a mechanism for school improvement are becoming more resolute” (Smylie et al. 1996: 181). For example, Wohlstetter et al. (1994: 282) found that establishing School Boards in the United States did not “automatically lead to their application to improve teaching and learning”. Moreover, they indicate that “schools within the same districts varied in their ability to use their school-level power to focus on and effect change” (Wohlstetter et al. 1994: 282). In the same country, an experimental research reported that reading, math, and spelling achievement were not significantly affected by the introduction of school-based participatory decision making (Jenkins et al. 1994: 368).

The literature offers numerous explanations for this lack of consistency and conclusive evidence between academic outcomes and school-based management (Smylie et al. 1996: 182):

i) The academic outcomes depend on the “structures, foci and process that characterize the participative initiatives” (Smylie et al. 1996: 182). Participative structures that are democratic and collaborative, and that focus mainly on issues of curriculum and instruction are most likely to evoke change at the classroom level (Smylie et al. 1996: 182). In contrast, community school-based management programs implemented in Central America have been aimed at increasing enrolment, community participation, efficiency and, very marginally, on improving the quality of education through more parental and local participation (Di Gropello 2006: 21). Consequently, the improvement of academic outcomes in these countries has been limited.

Organizations as World Bank believe that it is necessary increase power of parents in the School Board (Crouch 2006: 72). Because vigilance plays an important role for quality education through accountability, the World Bank’s suggest promote accountability through giving more power to parents,

providing mechanism of information, elaborating clear roles, and offering incentives (Winkler 2004: 140).

ii) The academic outcomes depend on the level of implementation of the participatory school-based management. It means that to achieve academic outcomes, it is necessary that school-based management is “paced, implemented well over a substantial period of time, or provided with adequate resources and political support from school and district administration” (Smylie et al. 1996: 182). For instance, once School Boards are set up and power (at least on paper) is transferred, authorities believed that they had accomplished the reform (Wohlstetter et al. 1994: 269).

iii) The academic outcomes depend on the relation of school-based management with other school's variables. Whether the intent is to improve academic learning, it is necessary to find mechanisms that foster high levels of involvement by the School Board's members in decisions related to academic outcomes (Wohlstetter et al. 1994: 284). Moreover, studies have shown positive associations between student achievement and teaching-learning processes. In this sense, influence of participation on academic outcomes involves teachers' academic skills, level of content knowledge, years of experience, among other. (MINEDU 2005: 106-110, Smylie et al. 1996: 183, UNESCO 2006: 76). It is also possible that in developing countries school “inputs such as teacher education, pupil teacher ratio, school size and percentage of deprived students at school are the best factors for explaining academic outcomes; ... the power of these factors to explain school effectiveness is greater than structural and organizational factors such as school autonomy” (Gaziel 1998: 329).

iv) The evidence on academic outcomes may be explained by the characteristics of the existing literature. They consist “mostly of positions statements, essays, project descriptions, and status reports... most of the literature is descriptive, and applied to the first years of project implementation” (Smylie et al. 1996: 182). Experiences in Central America indicate that the lack of time series research is one of the factors that complicates the use of learning to evaluate impact of participation (Di Gropello 2006: 21).

Chapter 3

THE SETTING

This chapter describes the scenario in which participatory management has been designed and implemented in Peru. This paper focuses mainly on how the participatory management has been progressively put into practice in Peru; and what are the main characteristics of the school-based management implemented in the country. For this, it follows the criteria developed in the previous chapter.

3.1 Background of Participatory Management in Peru

This section describes the normative related to participatory management in the education sector in Peru that have been promulgated from 1993 to the present, and that have influenced the management and performance of the schools. Based on the implementation of these norms and policies, this paper supports the idea that participatory management has been achieved after a progressive process of decentralization influenced by economic-liberal and democratic-humanist models. Although both approaches have different conceptions, they moulded the current situation that could be described as the evolution from an autonomous school-based management focalized on the head-teacher as a main agent to a participative school-based management focused on the School Board integrated by the head-teacher and teachers, as well as students, parents and member of the community.

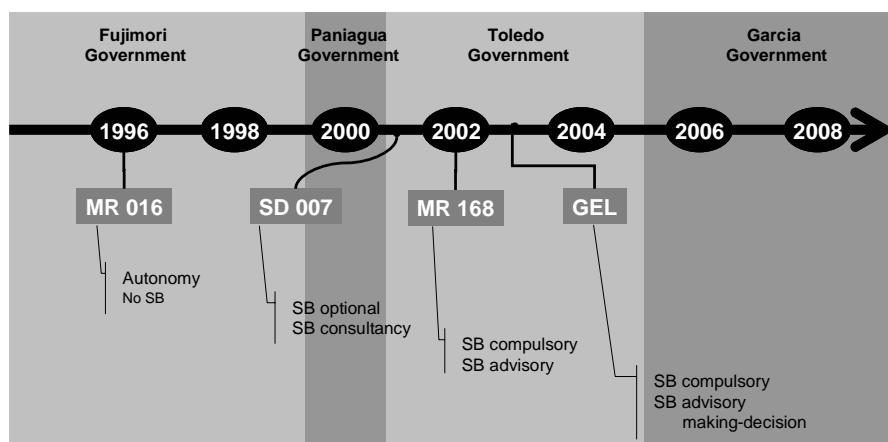
First Moment: Autonomy for the Peruvian School under the Neoliberal Influence

In the 1990s, decentralization in Peru followed a process of modernization propelled by the State in order to respond the principles of liberalism having the educational privatization of Chile as a model (Carrillo 2007, Eguren 2006, Muñoz et al. 2007: 26, Salazar 2005). The state was attributed as one of the main causes of the crisis in the education sector due to hyper-bureaucratization, inefficiency and irrationality (Salazar 2005). Therefore, the solution would be creating administrative changes and transferring power to small units such the schools. This decentralization would improve the performance of schools, increase the quality of learning and decrease the costs (Salazar 2005).

However, the objective was focused on the efficiency of decisions; in this sense, it failed to give democracy: discussion of different values and actors were not considered (Salazar 2005). Carrillo (2007) affirms that this model failed to provide quality education and equity. In 1996, the compensatory programme MECEP was implemented with direct influence of World Bank. In effect, in 1996, during the second government of Fujimori, the Ministerial Resolution RM 016-96/ED that gave autonomy to schools strengthening the faculties of the head-teachers in educational management was promulgated (Andrade and Martinez 2007: 23, Eguren 2006b: 55, Martinez 2004: 6).

This plan concentrated the decision-making on the head-teacher and promoted the strategic planning with participation of parents, students and community. Although the norm suggested participation of the community, the community did not have any say in the management of the school (Martinez 2004: 6). The main objective was to improve the capacity of head-teachers in decision-making on finance and human resources (Andrade and Rios 2007: 23). In other words, participation was considered nominally because the management was based on the leadership and quality of management of the head-teacher (Andrade and Rios 2007: 24).

Figure 4
Evolution of Participatory Management in Peru



Source: Own elaboration

MR= Ministerial Resolution: SD=Supreme Decree: GEL= General Education Law: SB=School Board

Second Moment: Participation for the Peruvian School under Democratic Movement

The fall of Fujimori's government (2000) happened in the middle of one of the most corrupt episodes in the history of Peru, as well as in the middle of a strong social mobilization against the dictatorship. Democracy had been recovered and the main concerns were related to the loss of values and the lack of democratic culture. It meant the beginning of a new democratic government characterized by the promotion of participation in different levels and areas. Effectively, at the end of the 2000, the new government introduced reforms in the education system oriented to strengthen citizen participation in public management (Martinez 2004: 7, Salazar 2005: 172).

In 2001 the Supreme Decree DS 007-01/ED was implemented. This norm established the creation of School Boards as entities of community participation (MINEDU 2001); however, its participation had a consultative character and its conformation was optional (Martinez 2004: 7). In 2002, the Ministerial Resolution RM 168-02/ED dictated the obligatory character of the School Boards (MINEDU 2002: 219251). According to this norm, the Board would be lead by the head-teacher and had to include the sub-principal, delegates of teachers, delegates of students, delegates of parents, and delegates

of the community; its role was of advisory and support, giving opinion when head-teacher asked for it; it also had vigilance attributions of equity, enrolment and permanence of students (Ministry of Education 2002: 219251). The Board did not have any attribution in other aspects such as vigilance of teacher performance (Martinez 2004: 7-8). While in 2000, the School Board could be optional and for advisory; in 2002 the School Board was compulsory and it had capacity of opinion, although no vote.

In 2003, the Education General Law⁷ was promulgated. The Law established the creation of “entities of participation, agreement and vigilance” in each management level: national, regional and local (MINEDU 2003: 15). In this sense, the school must create a School Board comprising the head-teacher, teachers, parents, students and delegates of the community. The Law establishes that the management is participative, which means that the society intervenes organized, democratically and creatively in the planning, organization, following up and evaluation of the decentralized management entities in the educational system (MINEDU 2003: 14). In other words, this new law highlights the role of the participation that is decentralized and executed in a autonomous context (Eguren 2006b: 51).

One of the most important aspects is that the Law introduces formal mechanism of social civil participation in the educational management under the current process of decentralization (Andrade and Martinez 2007: 42). In the General Educational Law, participation becomes in a short time a tool that improves educational management, and an instrument of citizen control (Eguren 2006b: 53). In the long term, democratic values are expected to be learned by population (Eguren 2006b: 53). Moreover, because the school would have autonomy and decision making power to generate changes and respond to the demands and necessities of the students, quality education would be guaranteed (Muñoz et al. 2007: 11).

3.2 Characteristics of School-Based Management in Peru

The presence and appropriateness of mechanisms of participation

One of the most important aspects is that the Education General Law introduces formal mechanisms of social civil participation in educational management (Andrade and Martinez 2007: 42). Following Caldwell, participatory management in Peru has changed from school-based management to school-based governance. In this sense, while some year ago the process of decentralization was focused in providing autonomy; at present, it is oriented to promote participation.

However, participation in the management of schools launched in Peru is not exempt from preoccupations and problems that put in risk the sense of

⁷ The Law is a product of the consultancy and participation of different people; the Education Commission of the Congress elaborated surveys, consultancies, workshops and meeting under the slogan “your voice is law”; 34 759 people, 280 institutions and almost 100 specialists participated in all the country (Andrade and Martinez 2007: 42).

participation (Andrade and Martinez 2007: 15). One of these problems is related to clarity of the norms. The law and norms assign contradictory roles, vague definitions or gaps for different actors (Crouch 2006b: 639). Now, there is a great proliferation of new actors with crossed functions that has generated problems in the process of participatory management; for example, its not clear why it is necessary to have APAFA (School Parent Association) and School Board, and moreover, where the role of one overlaps with the other's (Crouch 2006b: 640).

Another problem is related to its implementation. According to the Ministry of Education, until November of 2005, 13 853 (38%) School Boards were launched (Andrade and Martinez 2007: 44, Muñoz et al. 2007: 22); until March of 2007, 28 446 (60%) were created and registered, but only 30% of them were working (MINEDU 2007: 26). Indeed, most of these School Boards have limitations in their working (Andrade and Martinez 2007: 44). Related to the implementation is that the process has been assimilated in the bureaucratic logic and routine that is practiced in the public sector; having as a consequence that participation becomes a formal and senseless practice (Andrade and Martinez 2007: 15). In this sense, as its is mentioned by Anderson, participation is used to legitimate previous political decisions determined by other actors, or to accuse obstacles in political decision-making processes (Andrade and Martinez 2007: 15).

A last problem refers to the appropriateness of the mechanism of participation. In Peru, there are laws and norms that would permit a wide participation of citizenship in the education sector, but this space is not used or it is not effective (Crouch 2006). Apparently, population do not know about these possibilities; for instance rarely 28% of population know about the new education law after 3 years of being enacted; and this knowledge has relation with socioeconomic status (Montero 2006: 22). Parents seem to be satisfied with the quality of their children's education (Crouch 2006). Around 80% of them feel that education is good; if parents are satisfied, rarely quality of education depend on their participation in the accountability (Crouch 2006). Civil society also show indifference or lack of knowledge due to lack of interest on participation (Andrade and Martinez 2007: 15). Finally, students need mechanisms and tools to participate; they follow long sessions without opportunities for total comprehension (Martinez 2004: 31-32). The same can be said for mothers participating in the School Board (Muñoz et al. 2007: 22-23).

The presence of all the stakeholders

The school-based management in Peru is based on the presence of all the stakeholders, or at least the most relevant: Head-teacher and Vice head-teacher, one delegate of teachers per level, two students (boy and girl), one alumnus, one administrative staff, two delegates of parents, and members of the community that can be invited. The delegates of the School Board are chosen by democratic procedures for a period of two years, or one year for students (MINEDU 2005b: 291723). The norm indicates that the School Board must have four ordinary session per year and it is possible to have extraordinary ones whether Head-teacher or a half-plus-one of the members

consider them necessary (MINEDU 2005b: 291724). Also it is point out that sessions are valid when the participation of a half-plus-one and all the agreements are written in records.

Studies about participation of stakeholders in School Boards are almost nonexistent in Peru. In a qualitative research in 8 schools of the DFID's project, head-teachers interviewed perceived that School Boards are a support because their workload is reduced and the meetings generate useful opinions; they do not see their authority being disputed; totally the opposite they feel that their management is strengthened with the support of the members (Martinez 2004: 30).

Are School Boards a support for the head-teacher or are they management entities of participation? Martinez affirms this is difficult to answer; in fact he mentions that the head-teachers try to influence and control the board but the decisions could be influenced by other members (Martinez 2004: 30). Teachers were elected democratically and had support of their bases, but they did not have communication with them (Martinez 2004: 30). Parents participating in the board facilitated information to the others parents (Martinez 2004: 31). In Crouch's opinion (2006), parents should have majority in the School Board and power to choose and evaluate teachers. Likely because there is an asymmetrical relationship, some authors consider that a better alternative is to have a community school-based management as it was implemented in Central America. Community delegates had more influence due to positions in the community or personal characteristics; in fact, community delegates usually have experience in communal functions (Martinez 2004: 30). However, participation is assumed as a duty and not as a right by the community (Martinez 2004: 27). Lastly, participation of the students was incipient, even when other members tried to motivate them and their opinions were asked in the sessions (Martinez 2004: 31-32).

The level of participation achieved by the actors

Since 2001, the Peruvian government has propelled the institutionalization of participatory management at the school. Authors argue that the mandatory character of the School Board, the participation of the most important stakeholders, and its influence on different areas are the main achievements of this strategy. For some optimistic authors "participation in decision-making" would mean real and deliberative decision-making among the members of the School Board (Andrade and Martinez 2007: 43). Whether there is lack of control in the decision-making, it would be due to traditional and hierarchical culture (Eiguren 2006b: 52).

However, as it was seen in the previous chapter, participation has many levels; but little is discussed about them in the norms and the academia. Indeed, after the review of norms, it can not be said whether School Boards have only voice or vote in decision-making. Norms usually mention terms such as "collaborate", "keep watch", "participate", "promote", "express opinion"; which shows that participation does not imply vote in decision-making. Actually, the norms always point out that the Head-teacher is the main responsible of the management. Following this consideration, participation of

the School Boards would be at the level of consultancy or advisory in the terms of Arstein, but not at the level of real decision-making in the terms of Schaeffer. Nevertheless, some organizations used this gap as an advantage. In their opinion, the level of participation can be decided by each school. In other words, real decision-making can be potentially achieved.

The areas in which participation is given

The areas in which School Boards have influence are higher compared with previous experiences. The Supreme Decree DS 009-05/ED is a norm that specifies the functions of School Boards. Related to the personnel, this norm establishes that School Boards evaluate the recruitment, promotion and permanence of the teachers; they also collaborate with control of assistance of administrative staff and teachers; and contribute in the resolution of conflicts (MINEDU 2005b). Regarding to planning, the School Boards participate in the elaboration of management tools, specially the Institutional Educative Project. This Institutional Project is a medium-term instrument that includes the mission, vision, diagnosis, and pedagogic and management proposal. In relation to the instruction, School Boards are collaborators in the vigilance of teacher's attendance, the free education, student's attendance and enrolment. Finally, about resources, the School Boards are vigilant of school as well as APAFA's spending budget.

It is important to notice that power in decision-making is mainly characterized by the locus of decision on personnel and budgets; it means, hiring decisions, and the budgeting of non-personnel expenditures (Winkler and Gershberg 1999). In both, School Board can have voice and potential vote as it can be appreciated above. Nonetheless, this potential vote hardly can be real because School Board's norms coexist with a strong regional or centralist concentration of important decisions such as budget, personnel, curricula, texts and teacher training (Montero 2006: 22). For instance, the process of teacher's recruitment is lead by the Educational Local Unit (MINEDU 2005b: 291726). In the case of budget, the percentage of budget in fixed costs is so high that there is a narrow margin for non-personnel expenditures; moreover, the budget is decided by regional authorities (MINEDU 2005b: 291727). Actually, although the Education General Law establishes the school as centre of decentralization, many school's functions have been transferred to local or regional units (Cuenca 2005b: 29). In this sense, for some authors the process of decentralization in Peru has followed more a regional model than a school-based model (Muñoz et al. 2007: 11).

The main aim of participation

What is participation for in Peru? Has participatory management been for transformational or instrumental purposes? Have school-based management in Peru been mainly guided by efficiency reasons or quality of learning purpose? First, it is important to mention that participation in Latin America including Peru has been implemented inside the current trend of decentralization in the region. Raising quality has not necessarily been at the center of participation and decentralization initiatives in Latin America, and the quality improvement

objective has instead been considered as an indirect outcome or simply been added on as the programs have matured (Di Gropello 2006). Specifically, in the case of Peru, decentralization in education has followed a major reform of the State that has had other political and technical interests (Cuenca 2005b: 11). It means, that decentralization has not been guided by improving quality education in which pedagogic aspects are emphasized (Cuenca 2005b: 11).

Figure 5
Functions of School Boards in Peru

Participation
<ul style="list-style-type: none"> • Elaborate the Institutional Educative Project • Design, implementation and evaluation of management and pedagogic tools • Promote mechanisms of civil society participation to evaluate the educational management • Colaborate distribution of classes and hours of the school • Promote commitment in the community for infrastructure, equipment and furniture • Evaluation recruitment, promotion and permanence of teachers and administrative staff • Promote academic, sport and cultural events • Suggest incentives for academic and administrative staff according to their performance • Suggest mechanism and instruments for parents in order to contribute the learning of students
Agreement
<ul style="list-style-type: none"> • Promote links with institutions and organizations in the locality • Support for resolution of conflicts • Generate agreements to improve pedagogic and administrative management
Vigilance
<ul style="list-style-type: none"> • Keep watch over access and permanence of students • Keep watch over execution of budget • Keep watch over performance of teachers and administrative staff • Keep watch over number of hours dedicated for teaching • Keep over watch attendance and punctuality of teachers

Source: Elaborated based on DS-009-05/ED, Martinez (2004)

In 2003, School Boards were established as entities of participation, agreement and vigilance. The figure 5 shows the different responsibilities assumed by them. There is no evidence of *transformational participation* in the participatory processes developed in Peru. Nonetheless, after the first experiences in participatory management in Peru, some authors argue that the benefit of participation is more in the process than in the outcome (Eguren 2006b: 58). In other words, school-based management develops empowerment and capabilities in different stakeholders more than academic outcomes.

3.3 School-Based Management and Academic Outcomes in Peru

Experience of school-boards according to the Education General Law started in 2003. As it was mentioned before, until 2007 hardly 30% of the schools boards were working (MINEDU 2007: 26). Under this panorama, it is difficult to expect some kind of influence of participatory management on academic outcomes. Moreover, there are no qualitative or quantitative studies about the influence of school-based management on process of learning or quality of learning.

Nevertheless, some projects such as RED (DFID) and Aprendes (USAID) show that there is an impact on associated factors to academic outcomes or on academic outcomes itself. Martinez (2004:36) found that School Boards had influenced attendance of teachers and students, time of effective classes, enrolment of students, nutrition, and infrastructure such as toilets, kitchen, rooms and furniture. According to this author, influence on academic outcomes requires more time because the first tasks of School Boards are related to its strengthening (Martinez 2004:36). In rural schools from San Martin, nobody performed in the “sufficient” level in 2004; however, after 2 years working with School Boards and scholar municipalities, 13 out of 100 students performed in this level (Aprendes 2007: 4). Similar results were found in Ucayali region where percentage of students in “basic” level increased from 13% to 41% in math ability (Aprendes 2007: 4).

Chapter 4

THE METHODOLOGY

This chapter describes the secondary databases used for this paper; the variables used to analyze these concepts; the group of schools that shapes the sample; and the quantitative analysis developed to answer the research questions.

4.1 The Sources

This research is based on merging 3 secondary quantitative data sets collected by the Department for International Development of the United Kingdom (DFID) and official data of the Peruvian Ministry of Education.

- i) DFID database: The Department for International Development worked from 2003 to 2004 in Piura and San Martin (Peru) with the objective of promoting local participation in the management of schools set out by the new law of decentralization started in the country.
- ii) UMC database: The UMC is the Quality Measure Unit of the Ministry of Education in Peru that evaluates academic outcomes every 2 years. Since 2007, this measure is based on a census; in this sense, the information provided by the DFID project can be merged with UMC's information.
- iii) SCALE database: The SCALE is a statistical system managed by the Statistical Office of the Ministry of Education in which general information about size, enrolment, place and other infrastructure data is provided by school. The information was also merged with the previous data sets.

4.2 The Variables

Academic Outcomes (dependent variable)

As it was mentioned in Chapter 2, the most widespread method to evaluate quality of education is through academic outcomes. Although it is not the only way and it should be developed alongside other mechanisms, this paper is based on two academic outcomes indicators developed by the Ministry of Education in Peru: *Reading Comprehension* and *Math Ability*. These two indicators were used to evaluate second grade students of primary education in all the schools of Peru, including the regions San Martin and Piura between September 5th and 6th, 2007. According to the analysis developed by UMC (2008:4), the reliability for the *Reading Comprehension* test and *Math Ability* test is 0.73 and 0.77 respectively; both tests also measure the one-dimensional concept based on the principal component of factoring analysis.

The *Reading Comprehension* test evaluates 3 capacities: reading words and statements; finding literal information; and making inferences. The test had 24 questions with multiple choices and matching alternatives corresponding to 4 texts. The *Math Ability* test measures 4 aspects: resolution of problems; math reasoning and proof; algorithms; and math communication. This test has 21 questions with multiple choice options.

The tests' results are showed according to levels of improvement: level 2 is constituted by the expected tasks for second grade; level 1 gathers less difficult tasks; and level 0 brings together the students that could not develop all the tasks of level 1. The levels are inclusive; it means that a student who is in the level 2 has high probability to develop satisfactory tasks of level 2 and 1 (UMC 2008: 5).

Performance of the School Boards (independent variable)

The Education General Law establishes that the School Board is an entity of participation, vigilance and agreement. Following this precept, DFID included and collected a group of variables related to these 3 functions between December, 2003 and December, 2004 in schools in 3 regions in Peru.

For purposes of this study, 7 variables have been selected according to each function (see figure 6). Functions of Vigilance include three variables related to keep watched teacher's attendance, student's enrolment, and student's attendance. Functions of participation contain two variables: internal participation when members affirm that there is dialogue and their opinions are considered; and external participation when all the members participate in meetings of networks. Functions of agreement include also two variables, one internal agreement when members recognize their functions; and external agreement when School Board establishes alliances with other institutions.

Figure 6
Variables according to School Board Functions

Vigilance
1) The School Board has collected information, discussed and taken measures about student's attendance
2) The School Board has collected information, discussed and taken measures about student's enrolment
3) The School Board has collected information, discussed and taken measures about teacher's attendance
Participation
4) The School Board's members affirm that there is dialogue and decisions are taken considering opinion of the members
5) The School Board attends meetings of the school's networks
Agreement
6) The School Board explains function and purposes to the educational community
7) The School Board executes effectively alliances with partners

Source: Elaborated based on DS-009-05/ED, Martinez (2004)

Six out of seven variables are in Likert scale, while the other is in dichotomous format. Variables in Likert scale assume values from 1 to 5. While value 1 means that the School Board has not accomplished anything

about the indicator, value 5 means that the School Board achieved the activity satisfactorily at 100%. For instance, regarding to student's attendance, 1 means that School Board did nothing about it, and value 5 that the School Board designed, collected, discussed and took measures about student's attendance. List of variables and their values are shown in Annex A. For purposes of cross-tabulation with academic outcomes (see Table 4), variables in Likert scale have been grouped in dummy variables following DFID's criterion: satisfactory (values 4 and 5) and unsatisfactory performance (values 1, 2 and 3).

Inputs and Context Characteristics (independent variables)

Considering the dimensions of quality education mentioned in Chapter 2, other independent variables are included in the analysis. They are classified into inputs and context characteristics. Inputs variables include student-teacher ratio that refers to the number of students per teacher in a specific school; locality: whether school is located in urban or rural place; supplementary program: whether school receives alimentary or health program; and the type of school. This last refers to multigrade schools when a classroom is shared by students of different grades and one teacher teaches them simultaneously; while monograde schools are those in which the students correspond to just one specific grade.

Context characteristics contain two variables: i) UGEL is an independent educational management unit placed in a specific locality; and ii) availability of institution advisor. This last variable was included because DFID considered in its intervention to local NGOs.

Due to limited information on the databases obtained, other variables of these dimensions and other dimensions as teaching-learning processes are not included in this paper; and this is a clear limitation.

4.3 The Population and Sample

Population characteristics

Peru is a Latin American country with 28 million inhabitants, a 52% poverty rate; a medium human development index (0.773); 3.2% GNP invested in education; 10.9% adult illiteracy rate; and 93.1% gross enrolment rate at primary school in 2006. Although the policies discussed in this document have a national impact; secondary databases was collected in 2 regions of Peru: Piura and San Martin.

Table 1
Student Performance in Reading Comprehension and Math Ability in Public Schools by Region, 2007

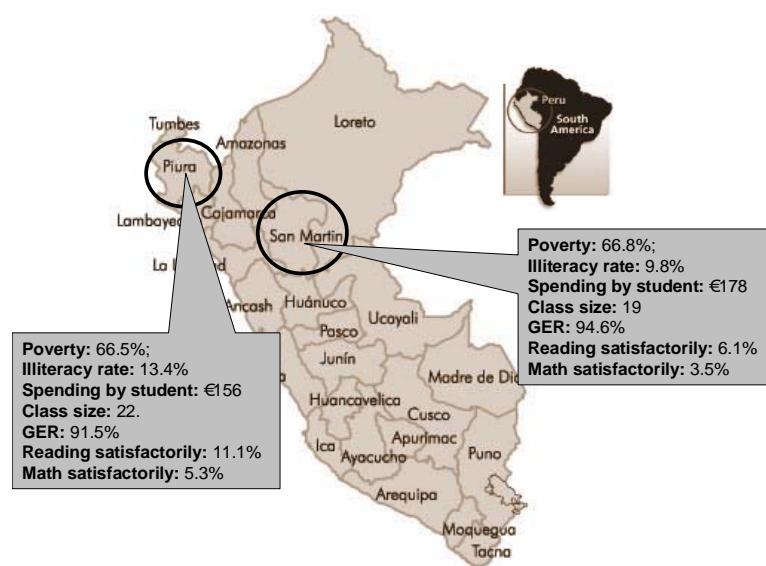
	Reading Comprehension			Math Ability		
	Level 0	Level 1	Level 2	Level 0	Level 1	Level 2
San Martin	44.4	49.4	6.1	70.0	26.5	3.5
Piura	33.2	55.8	11.1	62.8	32.0	5.3
PERU*	34.6	53.5	11.9	59.9	33.7	6.3

*Source: Elaborated based on UMC (2008: 21, 45)

Piura is a region in the north of Peru (Figure 7). Its poverty rate is 66.5%; its population between 6 and 11 years rounded 230 000 in 2005; and its illiteracy rate in 13.4% in 2006. The public spending by student is around 156 euros; and the class size is 22. The gross enrolment ratio in 2004 was 95.7% and 91.5% in 2006. In the last national evaluation (2004), hardly 11.1% of students in the second grade obtained the sufficient level in reading comprehension and 5.3% in mathematics.

San Martin is a region in the Peruvian Amazon. It has a 66.8% rate of poverty; 103 000 children between 6 and 11 in 2005; and 9.8% illiteracy in 2006. In San Martin, 178 euros are spent by student; and in average 19 students make each class. The gross enrolment ratio in 2004 was 98.5% and 94.6% in 2006. The national evaluation in 2004 revealed that the sufficient learning of students in reading was 6.1% in second grade, meanwhile its math ability was 3.5% in second grade and 3.5% in sixth grade (Table 1).

Figure 7
Population and Education Statistics



Source: Own elaboration based on UMC (2004)

Sample

A group of 88 public primary schools in 2 regions in San Martin and Piura shapes the sample. The main characteristics are shown in Table 2. At a first glance, this paper analyzes mainly schools with multigrade composition (88.6%) located in rural areas (89.8%) in which from 2 to 4 teachers have classes with 28 students of different grades in average.

Notice that San Martin and Piura's schools show differences statistically significant. In Piura, schools are more rural and multigrade in

relation to San Martin's schools. San Martin's schools are bigger than Piura's ones. Indeed, in San Martin there are more teachers and students on average per school; nonetheless, the number of students per teacher is higher in Piura than in San Martin.

Table 2
Characteristics of Sample by Region

	San Martin	Piura	TOTAL
Number of schools	27	61	88
Percentage of rural schools**	70.4	98.4	89.8
Percentage of multigrade schools**	74.1	95.1	88.6
Percentage of bilingual schools*	7.41	0.0	2.3
Students mean per school*	107.1	67.0	79.4
Teachers mean per school*	4.8	2.5	3.2
Teacher/student ratio*	25.0	29.5	28.1
Percentage of students in math level 2	5.5	4.3	4.8
Percentage of students in reading level 2	6.7	2.8	4.4

* $p<0.05$; ** $p<0.01$

Source: Elaborated based on UMC, SCALE and DFID databases

SB=School Board

4.4 The Analysis

As it can be seen in the previous chapters, participatory management was considered a mechanism to improve largely quality education in the eighties. However, there is not conclusive evidence; instead, several studies showed that there is a long number of other external and internal factors that influence academic outcomes; or that school-based management does not guarantee the achievement of learning. Other authors such as Winkler (2004) and Winkler & Gershberg (1999) have argued reasons about why it is difficult to evaluate education decentralization: i) Time series of these measures are seldom available; ii) these academic outcomes usually change slowly in response to any kind of educational intervention, including decentralization; and iii) it is very difficult to control for external shocks, ranging from natural disasters and fiscal crises to teacher strikes and changes in national education leadership.

This paper investigates whether school-base management contributes to have a better education and, if so, to what extent. In other words, how much variance of the academic outcomes is explained by the participatory management of the School Board? For the purpose of answering this research question multiple regression models are calculated to analyze the inputs and characteristics of participatory school-based management affecting reading comprehension and math ability. In other words, the academic outcomes (dependent variables) depend on two or more variables such as inputs of the school, vigilance of the School Board, participation of the School Board, and agreement of the School Board (explanatory variables).

In this sense, the next model is specified:

$$Y_{ij} = \alpha_0 + \alpha_1 Inputs_{ij} + \alpha_2 Context_{ij} + \alpha_3 Vigilance_{ij} + \alpha_4 Participation_{ij} + \alpha_5 Agreement_{ij} + \varepsilon_{ij}$$

Where: Y_{ij} is the dependent variable reading comprehension or math ability. Inputs represent characteristics of the schools such as if school is placed in urban or rural area; if school is monograde or multigrade; if school receives supplementary programmes; if the School Board has been launched formally; and the number of students per teacher. Context refers if school is placed in a specific region and if there is presence of any institution advisor. Vigilance means functions of School Board's vigilance such as teacher's attendance, student's attendance and enrolment. Participation includes School Board's internal participation and School Board's external participation. Agreement represents functions of School Board related to find consensus. ε represents the error term.

The number of cases has been one methodological problem in the regression analysis. Merging databases, lack of information, and inconsistencies among cases pushed to dispense with several schools. It meant a decrease of the sample from 155 to 88 schools. Because regression analysis depends on number of cases, results can have been influenced by this factor. Results related to regression should take into account this limitation. Moreover, variability inter student has not been captured in the model because of characteristics of databases. This paper does not assume that student into a school would have similar background or characteristics. Finally, crosstabs among associated factors and the main variables are computed to find patterns of behaviour.

Chapter 5

THE FINDINGS

Based on the literature review, policy analysis and statistical analysis, this specific chapter tries to respond how participatory management influence academic outcomes, and what functions of participatory management can impact math ability and reading comprehension.

5.1 Describing Participatory School-based Management

School Boards became created but their performance in participation, vigilance and agreement is moderate

From September 2003 to January 2005 DFID and the Ministry of Education implemented a project in San Martin and Piura. The project sought to launch School Boards and strengthen their three main functions: participation, agreement and vigilance according to the Education General Law launched in 2003. Before the project, some schools did not have a School Board, while others had an inoperative old School Board created under previous norms. Indeed, research in San Martin and Piura in 2003, showed that the School Boards existed only on paper because they never worked after they were created (Martinez 2004: 8).

In this sense, Table 3 gives evidence of progressive creation and consolidation of School Boards. For instance, in April 2004, 89.7% of the schools had a School Board, and in August 2004 all the schools had launched their School Board. In the same month, almost all the School Boards (98.5%) had been recognized legally by local or regional authorities.

Different from previous experiences, the School Boards analyzed in this paper show –at least in 2004- a strengthening in their functions. In other words, they were not only nominally created but also entities that started to work according to their functions of vigilance, participation and agreement. Nonetheless, the accomplishment of these functions became different as it can be seen in Table 3. In the case of vigilance, it is revealed that almost half of the School Boards were concerned with controlling teacher's attendance to class (48.3%). Related to vigilance of student's matter, the percentages show that School Boards were more worried about student's enrolment than about student's performance. In fact, while 33.3% of School Boards observed and took measures for enrolment, 12.5% paid serious attention to student's attendance, and hardly 9% were concerned with student's performance (if they fail or not). Indeed, as it was mentioned in chapter 2, experiences in El Salvador, Honduras, Ghana, and Bangladesh reflected that one of the most important contributions of participatory management has been the increase in gross enrolment (Nahar 2004: 31, Ohene 2007: 60, Winkler 2004: 135). Similarly, in Peru, a greater attention seems to be paid to enrolment and less attention to academic outcomes.

Clearly, School Boards in Peru need to be more vigilant regarding teacher's attendance and learning and avoid focusing mainly on enrolment. The

World Bank is one organization that promotes the creation of clear and simple qualitative indicator such as fluency and reading speed (Crouch 2006: 72); yet this kind of indicator is criticized by its reductionism.

Table 3
Launching and Functions Performed by School Boards, 2004

VARIABLES	
Launching:	
% of cases in which SB been created formally in April 2004	89.7
% of cases in which SB been formally created in August 2004	100.0
% of cases in which SB been legally recognized by superior level in April 2004	60.3
% of cases in which SB been legally recognized by superior level in August 2004	98.5
Functions of Vigilance	
% of cases in which SB collected, discussed, and took measures about teacher's attendance	48.3
% of cases in which SB collected, discussed, and took measures about student's enrolment	33.3
% of cases in which SB collected, discussed, and took measures about student's attendance	12.5
% of cases in which SB collected, discussed, and took measures about student failed	8.9
Functions of Participation	
% of cases in which there dialogue and opinion of all SB's members are considered for making decisions	44.4
% of cases in which SB participated in meetings of the school's network	7.8
Functions of Agreement	
% of cases in which SB explained about its functions and purposes	28.4
% of cases in which SB performed satisfactorily its function of agreement	7.4

Source: Elaborated based on DFID database SB=School Board

Participation is a transversal dimension, and it is difficult to measure independently from other aspects. At first glance, whereas 44.4% of School Boards affirm that there is dialogue and the decision-making is based on considering the opinion of all members, only 7.8% of them have participated in network meetings. The first variable can be understood as a variable of internal participation, while the second one of an external participation. Being a new experience, the lack of spread and real participation is not surprising. Why can internal participation have difficulties in its implementation? One answer can be found in the study conducted by Martinez: even School Boards that showed a democratic, free and horizontal relationship; the relation was also asymmetric; the head-teacher and the teachers have positions of leadership and conduct the sessions (Martinez 2004: 26).

In other cases, passive behaviour could be the risk, especially when participation is assumed as a duty and not as a right by the community, when students do not feel confident in offering their opinion or when parents do not show interest in participation (Martinez 2004: 27, World Bank 2007: 122). All the cases are related to a traditional and hierarchical management structure. External participation measured by attendance to network's meetings was not

accomplished by School Boards. Evidently, School Boards first had concentrated efforts in their creation and strengthening.

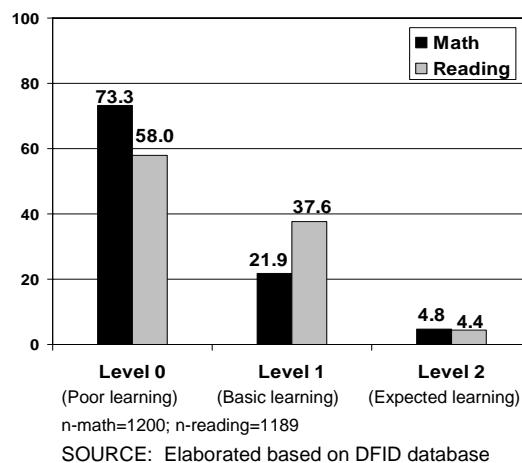
The function that is less accomplished in general terms is agreement. Similar to participation, agreement variables allow two fields of action; one external front would be to create networks and alliances with other schools or institutions; and one internal front in which the School Board concerns to obtain consensus within the School Board. Once more, the better performances are related to internal agreement, even when the percentage is low if it is compared with other functions (28.4%).

5.2 Describing Academic Outcomes

There are not great changes in academic outcomes. Multigrade and rural schools have poorer performance than monograde and urban schools.

Even when there are not control groups or previous evaluations in the same sample, Figure 8 reveals important traces. First, participatory school's students achieve poorly in both math ability and reading comprehension. Second, students perform worse in math than in reading comprehension. Third, schools in the sample achieved poorer results than other schools in San Martin and Piura (Table 1).

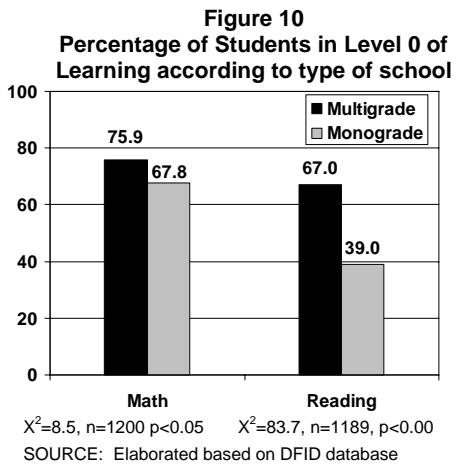
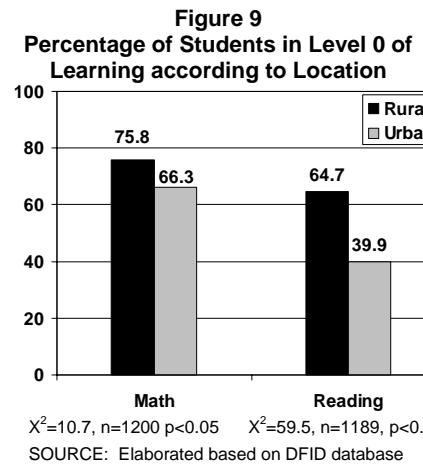
Figure 8
Student Performance in Reading Comprehension and Math Ability



Why is the percentage of students in these schools high in the level 0 (students who did not learn basic skills expected to their grade)? Part of the answer is that most of these schools are placed in rural areas and teaching is given in a multigrade classroom. As it can be seen in Figures 9 and 10, the percentage of students that did not learn math and reading skills is higher for rural or multi-grade schools than for urban or monograde schools. For instance, while 64.7% of students from rural school and 67% from multigrade school did not learn basic skills expected in reading comprehension, the percentage in urban and monograde schools is around 39%. These differences are statistically significant in reading and math. The dimension of inputs and

teaching-learning processes might influences on the achievement of academic outcomes in rural and multigrade schools. As it was seen in Chapter 2, inputs include infrastructure and materials that are deficient in rural schools. Regarding to the teaching-learning process, multigrade schools require specific methodologies for children of different grades and ages in a same room. However, traditional pre-service and in-service teacher's training systems prepare teachers for monograde schools (Little 2004: 3).

Note that this paper does not assume causal relationship among area, type of school and academic outcomes.



Vigilance functions of School Boards play an important role in academic outcomes

What is the role of school-based management in these schools? Table 4 shows cross-tabulations of math ability and reading comprehension (level 0) and satisfactory and unsatisfactory School Board performance. It is expected to have low percentages of students in level zero when School Board achieved its functions satisfactorily (S). In other words, there is an inverse relationship between the two variables.

At first glance, all the percentages of students in level zero of math are reduced when School Boards accomplished satisfactorily their function of vigilance. For instance, the percentage of students in level 0 is 78% when School Boards accomplish unsatisfactorily vigilance of teacher's attendance. When School Boards kept watch satisfactorily the teacher's attendance, the percentage of students was 68%. This difference is statistically significant and indicates that the vigilance of School Boards over teacher's attendance plays an important role in academic outcomes. Similar behavior can be observed about other functions of vigilance: student's enrolment (significant), attendance and disapproved. Similar patters are observed in reading; an exception is student's attendance, but it is not statistically significant.

However, functions of participation and agreement do not show great changes in the performance of students. Also, there are no patterns in reading comprehension. Apparently, the functions that can be related to academic outcomes –mainly in math ability- are those related to vigilance.

Can it be inferred then that participatory management has not influenced on academic outcomes? Not necessarily. First, there is evidence that vigilance functions can have a relative influence on academic outcomes. This influence does not mean a significant increase of learning in level 2, but a reduction of the number of students in level 0. Second, regression analysis might provide insights about the relation, influence and weight of the variables.

Table 4
Percentage of Students in Level 0 of Learning in Math Ability and Reading according to Unsatisfactory and Satisfactory Performing of School Boards

VARIABLES	Math Ability Level 0		Reading Level 0	
	U ^a (n)	S ^a (n)	U ^a (n)	S ^a (n)
Functions of Vigilance				
% of cases in which SB collected, discussed, and took measures about teacher's attendance	77.8 (1182)	66.9*** (1172)	58.8	57.8
% of cases in which SB collected, discussed, and took measures about student's enrolment	84.1 (1116)	69.9*** (1106)	62.3	55.8*
% of cases in which SB collected, discussed, and took measures about student's attendance	75.3 (900)	74.9 (894)	55.8	58.1
% of cases in which SB collected, discussed, and took measures about student failed	79.2 (976)	71.2* (959)	62.9	57.4
Functions of Participation				
% of cases in which there dialogue and opinion of all SB's members are considered for making decisions	76.2 (1116)	73.7 (1106)	56.5	57.9
% of cases in which SB participated in meetings of the school's network	74.7 (900)	77.3 (894)	56.0	61.5
Functions of Agreement				
% of cases in which SB explained about its functions and purposes	74.9 (1116)	73.9 (1106)	61.3	56.6
% of cases in which SB performed satisfactorily its function of agreement	72.2 (828)	72.6 (819)	53.5	61.1*

SB=School Board, U=Unsatisfactorily, S=Satisfactorily, (n)=observations *p<0.05; ***p<0.00

^a Unsatisfactory and satisfactory is constructed transforming Likert variables to dummy variable

Source: Elaborated based on DFID and UMC databases

5.3 Describing School-Based Management's Effect on Academic Outcomes

Until now, the tables and figures presented offer some factors that may have a relationship with academic outcomes. Specifically, it appears that a School Board's functions of vigilance might be correlated with improvement in academic outcomes. To explore this formally, first correlations and then multiple regression analysis have been conducted to examine whether math

ability and reading comprehension can be predicted by participatory school-based management.

As it was expected, math ability and reading comprehension correlate high and positively (0.65); meaning that the more students perform poorly in math, the more students will perform poorly in reading.

A correlation matrix (Annex B) also shows other inputs.

First, it indicates that math ability and reading comprehension are not strongly correlated with input variables included in the analysis. The exception is between reading and multigrade schools (0.36). It does not surprise that the higher percentage of students in level 0 are in multigrade schools. Note that multigrade schools are usually rural schools in which Spanish-speaker teachers are teaching to Quechua-speaker students of different grades in a same room.

Second, math ability and reading do not correlate with functions of School Board; the most eye-catching is teacher's attendance (-0.1 and -0.2). As it can be seen in previous sections, this vigilance variable is the School Board's function more related to learning improvement. The correlation also is expected to be negative because the higher the vigilance on teacher's attendance is, the lower percentage of students will be in level zero.

Finally, the correlation matrix shows that there is a positive and moderate relation among all the School Board's functions (from 0.23 to 0.78) except from vigilance of teacher's attendance. It is an interesting result: there were School Boards that focused their attention almost exclusively in teacher's attendance, while others were concentrated in participation, agreement and vigilance of student indicators. According to the analysis, schools that focused their attention in teacher's attendance were those that obtained better performance in math and reading.

To confirm these clues, multiple regressions were calculated. Variable definitions and descriptive statistics are presented in the table 5. Regression models of the link between dependent variable (math and reading) and indicators of school-based managements, inputs and context characteristics are presented in Annexes C and D. In these tables, five different models are estimated separately for math and reading. Each model includes a set of related variables and ranges from a basic model to a more complex model that includes different functions of School Boards.

In model 1, none of the variables are statistically significant except the type of school for reading. Indeed, as it was mentioned, performing in reading would depend on whether the school is multigrade or monograde. However, this significance disappears when other variables are introduced.

In addition, other statements can be made. Inputs such as the area in which a school is placed, students per teacher, and the presence of health and alimentary support do not play a role in the five models analyzed. The same can be said for the context variables. Note that inclusion of the context variables hardly increases the explained variance, and in model 2 (for math and reading) the R-squared grows at 2%. In fact, model 2 shows that the place where the school is located or the NGO that was partner in the project did not have relevant effects on the present academic outcomes.

Table 5
Variable Definitions and Descriptive Statistics

VARIABLE	n	Mean	Standard Deviation
Dependent Variables			
Proportion of students in Level 0 of math ^a	88	0.759	0.314
Proportion of students in Level 0 of reading ^a	88	0.658	0.298
Inputs Variables			
Urban=1	88	0.102	0.305
Multigrade=1	88	0.886	0.319
Ratio	88	28.115	12.606
Alimentary program=1	88	0.636	0.484
Health program=1	88	0.034	0.183
Both programs=1	88	0.011	0.107
No programs=1	88	0.318	0.468
SB created formally=0	68	0.103	0.306
SB recognized by UGEL=0	68	0.397	0.493
Context Variables			
Chulucanas=1	88	0.443	0.500
EI Dorado=1	88	0.307	0.464
Tambogrande=1	88	0.250	0.435
NGO CEPESER=1	88	0.170	0.378
NGO MIRHAS=1	88	0.261	0.442
NGO CEPCO=1	88	0.307	0.464
Functions of Vigilance			
SB took measures about teacher's attendance=5 ^b	87	0.483	0.503
SB took measures about student' enrolment=5 ^b	81	3.543	1.509
SB took measures about student's attendance=5 ^b	64	3.500	0.992
Function of Participation			
There is dialogue & all opinion is considered=5 ^b	81	4.235	0.841
SB's members participate in network=5 ^b	64	2.469	1.168
Functions of Agreement			
SB explain knew and explain purposes=5 ^b	81	4.012	0.766
SB made activities with partners=5 ^b	81	2.975	1.012

^a Data provided by UMC does not include test score, but percentage of students by each level of learning. Level 0 was used as dependent variable due to most of the cases

^b Variables are scales from 1=unsatisfactory performance at 0% to 5=satisfactory performance at 100%. For example, the statement referred to student's enrolment ranges from 1= School Board has not design, collected, discussed and took measures about student's enrolment to 5= School Board design, collected, discussed and took measures about student's enrolment.

In contrast, the explained variance increases from 14% to 27% in math and from 20% to 32% in reading when the model includes variables related to vigilance (see R² model 3). Indeed, the most important variable for reading and math is vigilance of teacher's attendance that is statistically significant. The coefficient indicates that holding all the other variables constant, keeping

watch on teacher's attendance reduces the number of students at level 0 in 0.2 points in math and 0.3 in reading⁸. In other words, whether School Board supervises over teacher's attendance, the percentage of students in Level 0 will be 53% in math and 28% in reading. In contrast, whether School Board does not pay attention to teacher's attendance, the percentage of students in Level 0 is 73.3% in math and 58% in reading.

On the other hand, the model proves evidence that vigilance of student's enrolment is not a guarantee for the improvement of academic outcomes. Functions of participation (internal or external) do not play an important role for academic outcomes (see model 4). As it can be seen for math and reading, the variables capturing participation are not statistically significant and the explained variance increase scarcely between 1 and 3% as compared with model 3. Inclusion of the agreement variables leads to an increase in the percentage of explained variance from 30 to 36 percent in math and from 33 to 34 in reading. In the case of math, performing satisfactorily function of agreement is negative and statistically significant. It means that School Boards that make alliances and activities with partners reduce the percentage of students in level 0 in 0.1 points in the Likert scale. This effect translates into 13% reduction in level 0.

In this chapter, research questions have been answered by means of different quantitative analysis. The results suggest that i) In 2004, School Boards were formally launching and they were on way to consolidate their functions. Special attention has been provided to internal functions and student's aspects; ii). In 2008, performance of students remains poor in math ability and reading comprehension. Multigrade and rural schools show the higher level of students without getting expected learning. Reading achievement is critical in these areas; iii) Functions of vigilance and particularly on teacher's attendance are the most important variables associated to academic outcomes.

⁸ At the mean effect is 0.273 for math ability and 0.517 for reading comprehension.

Chapter 6

THE CONCLUSIONS

Throughout this paper, participatory management at school –known as school-based management- has been discussed as a possible solution to improve quality of education, specifically academic outcomes. In this sense, math ability and reading comprehension were analyzed in a group of schools developing participatory School Boards from four years ago in Peru. The two main questions that this paper sought to address were whether participatory management influence academic outcomes, and what specific functions of participatory management have an impact on these outcomes. The next section offers conclusions about these questions and adds others derived of the literature reviewed and data analysis.

1. Participatory management has not have a direct influence on academic outcomes

Analysis about participatory management in rural schools of Peru evidences that percentages of students with poor learning remain similar after four years. It is evident that academic outcomes are the result of a very complex mix of school's internal and external factors. In this sense, the analysis demonstrates a minimal influence of participatory school-based management. Although under certain conditions it might reduce the percentage of students in level 0 (students that do not learn basic skills), but it does not guarantee the achievement of expected learning in math ability or reading comprehension.

2. Some functions of vigilance are related to academic outcomes

Theory and analysis in this paper support that functions of vigilance have more influence than other functions on academic outcomes. Particularly, being vigilant on teacher's attendance has been the most relevant function to reduce the percentage of students that do not learn their basic skills in rural and multigrade schools. In consequence, vigilance must be focused in qualitative aspects. For instance, teaching and learning processes are the main aspects that should be controlled.

On the other hand, student's enrolment does not have a major effect on reading and math ability. In fact, enrolment is more associated to quantitative goals than qualitative objectives.

Two problems are possible to be found regarding vigilance: first, parents and community do not show interest due to many reasons; and second, committed parents and community do not know what to keep watch and how to behave. The World Bank offers “reading speed” as a simple and clear indicator for parents (Crouch 2006: 72), but there are serious disagreements about it. Teacher's attendance might a good indicator in rural schools because absenteeism of teachers is high in schools placed in inaccessible areas.

Research and academic discussion should find other possible indicators; some of them can be related to the responsibility of the parents in the achievement of learning.

3. Participation is an option; it is not the panacea for academic outcomes improvement

Functions of participation are not related to learning outcomes. Nevertheless, participation should be followed mainly because it is part of a new way of relationship, more than in order to increase learning. This is the sense of transformational participation: participation should be practiced because it is an end itself.

According to some authors, the richness of participation is much more in its practice than in its results (Eguren 2006b: 58). Behind of this perspective is a participatory model of democracy. This model of democracy supports that affected people and private sectors have legitimate right to participate in decision-making that affect them (Pülz and Treib 2007: 95). This model is different to a representative democracy in which policy design and implementation is decided by elites.

On the other hand, although school-based management has been mentioned to improve academic learning, it was not thought and applied having into account learning of students. At least in Peru, school-based management has been part of a mayor reform of the State (Cuenca 2005b: 11). Indeed, school-based management has been part of decentralization's trend started in Latin America in the eighties. Considering this, learning improvements was used more as an argument for political reasons than for pedagogic reasons.

4. Participation is a cross-sectional dimension

Participation is a dimension that can be practiced transversally to each School Board's functions. In other words, there are not specific tasks about participation; participation is a way to do the things. For instance, vigilance of student's enrolment can be done without or with participation. Participatory management is not an assurance for a good performance in this vigilance task, and less a guarantee for achievement of academic outcomes

As it was mentioned above, participatory management is a manner of working. It has some implications in its evaluation. Participation should be evaluated by how it is practiced considering different levels, and not by what is obtained after practicing it. Second, participation should be evaluated in a cross-sectional sense; it means, it is not a specific area as it was analyzed in this paper. Participation should be measured by the manner in which different functions of the School Board worked.

5. Participation means cost, time and risks

Participation means high economical cost, consuming of time and the possibility of negative consequences. Achieving greater participation in a society is an evolutionary process; it is a long-term learning process and not a management tool (Walt, 2004 in Schaeffer, 1999: 18). In other words, School Board do not become more participative right away (Shaeffer 1994: 18).

6. Level of participation needs to be regulated

School management in Peru is thought under a participatory approach. Compulsory School Boards, inclusion of stakeholders, and decision in many areas are relevant achievements. However, level of participation has not been regulated. The next step in order to promote participation is to decide to what extent School Boards should have capacity of decision. As it has been detailed by some authors, participation can be seen as a spectrum from manipulation to total control. The norms in Peru have gaps on this aspect.

7. Participation and decentralization

Participation and decentralization are linked, but they are not the same. Participation in Peru has occurred due to major process of decentralization. Although it has meant an opportunity for creation of School Boards, it has also meant to have an instrumental use of them. Finally, real decision-making requires that decentralization transfers not only administrative tasks, but also the total power in personnel hiring and non-personnel expenditures.

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VARIABLES		DEFINITION
Dependent Variables		
1	Math ability	Percentage of students in Level 0 of Math test
2	Reading comprehension	Percentage of students in Level 0 of Reading test
Inputs Variables		
3	Locality	0=rural, 1=urban
4	Type	0=monograde, 1=multigrade
5	Ratio	Number of students divided by number of teachers
6	Alimentary services	1=if school receives alimentary service, 0=otherwise
7	Health services	1=if school receives health service, 0=otherwise
8	Both services	1=if school receives both services, 0=otherwise
9	No services	1=if school does not receives services, 0=otherwise
10	SB created formally	0=if school was launching formally, 1=otherwise
11	SB recognized	0=if school was recognized by UGEL, 1=otherwise
Context Variables		
12	Chulucanas	1=if school is located in Chulucanas, 0=otherwise
13	El Dorado	1=if school is located in El Dorado, 0=otherwise
14	Tambogrande	1=if school is located in Tambogrande, 0=otherwise
15	NGO CEPESER	1=if school's partner is NGO CEPESER, 0=otherwise
16	NGO MIRHAS	1=if school's partner is NGO MIRHAS, 0=otherwise
17	NGO CEPCO	1=if school's partner is NGO CEPCO, 0=otherwise
Functions of Vigilance		
18	SB & teacher's attendance	1=SB discussed about teacher's attendance, 0=otherwise 1=SB did not know about student's enrolment 2=SB designed instrument to collect info about enrolment 3=SB designed and collected info about enrolment 4=SB designed, collected and discussed about enrolment 5=SB designed, collected, discussed and took measures
19	SB & student' enrolment	1=SB did not know about student's attendance 2=SB designed instrument to collect info about attendance 3=SB designed and collected info about attendance 4=SB designed, collected and discussed about attendance 5=SB designed, collected, discussed and took measures
20	SB & student's attendance	1=There is not dialogue 2=Dialogue but opinions are not considered 3=Dialogue but some opinions are considered in important decisions 4=Dialogue but opinions are considered in only some important decisions 5=Dialogue and opinions are considered in all important decisions 1=SB did not participate in network 2= Head-teacher participated in network 3= Head-teacher and some members participated in network 4= Head-teacher and many members participated in network 5= SB's members participated in network
Function of Participation		
21	There is dialogue	1=SB did not know purposes and functions 2= SB knew some purposes and neither functions 3= SB knew some purposes and some functions 4= SB knew purposes and functions 5= SB knew and explain purposes and functions
22	SB participates in network	1=SB did not identify possible partners 2=SB identified possible partners 3=SB identified and contacted possible partners 4= SB subscribed alliances with possible partners 5=SB made activities with partners
Functions of Agreement		
23	SB explains roles and purposes	1=SB did not know purposes and functions 2= SB knew some purposes and neither functions 3= SB knew some purposes and some functions 4= SB knew purposes and functions 5= SB knew and explain purposes and functions
24	SB accomplishes agreement	1=SB did not identify possible partners 2=SB identified possible partners 3=SB identified and contacted possible partners 4= SB subscribed alliances with possible partners 5=SB made activities with partners

ANNEX A: Definition of Variables in Regression An

ANNEX B: Matrix of Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1 Math	1.00																							
2 Reading	0.65	1.00																						
3 Locality	-0.13	-0.23	1.00																					
4 Type	0.15	0.36	-0.66	1.00																				
5 Ratio	0.10	0.13	-0.14	0.15	1.00																			
6 Alimentary services	0.14	0.04	0.22	-0.15	0.16	1.00																		
7 Health services	0.02	0.01	0.13	-0.12	-0.07	-0.29	1.00																	
8 Both services	0.02	-0.11	-0.05	0.06	-0.03	-0.16	-0.03	1.00																
9 No services	-0.16	-0.02	-0.27	0.19	-0.12	-0.86	-0.16	-0.09	1.00															
10 SB created formally	0.14	0.08	0.03	0.14	-0.15	0.04	0.18	0.39	-0.23	1.00														
SB recognized by superior level	-0.12	-0.10	0.35	-0.19	-0.03	0.36	0.26	0.15	-0.54	0.38	1.00													
12 Chulucanas	0.30	0.20	-0.17	0.09	0.23	0.25	-0.16	-0.09	-0.16	-0.23	-0.61	1.00												
13 El Dorado	-0.12	-0.10	0.35	-0.19	-0.03	0.36	0.26	0.15	-0.54	0.38	1.00	-0.61	1.00											
14 Tambogrande	-0.19	-0.10	-0.22	0.13	-0.21	-0.70	-0.13	-0.07	0.81	-0.19	-0.50	-0.38	-0.50	1.00										
15 NGO CEPESER	-0.17	-0.06	-0.23	0.14	-0.25	-0.73	-0.14	-0.08	0.85	-0.20	-0.52	-0.32	-0.52	0.96	1.00									
16 NGO MIRHAS	0.29	0.17	-0.15	0.08	0.27	0.30	-0.15	-0.09	-0.22	-0.22	-0.59	0.96	-0.59	-0.37	-0.39	1.00								
17 NGO CEPCO	-0.12	-0.10	0.35	-0.19	-0.03	0.36	0.26	0.15	-0.54	0.38	1.00	-0.61	1.00	-0.50	-0.52	-0.59	1.00							
18 SB & teacher's attendance	-0.13	-0.21	-0.15	0.09	0.09	0.08	-0.21	-0.12	0.05	-0.19	-0.31	0.41	-0.31	-0.09	-0.13	0.45	-0.31	1.00						
19 SB & student' enrolment	0.09	0.07	0.23	-0.13	0.21	0.62	0.06	0.03	-0.69	0.12	0.42	0.29	0.42	-0.80	-0.85	0.35	0.42	0.10	1.00					
20 SB student's attendance	0.03	0.04	-0.01	-0.07	-0.05	0.34	-0.02	-0.06	-0.33	0.03	0.05	0.39	0.05	-0.49	-0.45	0.37	0.05	0.02	0.46	1.00				
21 There is dialogue	0.08	-0.04	0.18	-0.09	0.14	0.59	0.02	0.12	-0.66	0.24	0.57	-0.01	0.57	-0.66	-0.75	0.10	0.57	0.04	0.78	0.35	1.00			
22 SB participates in network	0.07	0.00	0.08	-0.10	-0.11	0.46	-0.10	-0.17	-0.38	-0.10	0.28	0.01	0.28	-0.34	-0.35	0.03	0.28	0.02	0.35	0.32	0.33	1.00		
SB explains roles and purposes	0.26	0.12	0.07	0.06	-0.04	0.38	0.21	0.00	-0.49	0.23	0.14	0.39	0.14	-0.60	-0.63	0.45	0.14	0.09	0.75	0.46	0.62	0.23	1.00	
24 SB accomplishes agreement	-0.08	-0.05	0.11	-0.07	-0.06	0.35	-0.10	-0.25	-0.25	-0.03	-0.05	0.27	-0.05	-0.24	-0.31	0.35	-0.05	0.25	0.43	0.41	0.43	0.30	0.55	1.00

ANNEX C: Determinants of Math Ability

VARIABLES	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
_cons	0.9	0.5	0.9	0.5	1.4	0.8	0.9	1.0	0.1	0.6
School's inputs										
Locality: rural-urban	-0.1	0.2	-0.1	0.2	-0.1	0.2	-0.1	0.2	-0.1	0.2
Type: muligrade-monograde	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	-0.0	0.1
Student/Teacher ratio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Food support service	-0.1	0.2	-0.1	0.2	0.0	0.2	-0.1	0.2	0.1	0.2
Health support service		(dropped)			-0.1	0.2	-0.0	0.2		(dropped)
Food and health support services	-0.1	0.4	-0.1	0.4	-0.2	0.4	-0.2	0.4	-0.2	0.4
No support services	-0.2	0.2	-0.2	0.2		(dropped)		(dropped)	0.1	0.2
SB is formally created	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2
SB has been legally recognized by superior level	-0.2*	0.1	-0.2*	0.1	-0.1	0.3	-0.1	0.3	0.1	0.3
Context										
El Dorado				(dropped)	0.2	0.3	(dropped)		(dropped)	
Chulucanas				(dropped)			0.3	0.3	0.2	0.3
Tambogrande				-0.2	0.3	(dropped)		(dropped)	(dropped)	
NGO CEPESER				0.1	0.3	-0.3	0.4	-0.2	0.4	(dropped)
NGO MIRHAS				(dropped)		(dropped)		(dropped)	0.2	0.4
NGO CEPCO				(dropped)		(dropped)		(dropped)	(dropped)	
State				0.2	0.4	(dropped)		(dropped)	(dropped)	
Functions of Vigilance										
SB discussed, and took measures about teacher's attendance					-0.2**	0.1	-0.2**	0.1	-0.2*	0.1
SB discussed, and took measures about student's enrolment					0.0	0.0	-0.1	0.1	-0.1	0.1
SB discussed, and took measures about student's attendance					-0.1	0.0	-0.1*	0.1	-0.1	0.1
Functions of Participation										
There dialogue and opinions of members are considered for making decisions							0.1	0.1	0.1	0.1
SB participated in meetings of the school's network							0.0	0.1	0.0	0.1
Functions of Agreement										
SB explained about its functions and purposes									0.18	0.11
SB performed satisfactorily its function of agreement									-0.10*	0.05
Number of cases	68.0		68.0		59.0		59.0		59.0	
R-squared	0.12		0.14		0.27		0.30		0.36	
Root MSE	0.29		0.30		0.28		0.28		0.27	

***p<0.01; **p<0.05; *p<0.10

ANNEX D: Determinants of Reading Comprehension

VARIABLES	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coeff.	S.E.								
_cons	0.2	0.5	0.2	0.5	0.4	0.9	0.6	1.0		
School's inputs										
Locality: rural-urban	-0.0	0.2	-0.0	0.2	-0.1	0.2	-0.1	0.2	-0.1	0.2
Type: muligrade-monograde	0.3**	0.1	0.3**	0.1	0.3*	0.1	0.3*	0.1	0.3	0.2
Student/Teacher ratio	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	-0.0	0.0
Food support service	-0.1	0.2	-0.1	0.2	-0.1	0.2	-0.1	0.2	-0.0	0.2
Health support service		(dropped)		(dropped)	-0.1	0.2	-0.1	0.3		(dropped)
Food and health support services	-0.5	0.3	-0.5	0.3	-0.6	0.4	-0.6	0.4	-0.6	0.4
No support services	-0.2	0.2	-0.1	0.2		(dropped)		(dropped)	0.1	0.3
SB is formally created	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2
SB has been legally recognized by superior level	-0.1	0.1	-0.1	0.1	0.0	0.3	-0.0	0.3	0.1	0.3
Context										
El Dorado 4				(dropped)		(dropped)		(dropped)		(dropped)
Chulucanas 3				(dropped)		0.3	0.3	0.2	0.3	0.2
Tambogrande 5				-0.3	0.3	(dropped)		(dropped)		(dropped)
NGO CEPESER				0.2	0.3	-0.1	0.4	-0.1	0.4	(dropped)
NGO MIRHAS				(dropped)		(dropped)		(dropped)		0.2
NGO CEPCO				(dropped)		(dropped)		(dropped)		(dropped)
State				0.2	0.4	(dropped)		(dropped)		(dropped)
Functions of Vigilance										
SB discussed, and took measures about teacher's attendance					-0.3***	0.1	-0.3***	0.1	-0.3***	0.1
SB discussed, and took measures about student's enrolment					0.0	0.0	0.0	0.1	0.0	0.1
SB discussed, and took measures about student's attendance					-0.1	0.1	-0.1	0.1	-0.1	0.1
Functions of Participation										
There dialogue and opinions of members are considered for making decisions							-0.0	0.1	-0.0	0.1
SB participated in meetings of the school's network							0.0	0.0	0.0	0.0
Functions of Agreement										
SB explained about its functions and purposes									-0.1	0.1
SB performed satisfactorily its function of agreement									-0.0	0.1
Number of cases	68		68		59		59		59	
R-squared	0.18		0.20		0.32		0.33		0.34	
Root MSE	0.28		0.29		0.29		0.29		0.30	

***p<0.01; **p<0.05; *p<0.10

