PERUVIAN PRIMARY EDUCATION: IMPROVEMENT STILL NEEDED
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I had found…that once people had a good school they would always demand a good school…
Hannah Breece, teacher in a one-room school in Alaska, around 1904 (Jacobs, 1995, p. 49)

I. INTRODUCTION

Peru’s proudest achievement in public education has been to increase access to the point at which it is now nearly universal at primary level.¹ Yet Peru is a country characterized by enormous diversity and marked inequity, all of which is reflected in its schools. In addition, Peru’s public schools suffered severely from the economic difficulties and political turmoil of the 1980’s, such that virtually all observers have noted a severe decline in quality. There are marked differences between the public schools and many private schools; this article addresses only public primary education (grades 1-6).

In 1993, a thorough diagnostic evaluation spelled out the serious problems in the public schools, and Peru embarked on large-scale Project MECEP,² with the goal of improving public primary education. The purpose of this paper is to reflect on what changes may be noted in children’s classroom experience after the reform efforts of the nineties, and to present recommendations for continued efforts at improvement.

This paper focuses on classrooms and schools. The observations are based on my own, subjective, impressions of the life of children, teachers and principals in schools I have visited.³ Larger issues such as financing and decentralization have been well dealt with by others, and will be mentioned only briefly, in relation to their impact on children’s classroom experience.

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¹ The estimated percentage of children age 6 to 11 who were in school in 1999 was 96.9%. This figure includes children attending both public and private schools. The public schools served about 87% of the children enrolled in grades 1-6 in both 1993 and 1998 (Guadalupe, 2001).
² The original project was called Programa Especial Mejoramiento de la Calidad de la Educación Primaria, financed by the Peruvian Government and a loan from the World Bank, with some additional funding by the GTZ (German foreign aid) for support of teacher training. Later, it became Programa Especial Mejoramiento de la Calidad de la Educación Peruana, and is called that on several MED publications.
³ The reflections and observations in this paper are based on:
   • My own experience working in various projects in Peru since 1993, including work in the Ministry of Education (MED) for 14 months as a member of the team planning and initiating implementation of the teacher training component for Project MECEP.
   • My personal observations in well over 200 classrooms between 1993 and 2001, as well as discussions with teachers, principals, district and regional personnel. (See Appendix 1)
   • A series of interviews of Peruvian educators in April 2001. (See Appendix 1)
The paper is organized as follows. Section II is a description of the schools in the early nineties, as well as an outline of Project MECEP, including a fuller description of its teacher training project. Section III provides informal answers to two questions, “What happened?” and “What is the situation now?” Section IV presents a synthesis of recommendations for the future, while Section V is the conclusion.

II. PERUVIAN PUBLIC PRIMARY SCHOOLS IN THE EARLY NINETIES

A. Observations
Following are a few vignettes from my visits to elementary classrooms between 1993 and 1995.

Physical Setting and Resources. A typical classroom: Most of the windows were broken, so that the noise from the playground immediately outside was always present. The children had no books. In fact, there were no books in the room. There was nothing on the walls. There was no cabinet for storage, and nothing to store--no laminas (charts), no maps or globes, no teaching aids. The room was dark, sometimes lacking electricity. When there was electricity, lighting was often a bare bulb; wires hung loosely across the ceiling. The pupils sat at two-person desks with sloping tops; these desks were usually broken, with scratched and bumpy surfaces. The only other furniture in the room was sometimes a small table that the teacher used as a desk. Schools routinely ran double sessions, with another set of teachers coming in the afternoons.

Instructional Methods. A fourth grade: the teacher walked around the room, dictating a social studies lesson from memory. “En las ciudades hay mucha gente...En la sierra hay...” The children copied these sentences into their notebooks. These omnipresent small notebooks, purchased by the parents, were the only material one saw in every classroom. The teacher finished the dictation, and the lesson was over. There was no discussion beforehand, no discussion afterwards, no questions to determine if the children understood the content.

In a second-grade classroom, a paragraph about Tupac Amaru was written on the board. The blackboard was simply black paint over a bumpy wall; it was very difficult to read the text. The children were copying the text into their notebooks, in what seemed to me surprisingly elegant handwriting. I asked several different children questions about Tupac Amaru. They looked at me in puzzlement. They appeared not to know and not to care who he was. My impression was that they were not accustomed to talking about their schoolwork; nor were they accustomed to thinking that it might be in any way interesting or relevant to them.

In a first grade which did have reading workbooks, as well as a copy of the alphabet taped up over the blackboard. The teacher was having the children recite words written on the blackboard. I was impressed by the difficulty of many of the words, which were much harder than one would find in a first grade in the U.S. I asked some of the children about the words. They could indeed read them. I reflected on the fact that Spanish is really an ideal language in which to learn to decode. Unfortunately, I also observed that the children didn’t know the meaning of most of the words they were “reading”. In other classrooms I noted time and again the absence of any instruction or any activities to encourage comprehension of text, or interest in it.
In another first grade, I observed for over 30 minutes while the teacher met with one child at a time. The child would come to the front and hand his notebook to the teacher, who went over it, silently, making red marks on mistakes. During this time, the other children in the room chatted with each other, wiggled around, or just sat silently. None of them did any type of schoolwork. Later I asked the teacher what happened when the children had things wrong in their notebooks, thinking perhaps that would be the basis for future instruction. He looked at me in a puzzled way, and said, “Well, they get bad grades” (“Bueno, sacan malas notas”). I noted everywhere this attitude, “I taught it, but they didn’t learn it.”

We visited a night school program: Primaria para Adultos. This was the third session in many schools. I was surprised to note many children in the classes, but later learned that was typical. “These children work during the day; who can turn them away?” We chatted with the principal; he thought our questions interesting, so he gathered up a group of teachers to talk with us. We talked for at least 45 minutes. After our talk he took us on a tour of the school. Adults and children were sitting in the classes doing nothing, several of them sleeping. There were no teachers in any of the rooms. I realized with a start that the principal had pulled all of the teachers out of class to come and talk with us. They left no assignment, so no one did anything for that hour of school. No one except me was surprised or concerned by this. I observed this total disregard of the value of educational time on task repeatedly, everywhere I visited.

My colleague visited several schools in a rural area in the sierra. At each school she visited or passed, she noted the courtyard full of children at recess (recreo). They were at recess at 9:30, at 10:00, at 10:30, at 11:00. She asked the specialist with her whether there was some sort of special staggered schedule for recess. The answer, “You don’t understand--these children have a very short attention span. They need frequent breaks.”

In most classrooms I visited, the children seemed to be of noticeably different sizes, with some very tall children hunched over in seats in the back. I realized these were children who had repeated one or more grades. They received no different instruction the second or third time, but were supposed to just keep on copying the same things into their notebooks. Many apparently did no work at all, but just sat there, and I saw no teacher give them any attention.

I walked unannounced into a 6th grade. There was at least half an hour left in the school day, but students and teacher were just sitting, apparently doing nothing in particular. Taken by surprise and obviously flustered by my presence, the teacher said she wanted to show me how well the children could work. In this room about half of the children had a reading book. The teacher, who gave the impression of thinking up a lesson on the spot, picked a selection of about a page and a half, and asked the children to draw a circle around the nouns, a rectangle around the adjectives, a triangle around the verbs, and still other shapes around pronouns and words with the accents in certain places (mádrúsulas, etc.). Some children set right to work. Several others did nothing. A boy at the back did nothing for a time and then began to draw little shapes around the words,

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4Peru is roughly divided into 3 geographical areas: the narrow strip of coast, which is mostly desert intersected by river valleys, the mountainous area called the sierra, and the tropical rainforest on the east side of the mountains, known as the selva.
seemingly at random. Meanwhile, the teacher, whose loud and peremptory voice was terrifying even to me, ordered one child to go to the front of the room and read aloud from the text. The child obeyed. As he read, the teacher began talking to me. As she talked, the child’s voice became softer and softer. After a few minutes, she angrily ordered him to start over and read more loudly because we couldn’t hear him. The child, whose hands were shaking a bit, began again in a louder voice. As he read, she began talking again. As she talked to me, the child’s reading gradually petered out. He stood there frozen, holding the book, looking petrified. She talked and talked. I realized that the child was stuck there, afraid to move, afraid to draw her attention in any way. The only way I could think of to rescue him was to leave. I complimented the teacher on her class, and left the room.

I was often stuck by the unpleasant way in which teachers spoke to the children, frequently criticizing them publicly and even insulting them (calling children stupid). I saw virtually no use of praise. Most teachers did not mention discipline problems, but I gradually became aware that many did indeed have difficulty with discipline, since children were usually expected to keep silent in extremely boring classroom situations. I think teachers were disinclined to discuss this, because they may have felt that to admit to having discipline problems was an admission of failure. However, I came to think that the very frequent, long recesses were not only caused by the fact that teachers had no idea what to do with the children, but were a welcome respite from discipline problems.

The Teachers. To reach this fourth grade, we had to climb a broken staircase, which had steps missing, boards hanging loose. In the tiny fourth grade classroom we found the first attempt we had seen anywhere to make the room attractive. The room was clean and orderly. On the wall there was one small display “Un Centro de Aseo” (personal hygiene). I asked the young teacher where she got the materials for the display. She said they were from the MED (and therefore available to other teachers as well). She enthusiastically told me of a workshop she’d attended, offered by a textbook publisher, which had helped her learn how to teach reading. She showed me the plan she uses, which was what I think of as a typical traditional reading lesson, often called a “Directed Reading Activity”, starting with motivation and introduction of vocabulary, asking questions about content. The teacher was thrilled with this new method, saying it was the first time she had ever been given anything really useful to help in her teaching.

Everywhere we went, we asked teachers what they needed. Without exception they told us that they needed books and materials, and they wanted training. They particularly wanted help in practical ways. They told us the training they usually got was very theoretical and did not help them figure out what to do in the classroom.

I attended several sessions of a summer school class for teachers, in a highly respected university. I noted that there was no textbook, and the teacher gave out no reading list. Nor did she ever suggest that the students read anything. The entire content of the course was what the teacher said. I began to understand the way in which the absence of resources contributes to the idea that “the teacher knows all there is to know”. In this class, the goal of the teacher seemed to be simply to get knowledge from her head into the heads of the students.
We visited a school in a rural area of the northern sierra that had 80 children in the first grade, many of them Quechua speakers. We were there after school hours, so no one was in the school, but we spoke with a parent and with the local priest, who told us that there was a position approved for another teacher, but that no teacher had been provided. I visited the room, which was small and completely filled by about 30 broken desks. I wondered how 80 children could possibly fit in. There were no teaching materials in the room, nothing on the walls, no books. On the windowsill were several pieces of broken glass, covered with a thick coating of dust. They must have been sitting there for weeks, perhaps months. I pointed out the glass to my Peruvian colleague, who murmured, “What would it cost to pick up the glass?” I reflected on what the presence of this glass indicated about the state of mind of the teacher.

In October of 1993, teachers were earning 180 soles per month (approximately $90). This was less than the salary of taxi drivers, of many maids and service workers. I learned that teachers routinely had one or more other jobs. They generally had to leave school immediately to go to their other work; no one had time out of school hours for planning, working with other teachers, or correcting papers.

Administration and Supervision. We went with a specialist from the local school district (USE) to visit a school on the outskirts of a town in the southern sierra. There was no transportation, and the specialist had no money even for taking a bus. The buses were all full, so finally we took a taxi to an area that did not appear to be served by buses in any case. The previous two days had been holidays in this district, but the day of our visit was an official school day. We found no teachers in the school, and no principal, just a few children playing. They told us that one teacher did come, but said, “I’m not going to teach here all by myself!”, and left. The specialist did not seem surprised, and did not intend to report this or take any action at all. Later we learned from a group of young teacher-trainers who worked out of the regional office that one of their major problems was going to a remote school to give a workshop and finding no one there.

Frequently I entered classrooms to find the room full of children but no teacher present. This did not seem to bother any one. In most such cases the teacher was present in the school but had left the class for some reason.

In central Lima I spoke with a man who’d been a principal for 30 years. He told me his last raise had given him 30 centavos more per day. I mentioned that in the US many principals find the principalship to be a lonely job, and asked him if he ever got together with other principals. He brightened, and told me enthusiastically that that year (1993) for the first time ever, he and 6 other colleagues were meeting regularly. He added, almost with tears in his eyes, “You know what we did? We pooled our money, and at our last meeting we had refreshments (refrigerio)!” I asked him what he did if he had a bad teacher. He responded, “Well, if the teacher is bad at discipline, you can move him to the first grade. If he’s too strict for the little ones, you can move him to an upper grade.” Two things about his remark struck me. One was the idea that it didn’t matter who taught first grade; principals in the U.S. commonly put their very best teachers in first grade, considering it the most important. I also inferred that his evaluation of teachers included only
discipline, not instructional ability. I then asked whether he had any control over hiring or firing teachers. He did not.

I tried to learn from other principals more about their role in supervision and evaluation of staff. The common answer was that there used to be good supervisors, but that that system did not exist any more. No principal I spoke with thought of himself as an instructional leader. Still trying to understand the system of supervision and evaluation of teachers, I spoke with an elementary specialist in a regional office. He was responsible for 180 schools, but had no money for transportation and therefore rarely visited any schools.

Another colleague visited a one-room school (escuela unidocente) in a rural area. A single teacher had 180 elementary students in grades 1-6. She received 180 soles per month, 1 per student. On her own, without additional pay, she had divided the class into two sessions, so that she could teach “only” 90 students at a time. Although this was exceptional, I was struck by the large size of typical classes (40-60 was common). The largest classes were often in the lowest grades, because of the “pile-up” of children repeating grades. I was told that this was a deliberate strategy; sixth grade was considered to be the most important, since at that grade teachers had to prepare students for the next level.

B. The Diagnóstico of 1993
The diagnostic evaluation, or Diagnóstico (Ministerio de Educación, 1993), presented at a seminar in 1993 as a first step in planning the World Bank project, was consistent with the observations presented above, although it included some important aspects of the educational system not directly observable in classrooms. The following were the key findings:

Physical Setting and Resources. The schools suffered from an almost total lack of teaching materials. The textbook study done for the Diagnóstico indicated that there were no texts approved by the Ministry, and that existing texts available commercially were a mishmash of materials copied from various sources. Moreover, the government provided no texts or teaching materials to the schools. The Diagnóstico report on infrastructure concluded that more schools were not needed, but that repairs and furniture were badly needed.

Instructional Methods. Classroom instruction was predominantly in “frontal” mode, the type of instruction teachers themselves had experienced all of their lives. “Instruction” was dictation or copying from the blackboard. Group work was rare, discussion and activities to promote problem solving virtually non-existent. This type of instruction led to a rote learning, “memoristic” and passive learning style in which students accepted little responsibility for their own learning, and were unlikely to become involved or interested in it.

Evaluation, both formative and summative, was lacking. Most teachers did not have even the concept of using informal classroom evaluation to plan instruction appropriate for pupils’ needs.

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5 Summative evaluation is evaluation after the learning experience, often at the end of the term or year, to find out what students learned. Formative evaluation, far more important for improvement of instruction, is daily, ongoing evaluation by the teacher done for the purpose of planning further instruction to meet students’ needs.
There was no formal testing program, and therefore no data, even of the most minimal sort, as to children’s achievement in school.

Time issues were seen as a major problem; these included lack of attendance by both teachers and students, the very short teaching day (usually just 3 1/2 hours) which included long gatherings in the courtyard of the school at the beginning of each session, long recess periods, use of school time to prepare for and take part in holidays and festivals, as well as the extremely poor use of the limited time remaining for instructional purposes.

The repetition rate in first grade was over 30%, with many children repeating more than once. The drop out rate was also high; children were frequently caught in a pattern of repeating several times and then dropping out. These figures were higher in poor, rural areas, and lower in the cities.6

The Teachers. An extraordinary drop in teachers’ salaries, in combination with the years of terrorism often focused on schools, had caused the departure of many certified, experienced teachers from the schools. Less than half of the teachers held certification in 1990, whereas that figure had been 81.6% in 1970 (Ministerio de Educación, 1933, p. 36). Some had only high school educations. Prestige of teachers had dropped and morale was low.

Undergraduate teacher preparation (formación docente) was reported to be highly inadequate. The focus was on theoretical, lecture-style presentation. Teachers in training learned almost nothing practical about how to apply the theories in the classroom. They needed training and practice in strategies to help children become involved and interested in their learning, techniques for teaching problem solving, expertise in evaluation of children’s learning in order to plan further instruction.

In-service training (capacitación) had been lacking for many years. Training had recently been offered by the Ministry of Education (MED), but it was typically organized in short sessions for large groups, and was said to be lacking in practical content. Participants of the Diagnóstico seminar dismissed it as worthless.

Administrative Issues. The curriculum at primary level was reported to be adequate for the most part, in need of revision rather than sweeping changes. However, both curriculum and administration were viewed as too centralized; centralization not only made it difficult or impossible to meet local needs swiftly and effectively, but hindered efforts to adapt educational offerings for a school population characterized by enormous diversity.

Principals had virtually no power to influence educational policy or introduce changes in their schools. They had no budget, could not hire or fire teachers. No special training or certification

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6 The rate of repetition is considered a measure of “internal efficiency”. When the rate is high, many more children are held in the system than need be. If the quality of a system improves so that children learn more and fewer are retained, costs go down, and it is said that internal efficiency has improved.
was required for principals. The principal’s main responsibility was not conceived to be that of instructional leader of a school, with an active role in supervision and evaluation of staff.  

The administrative system at the upper levels was a Byzantine labyrinth. The introduction of Regional education directors had served simply to create a set of regional replicas of the Ministry in Lima. Administrative levels existed at the district, the Department, the Sub-Region, the Region, and in Lima.

Statistics were inadequate; no one knew for sure how many students or teachers actually existed, or where, nor how many teachers taught in each grade. A special school census had been undertaken in 1993, in order to try to establish a reliable data base.

C. Project MECEP

Project MECEP, focusing on primary education, had many goals:

- Improvement of educational quality through revision of curricula, development and provision of texts and materials, and in-service teacher training
- Improvement of infrastructure and provision of equipment such as desks
- Improvement (modernización) of educational administration, to include:
  - Reorganization
  - Training of school principals, regional and local educational administrators
  - Decentralization of schools (in the original plan)
  - Development of a nationwide system of information to maintain data re schools, students, etc., in a network of computers
  - Development of a system for measuring student achievement

The Quality Component. This component of the project included three teams. The first was responsible for revising the curriculum in each grade. The heart of the new curriculum approach was a change from the traditional, fact-based, rote learning approach to one in which students would participate actively in their own learning and develop critical thinking and problem solving skills. The team’s plan involved revising curriculum one grade at a time, and included extensive pilots of the new curricula in classrooms throughout the country in the year before actual implementation. Since their work was the underpinning for the other two teams, they would proceed grade by grade, always one year in advance of the other teams.

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7 Considerable research has shown that in poor, difficult school situations, successful student learning can be achieved if the principal is a strong educational leader.
8 The International Development Bank (IDB) was to work in the areas of preschool and secondary education, and of course there were numerous projects of other international organizations and NGOs.
9 The team to develop achievement assessment (Medición) would also work closely with the quality component. Since there was no nationwide testing system at all, the task of this team was to plan for the development of such a system and to implement it.
10 The MED had already done considerable work with Unicef on revision of the first grade curriculum so that it would mesh more smoothly with preschool curricula. Therefore, it was anticipated that the first grade curriculum would be ready for application when Project MECEP began implementation.
The team working on texts and materials was to prepare careful specifications and bidding requirements for texts, workbooks and instructional materials. These would all be based on the newly revised curricula. Another task of this team was to develop plans for the national distribution of texts and materials as well as guidelines for their use and care in the schools.

This paper will focus primarily on the work of the teacher training team, since it was responsible for the actual application in classrooms of the work of the other two teams. Its task was to plan training for all of the elementary teachers in non-bilingual programs in the country, to enable them to use the newly revised curricula and new texts and materials. Working together for a year, this team developed a program called the Plan Nacional de Capacitación Docente (PLANCAD).

The PLANCAD team confronted its major problem almost immediately. Many of the teachers to be trained knew virtually nothing about teaching. It was not that they were good but old-fashioned teachers; the problem was that most of them were unfamiliar with traditional teaching methods. They did not know how to arrange a classroom, how to plan a lesson or a sequence of lessons, how to plan a day or a week. They knew next to nothing about evaluation, and did not know how to diagnose students’ needs and provide instruction to small groups for reinforcement of needed skills. And the curriculum revision upon which the MED was embarked was a highly sophisticated one, one much in tune with the needs of a society hoping to educate students for the new globalized economy.

Thus, the task was not only to move teachers 180° from a frontal, authoritarian teaching style, but to teach them everything they needed to know about teaching, including the new participative approach. It became clear that this training could only be a very small first step in meeting the massive needs. The final plan included three weeks of training during one year for each teacher, two in the summer and one follow-up week during the mid-year vacation in August. Since the curriculum and textbooks were to be prepared grade by grade, the teacher training was to follow suit. An important component of the plan was visits by the trainers to classrooms during the year of the training, to demonstrate teaching methods and help the teachers solve problems they were encountering. To meet longer term needs the plan included a provision for an ongoing program of teacher training to continue after the project was finished. It was envisioned that the ongoing plan should be school-centered, giving individual schools and teachers the right to select the training they needed from an array of offerings approved by the MED.

Feeling strongly that the training could not be successful without full understanding and participation of school principals, the team planned that principals would be trained first. This training would be in addition to the training in administrative skills provided elsewhere in the project, and would focus specifically on the desired attributes of the new teaching methods, the reasons for them, and methods for assisting parents to understand and participate in the new approach. Principals were also to assist teachers to form support groups that would meet

11 Since no special curricula or materials were yet available for multigrade teachers, they were to receive the curricula and texts for each grade they taught. Those who taught two grades would attend the PLANCAD training provided for one of their two grade levels. Training for those teaching three or more grades and those in one-teacher schools was to be scheduled later in the project, after curricula and materials had been developed for them.
regularly and also meet with the visiting teacher trainers. Orientation would also be provided to regional and district staff.

The plan specified that the training should be done in the manner in which the teachers were to be expected to teach. This was vital, since none of the teachers had experienced the new kind of participative approach. Therefore, group size would be no more than 35, and training sessions would include teaching demonstrations with real children.

The principal objectives for the training were:

- To familiarize the teachers with the use of the new curricula, texts and teaching materials
- To help them improve their use of instructional time, by teaching them how to plan lessons, units, the school day, etc.
- To teach them many options to encourage children to participate actively in their own learning, e.g., use of group work, paired learning, peer tutoring, independent work for students and groups of students, etc.
- To emphasize the importance of formative evaluation and its use in reformulating and reteaching material as needed for small groups of children.

Possibly the most innovative aspect of PLANCAD was the decision not to adhere to the custom of having MED staff do all the training, but instead to contract the training out to institutions all over the country. These could be universities, teachers’ colleges (ISP’s), NGO’s or associations of teachers formed for the purpose of the training. A major problem, of course, was that very few people in the country were actually familiar with the style of teaching required, so PLANCAD staff developed training manuals and training for the institutions that would be contracted.

III. WHAT HAPPENED? THE SITUATION NOW

A. Implementation of Project MECEP

The whole project got off to a very rocky start. The quality component was to be funded with Peru’s counterpart funds. The government was very eager to get the project going in early 1995, presumably because elections were forthcoming. However, most of the promised funds never materialized, there was a change in the project management and little administrative support for the quality component. In fact, the textbook team resigned in protest when the bidding specifications were changed. However, PLANCAD did begin in 1995, in very limited fashion, with just 25 institutions to do the training, rather than the 200 that had been expected. It was not possible to train principals that first year.

Project MECEP did officially get underway in 1996, and concluded in June, 2001. In relation to the original objectives listed above, the following took place (Ministerio de Educación, 2000b).

B. Quality Component: curricula, texts and materials, and in-service teacher training

During the course of the five-year project, revised curricula were prepared and distributed to teachers in grades 1-6, as were corresponding textbooks and teaching materials. The first grade
textbooks distributed in the first year were so unsuccessful that the MED discontinued providing books to the first grade for a time, later developing a textbook/workbook combination that was distributed to first grades. Textbooks or combination workbook/textbooks were provided in grade 2 through 6. Classroom libraries and instructional materials were provided at all grades; these included a series of original children’s books written in each region. There were chronic difficulties with distribution of texts and materials, which routinely arrived late.\(^\text{12}\)

PLANCAD provided training to 89,550 teachers in grades 1-6.\(^\text{13}\) Although many multigrade teachers were included in the PLANCAD training, the training for teachers of one-room schools did not take place. There were several isolated regions of the country in which PLANCAD was unable to contract with qualified institutions to do its training.\(^\text{14}\) At all times there were difficulties obtaining budget needed.\(^\text{15}\) Another common problem was the constant reassignment of teachers. Teachers who had been trained in one grade often moved to another school and/or a different grade. It was not infrequent for teachers to be assigned to schools so late in the year (after school started) that they missed the training.

The GTZ provided additional support to PLANCAD in the later years of the project, and also provided support for training for teachers in bilingual programs (PLANCAD-EBI) as well as for the improvement of undergraduate teacher training.

- **Improvement of infrastructure and provision of equipment such as desks**

  Improvements were made to infrastructure; these accounted for 60% of the project budget. (Instituto APOYO, 2001) Many classrooms were repaired, new ones built and new desks or tables provided for classrooms. At the same time the government built many new schools.

- **Improvement (modernización) of educational administration**

  The information system was partially developed, and the MED’s capacity to gather accurate statistics has been improved. Decentralization as originally planned did not take place, although some recent measures provide more autonomy to the schools. Over 6000 school principals were trained in administration, as were over 2000 regional and national administrators. Principals trained were expected to develop a “Proyecto de Desarrollo Institucional” (School Improvement Project).\(^\text{16}\)

\(^\text{12}\) A recent impact study (Instituto APOYO, 2001) pointed out as a sign of progress that after 1997, texts were often only a month or two late instead of arriving in mid-year.

\(^\text{13}\) In addition, the MED had PLANCAD train thousands of teachers in preschool and secondary (See Appendix 2)

\(^\text{14}\) The Instituto APOYO (2001) reports that in a sample of teachers interviewed, PLANCAD training was not received by 11% of teachers in complete schools (all 6 grades), while 25% of multigrade teachers had not received PLANCAD training.

\(^\text{15}\) Over the 5 year period, the training cost approximately 850 soles per teacher, or about $243, whereas over $300 per teacher had been budgeted (personal communication, MED staff).

\(^\text{16}\) The project had targeted only 50% of school principals for this training. (Instituto APOYO, 2001)
The testing system was successfully developed, and the first tests, norm-based, were administered to a sample of schools nationwide in 1996 and 1998. In recent months the MED has made available all testing results and many publications on its new website.

B. Recent Observations

Physical Setting and Resources. A visitor can note many signs of improved infrastructure, including newer buildings and new desks or tables, although these conditions are by no means universal. In a typical classroom of a teacher trained by PLANCAD, the desks have been rearranged so that children are sitting in groups facing one another. The walls are covered with large chart paper containing work by children. On one of the walls the rules for behavior in this classroom are displayed, agreed to by the teacher and children together. The children now have books and workbooks. In many classrooms the small classroom library is displayed, and in some cases a child serves as the librarian, so that students may check out books to take home. Teaching materials provided by the project are often in evidence, in particular math materials such as Dienes blocks (“bloques lógicos”). In some classrooms, small areas are set aside as “centers” — “science center”, “math center”. However I saw little evidence that children actually worked at these centers; they seemed designed more as interesting displays.

Several teachers and administrators have commented that the texts and workbooks are too hard for their students. In some schools I found that teachers were not using the books because of their difficulty. Similarly, many teachers have reported finding the new curriculum guides too difficult to understand.

Virtually every teacher mentions the dire shortage of teaching materials such as paper and markers. These are not provided by the MED, and many teachers must buy such supplies themselves. The “nuevo enfoque pedagógico” requires more of such materials, and this lack of resources is a hindrance to its implementation.

Instructional Methods. In 1999, I asked a colleague in PLANCAD to show me the best and the worst, in her estimation, of classrooms of teachers who had been trained. Based on her evaluation of how the institutions had done the training, we went to two school districts in

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17 To date, only complete Gr. 1-6 schools have been included in the testing (i.e., no students in multigrade classes have been tested as yet.)
18 http://www.med.gob.pe. The MED is definitely to be commended for its new openness in sharing data, and for the creation of this website.
19 Unfortunately, many of the new buildings and refurbished classrooms already have cracked walls, chipped or broken concrete, and broken windows, since no funds are available for maintenance.
20 A minor but significant improvement is that many of the desks are now flat-topped, so that when they are pushed together, children have a flat surface for working in groups on projects.
21 My favorite of these rules was “No se puede vender caramelos en el aula” (You can’t sell candy in the classroom).
22 In several classrooms around the country, even in schools where most teachers had been trained, we entered rooms where the teachers had not been trained, often due to late assignment of recent transfers. These rooms were bare, although they often did have the textbooks provided by the government, and typically the students were sitting in rows, taking dictation or copying material from the board.
23 PLANCAD did maintain a system of evaluation of the training, and did sometimes have to dismiss institutions that performed unsatisfactorily.
greater Lima. In the best-case scenario, we found teachers who had a genuine idea of what the new participative approach was all about. They had frequently prepared interesting lessons and children were working together to solve problems or learn material.

In the worst case observed, we saw a teacher take 45 minutes to get the children into groups. She then had them copy something from the board. It seemed that many teachers had concluded that “group work” per se was the new goal. Of course, simply arranging children in groups is not group work, and in fact, successful group work is not at all easy to implement. It was not uncommon to see group activities in which some students were doing all of the work while others did nothing. These teachers would benefit from learning more strategies, such as those used in cooperative learning, which are designed to ensure that all students participate and gain from the experience.24

Of course, group work is not the goal, per se; active student learning is the goal, and in the ideal case every teacher would have on tap a variety of strategies to use—group work, peer tutoring, whole class instruction, individual work—and would select appropriate strategies according to the lesson and needs of the class. There is still a long way to go in order for teachers to develop enough confidence in their own judgment so that they don’t have to rely on a teaching formula provided by someone else.

Bello (1998) did a study of the use of time in classrooms where teachers had PLANCAD training, finding that in fact children in PLANCAD classrooms did not do more group work than those in a control group. He did note, however, that, “Las profesoras capacitadas dedicaban más tiempo que las no capacitadas a la actividad instruccional y al diálogo con los alumnos; perdían menos tiempo por interrupciones o por distracción de los alumnos, y recurrían menos al control punitivo individual.” It is probably true that the climate is better in many classrooms now than it was in 1995. However, I have continued to note instances in which even excellent teachers publicly criticize pupils. For instance, a teacher in a very innovative project in the sierra, speaking of a little girl, in front of the class, said, “You know, she transferred from the afternoon, and so she’s way behind, because students in the afternoon class are always so slow.” Many teachers still seem oblivious of the damage their remarks may cause to a child’s self esteem.25

When asked what their greatest need for additional training is, many teachers and principals mentioned evaluation. Although the training included units on evaluation, it is clear that much more is needed on this subject. Even in the best settings, many teachers still had little understanding of how to evaluate students in an ongoing way and to adjust instruction for small groups to meet special needs.

Teachers also frequently mentioned the need for more training in how to teach reading. The subject of early reading was never well dealt with in the project. Essentially the new active curriculum was interpreted as mandating a “whole language” approach to teachers who didn’t understand it, in a setting in which there were few books. Many first grade teachers abandoned

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24 See the Cooperative Learning Center website at http://www.cclc.com/
25 Montero et al (2001) found that in the selva, teachers treated the children much more warmly.
this new approach, going back to their traditional way of teaching reading, and many of the institutions doing the training developed their own materials on the teaching of reading.

The Teachers. Comments from teachers who have received training are often very enthusiastic, many teachers seeming to feel that for the first time they are enjoying their teaching:

- A teacher in the sierra commented, “I used to be up here and the children were there. I had to go to them. Now they come to me, and they have ideas! They’re very creative.”
- A 5th-grade teacher was working in a room of estera (straw matting) that had been added onto the end of a very small school. The extraordinarily colorful room was decorated with posters and children’s work. The teacher said, “I was planning to retire until this happened. Now I have to stay to see how this all turns out. It’s the best thing that ever happened to me!”
- One teacher had stayed in school with her class after the rest of the school had been dismissed for a holiday. They were writing letters of invitation to their parents, to come to a special demonstration. The teacher explained that the parents were so curious about this new method she was using that they wanted to see it in action, so she was going to provide them with a demonstration class.
- A MED administrator commented that in the past teachers had rejected the training offered by the MED, whereas now they are asking for it. She commented, “Los maestros quieren superarse.”

During the course of the last five years, Peru has also undertaken a reform of its undergraduate teacher education programs, with assistance from the GTZ. An evaluation in 1997 found the quality of undergraduate teacher education to be worse than mediocre in many cases (Arregui et al., 1996). The teacher training institutes (ISP’s), in general, were suffering from the same neglect as the public schools; most had no libraries and few professional resources. The professors earned the same low salary as classroom teachers. The study also found that students with the lowest academic records often chose to enter teaching because they couldn’t get admitted to any other programs.

In 1996 the MED introduced a pilot curriculum for the undergraduate education of primary teachers in 13 ISP’s. Since then the pilot has been evaluated, improved and gradually expanded, and the new curriculum is now ready for implementation. In an odd twist of bureaucracy, the MED has responsibility only for the ISP’s, while the departments of education in universities are not accountable to the MED, and use their own curricula.

There are many more teacher training programs than needed, and they are graduating far more teachers than needed (Alcázar & Balcázar, 2001). The percentage of teachers with certification, less than 50% in 1993, has risen to 62% (Wu, 1999, p. 47), although it is still true that many more uncertified teachers are teaching in rural than in urban areas.

There is also considerable evidence that many teachers have suffered from the poor education they received in the system Peru is now trying to improve. They have little access to reading or resource materials, and do little reading (Arregui et al., 1996). As the PLANCAD program moved into grades 5 and 6 as well as the secondary, the staff found it necessary to produce a series of
self-teaching booklets containing subject area content for use by teachers who wished to update themselves in their fields.

One of the success stories of the PLANCAD project was the involvement of the institutions contracted to do the training. These were institutions, NGO’s or associations of teachers throughout the country that became acquainted, often for the first time, with the needs of the teachers in their local area. Many of them began to add courses to their normal curriculum to meet some of those needs. Noting the need for resources, one NGO got a separate grant to set up a teacher resource center. Many of these small remote institutions struggled hard to understand how to use the new pedagogical approach, but in the end they themselves learned a great deal and began to establish networks to meet the educational needs within their own communities. As an administrator in the MED commented, “Hay instituciones que se han animados y van a sitios lejos.”

One also meets many dedicated teachers who are making remarkable efforts in very trying circumstances. One group of teachers in the sierra had been involved in a project to foster democratic schools.\(^{26}\) They were so enthusiastic that, after special funding ended, they were trying to expand the project on their own. They had formed a network of interested teachers, and were planning to provide training themselves for other teachers in their districts. They had written up a project proposal to try to obtain the minimal funding needed for books and teaching materials. The local school authorities, although they had given official approval to the project, had no money to allocate for it.

Administration and Supervision. We heard frequently from principals that they initially had problems with parents who were accustomed to seeing orderly classrooms and tidy notebooks coming home.\(^{27}\) However, parents usually liked the new pedagogical approach once it was explained to them, especially when they perceived that their children were now happier in school.

Many teachers and principals told us that training should take place for the whole school. They found the grade by grade approach difficult because it meant that some teachers were trying to use a new approach that the others knew nothing about. In some instances, teachers in the upper grades had been so curious that they tried to implement the new program before “their year” came, even though they were still lacking books and materials.

It appears that little has changed in the principal’s role. This year I spoke with a young principal in the sierra who told me of her problems with a very unsatisfactory older teacher. This principal did evaluate her staff regularly, but she explained to me that the only option for dismissing an unsatisfactory teacher would be to request the reassignment of that teacher to the district or regional office. That would mean the loss of that teaching position in her school. Principals still have no budget and virtually no say in hiring or transferring staff. An exception is made for programs such as the Jesuit organization Fe y Alegría, which runs 41 public schools in Peru by convenio with the MED. Fe y Alegría selects its principals, and the principals have some veto

\(^{26}\) This USAID-sponsored project had been run by CIDE (Centro de Investigación y Desarrollo de la Educación).

\(^{27}\) The public relations program planned by the project never took place, and some principals had not received the PLANCAD training designed to help them present the rationale for the new methods to parents.
power over which staff are assigned to their schools. A recent study (Swope & Latorre, 1998) has shown that Fe y Alegría schools have lower repetition and dropout rates than do the other public schools. These data are particularly significant because all of the Fe y Alegría schools are in particularly poor areas.

Some hope for improvements in the role of the principal was provided by a norm (governmental regulation) passed in February, 2001, which granted “importantes atribuciones al director y a instancias de participación institucional para la planificación y programación educativa, la definición escolar, la contratación de personal y la evaluación de aprendizajes y del desempeño docente.” (Carta de Navegación, 2001, p.10) It remains to be seen how this norm will be put into practice.

Local specialists became very involved in the project in some areas. Although their role had been anticipated early in the project as supervisors to assist in evaluation of the training, PLANCAD staff found it necessary to offer more training for them than had been originally planned. When I visited schools in 1999, GTZ funds had been used to purchase vehicles for education offices in remote areas. The primary specialists in these areas knew exactly which teachers had been trained by PLANCAD, who was doing the training, and had knowledgeable opinions about how the implementation was going.

Although one does have the impression that use of instructional time is somewhat better in classrooms where teachers had PLANCAD training, there is still very little general awareness of the impact of educational time on task on children’s learning. For example, in a school in the sierra this year, the principal suddenly received word at 10:00 AM from the regional office that school should be dismissed at 10:30 AM, so that everyone could get ready for the town’s special birthday celebration the next day. Although this dismissal was completely unexpected, everyone immediately stopped whatever they were doing, and sent all of the children home.

Rural Education. An excellent study of rural education (Montero et al., 2001) describes a situation in rural schools today that mirrors the descriptions for all of the schools in 1993. School improvement has not reached the rural schools, for the most part, and rural students comprise 43% of the age 6-11 population in Peru. It is clear that teachers in rural schools, many of whom teach in multigrade situations or one-teacher schools, need special training as well as special materials. The study also cites instances of teachers who simply do not know the content they are expected to teach.

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28 In another school district, I was being shown around by a teacher who seemed very enthusiastic and dedicated. When I invited her to lunch after a long morning of school visits, she accepted with pleasure. It was only later that I learned she was a teacher in the afternoon session and had left her class unattended (with her principal’s permission) in order to come to lunch with me. Thus I was personally responsible for the fact that 40 children sat unattended in a classroom that afternoon.

29 In fact, sadly, the Montero study indicates that little has changed since Mario Vasquez wrote his devastating description of a rural school in Vicos in 1965 (Vásquez, 1965). Also see Muñoz et al (1991) and Lopez de Castilla et al (1990).
Teachers’ attendance continues to be a major problem in rural areas; teacher absences are attributable to the fact that these teachers are usually living apart from their families, with no housing provided. If they go home on weekends to see their families, the trip often takes them many days, such that one hears mention of “Wednesday school” in some areas. Furthermore, they often must travel for days to receive or cash their paychecks and to buy needed supplies. A Fe y Alegría school in one rural area came up with an innovative solution to this problem. They have agreed with parents to run school 6 days a week for three weeks, and then to have a week of no school, so that teachers can make their necessary trips.

Another major issue surrounding loss of school time in rural areas is that students miss school at certain key periods in order to assist in planting or harvesting activities. Although diversification of the school calendar is officially allowed, few districts or schools have taken advantage of this. Most principals and district officials still do not have the mindset for taking the initiative to make such important changes.

C. Other Data
The data from the new national tests given in 1996 and 1998 do not yet show any gains in achievement that may have resulted from the reform efforts of the nineties. However, the 1996 data should provide a useful baseline for future comparisons. In 1998, teachers of 3rd and 4th grades received training. Thus the 4th graders that year would have been the first students to be tested who might have received project benefits. At least some of them would have had books, instructional materials and a teacher each year who had just received the training. Of course, any real change takes place very slowly, and teachers need time and much more training in order to consolidate their new methods.

The test results from 98 have been analyzed in a series of excellent publications put out by the MED’s new Unidad de Medición de Calidad Educativa (Ministerio de Educación, 1999-2001). They do show such important associations as the fact that students who spent more time in school studying math got higher math scores. The data also show the typical link between achievement scores and socioeconomic levels. Peruvian urban students outscored rural students, even though the testing was done only in schools with all six grades (i.e., no multigrade schools or one-teacher schools were included). In addition, better student achievement was noted on the coast than in the sierra, with the selva ranking in third place (Ministerio de Educación, 2001a).

Another factor which may influence future test results is that the MED adopted a policy in 1996 to have automatic promotion in first grade. This decision was based on sound research showing that many children need more time to learn to read and write, as well as the findings that children who repeat a grade do less well than children in a control group who are promoted (Dawson & Rafoth, 1991; Doyle, 1989). In fact, the latest data from the MED do show a gradual reduction in the rate of repetition even after 1996, as well as declining dropout rates at the primary level. (Ministerio de Educación, 2000a; 2000c) (See Appendix 3 for data re enrollments.) Paradoxically, this success story could result in lower test scores, since children who were not doing well, who might formerly have dropped out, may now stay in school. Cueto and Chinen

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30 Personal communication, MED staff
(2000), in a study of the effects of school breakfasts on achievement, found that achievement scores actually went down in the group getting school breakfasts. They attributed this unexpected result to the fact that school time was lost during the provision of the breakfasts, and also to the fact that drop outs decreased in the group being provided breakfasts.

With regard to other countries, UNESCO did testing in 1997 of third and fourth graders in 13 countries in Latin America. (Ministerio de Educación, 2001c) (See Appendix 4.) In Peru no children would have been tested in 1997 who had received any benefit from Project MECEP. Depending on the subject, Peruvian 3rd and 4th graders were in or near last place among the twelve countries participating.\(^3\) What was most noticeable about the Peruvian scores, however, was the diversity. Peruvian third graders from “megaciudades” scored in sixth place on the language test, whereas those from rural areas were in last place.\(^4\)

On the Unesco tests cited above, Cuba scored considerably better than all other countries tested, on all measures, without the urban/rural differential typical in other Latin American countries. What is Cuba doing that is different? Cuba, in spite of its considerable economic problems, has steadfastly maintained health and education as top priorities. All children receive adequate food and medical care from birth, and the children look healthy and well cared for. The teachers all receive 5 years of university training. Principals provide strong instructional leadership and evaluate every teacher every year. They in turn receive regular supervision and support and are evaluated yearly by their supervisors. Public education in Cuba is taken seriously, and expectations for the performance of every pupil are high. (Gasperini, 1999; Wolff, 1999)

A recent World Bank study (Wu, 1999) points out that Peru is noteworthy for educating so many children at such a low cost. Indeed, the percentage of GDP allocated for education in Peru is only 3.0%, well below the average of 4.6% in Latin America and 5.1% for developed countries. Unfortunately, this “efficiency” has come at the cost of quality. As Bello has pointed out, “Access to school is not the same thing as access to education” (Bello, 2001b). Teachers’ salaries in 1999 fell to a level that equaled half of the purchasing power of those in 1942, while expenditure per pupil dropped by half between 1970 and 1998 (Carta de Navegación, 2001, p.19). School expenditures are also not administered equitably in Peru; schools in rural areas, including ISPs receive less equipment and fewer resources (Alcázar & Balcázar, 2001; Montero et al., 2001).

D. Summary: The Situation Now

Peru has made significant efforts to improve public primary education since 1993. These efforts have produced some visible improvements in many schools. In those schools, improvements were made in infrastructure, classrooms now have student work displayed on the walls and teacher-student relations are visibly warmer and more open than previously. Revised curricula for each grade were prepared and distributed, and many classrooms now have books, instructional materials and classroom libraries. Many teachers seem to have a notion of the importance and benefits of encouraging children to participate actively in their own learning, and they are eager to

\(^3\)The Unesco testing process has received some criticism, on grounds that the test did not adequately match some national curricula. Personal communication, Gilbert Valverde

\(^4\) Peru is now participating in PISA, the OECD international student assessment, a 3 cycle/9 year program that will assess 15 yr. old students in reading comprehension, mathematical literacy and science.
learn more. The school system has initiated a nationwide testing program and has made the resulting data available to the public. The undergraduate teacher training system is in the process of reform. Peru has made a valuable first step in the long struggle towards quality education.

On the other hand, the teachers do need continued training to deepen their understanding and broaden their repertoire of teaching strategies. Many remote areas of the country have not been reached by the improvement efforts. Although many principals and administrators have been trained, the school system is still centralized, with little autonomy given to schools. There is virtually no system of supervision, support and evaluation of either teachers or principals. Finally, total expenditure for education remains woefully inadequate.

IV. AGENDA FOR THE FUTURE

…lo que hagamos desde las escuelas y colegios será determinante de las características buenas y malas del Perú que tendremos dentro de 20 años y a lo largo del nuevo siglo…Tenemos que preocuparnos por definir, exigir, promover, apoyar, supervisar y verificar que todos los escolares (niñas y niños del Perú) adquieran las competencias mínimas requeridas para integrarse y desarrollarse como ciudadanos y como productores.”(Bello, 2001a)

With the arrival of the new millennium and the change of government in Peru, the climate has been right for thinking about the future. A number of excellent articles and reports have presented recommendations. The most recent are the document on education prepared for the Carta de Navegación33 (Carta de Navegación, 2001) (to be referred to as Carta) and the publication Voces Del País (Consulta Nacional de Educación, 2001b), the result of input gathered from all over the country (to be referred to as Voces). There is remarkable congruence between all of the documents reviewed and the opinions of educators interviewed. Following is a synthesis of the major themes, with comments on items particularly significant for improvement of instruction.34

A. IMPROVE EQUITY IN ACCESS TO EDUCATION

Generalize Access to Preschool. Make preschool available for all 5 yr. olds as soon as possible and extend coverage for 4 yr. olds.

Comment: Cueto and Díaz (1999) compared performance in first grade for children who attended no preschool, public preschool (escolarizado) or informal preschools (no escolarizado). They found that children who attended the public preschools had achievement increases of 25% in language and 22% in mathematics, whereas children who attended the informal programs had

33 This was a large effort to produce recommendations for Peru’s new government in 38 different areas. All are available at http://www.cartadenavegacion.com. The education proposal was prepared by Manuel Bello, in consultation with many other leading Peruvian educators.

34 In this section, there was consensus on most items. Citations are only provided in those instances in which particularly extensive recommendations were made or when only one or two sources made the suggestion.
increases of 15% in language and 17% in mathematics. It will obviously be worthwhile for the government to provide access to preschool taught by well-trained teachers.

**Provide Adequate Medical and Nutritional Programs for all Children.**

**Promote the Learning of Children in the Poorest Areas.**
- Develop a “Programa Especial de Alfabetización Infantil” to ensure all children learn the basic skills. *(Carta)*
- Provide targeted assistance to rural schools, including higher salaries to rural teachers.  
- Encourage the adoption of alternative school calendars to meet local needs.
- Develop supervisory mechanisms to make sure school is open and teachers are present.
- Create special tutoring programs or other compensatory mechanisms to help children in rural areas who have fallen behind because of absences (to help in agriculture tasks, etc.).
- Develop specialized curriculum approaches and teaching materials for multigrade teaching situations, and consider the use of programmed materials that allow students to move at their own pace. *(Thomas & Shaw, 1992)*

**Promote Programs for Inclusion of Special Needs Students in Schools.**

**Redistribute Per Capita Expenditure on Education to Poorer Areas.**

*Por debajo de la línea de subsistencia, los cambios institucionales o pedagógicos no tienen impacto en los resultados escolares de los alumno.* *(Tedesco, 1998)*

- Not only equalize expenditure but allocate more in the poorest areas in order to provide an adequate education to the poorest children. *(Tedesco, 1998)*

**B. REFORM THE ADMINISTRATION OF BASIC EDUCATION**

**Forge a national consensus on education with participation of all.**

**Decentralize.**
- Decentralize many resources and responsibilities to the district level. *(Ministerio de Educación, 2001e)*
- Provide more autonomy to individual schools and principals. There is complete consensus on this issue. *Carta* recommends that the transference of power be done slowly, starting with pilots of different models. Schools that are interested in participating would submit proposals,

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35 A second World Bank project is being planned, one major goal of which will be to improve rural education, (the other goals being undergraduate teacher training and technology)

36 In programs such as Colombia’s Escuela Nueva, children can progress at their own pace, so there really are no grade levels and therefore no repetition of grades.

37 This would be in line with Chile’s “900 Schools” program, in which extra resources were spent on the schools with the lowest scores on Chile’s national tests.
choosing their own model. As these pilots are evaluated, schools that have participated effectively would qualify for continued transference of power and of budget.

- Develop networks of schools to facilitate planning and the exchange of ideas.
- Establish small competitive grants to be awarded for innovative projects proposed by schools or networks of teachers.
- Provide awards for schools that do especially well in meeting the objectives of their School Improvement Plans.
- Develop new systems to provide support and supervision to principals and teachers. A MED working paper (Ministerio de Educación, 2001e) suggests that such support might be provided by means of a network of institutions similar to those that provided the PLANCAD training. They could be contracted by the MED to provide these services, which would be supportive, not evaluative in nature. Others suggest that the district personnel themselves should be trained, provided with transportation and asked to provide such support and supervision. Their role would also be to assist principals in achieving and managing their new autonomy.

Comment: Winkler and Gershberg evaluated the success of several efforts at decentralization in Latin America by comparing the extent to which the efforts enabled or encouraged schools to meet the characteristics outlined in the research on effective schools. They concluded that decentralization had been successful in instances in which it met most of the criteria as outlined in the following table (Winkler & Gershberg, 2000, p. 10).

<table>
<thead>
<tr>
<th>Características de las escuelas efectivas</th>
<th>Variables de descentralización que pueden contribuir a características específicas de las escuelas eficaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liderazgo</td>
<td>Los directores de las escuelas son seleccionados por la comunidad utilizando criterios transparentes. Los planes de mejoramiento escolar se desarrollan a nivel local. Se transfieren recursos a las escuelas para la implementación de los planes escolares.</td>
</tr>
<tr>
<td>Maestros capacitados y comprometidos</td>
<td>Se otorga autoridad a las escuelas para efectuar cambios curriculares y pedagógicos. Los maestros tienen considerable responsabilidad por el desarrollo de los planes de mejoramiento escolar. Se otorga autoridad a los directores para que implementen un sistema de evaluación del desempeño de los maestros. Se otorga autoridad (y recursos) a las escuelas para que tomen sus propias decisiones con respecto al tipo de capacitación que se entregará a los maestros.</td>
</tr>
<tr>
<td>Concentración en los resultados en términos de aprendizaje</td>
<td>El plan de mejoramiento escolar enfatiza los objetivos de mejoramiento del aprendizaje (y los resultados asociados, tales como la reducción de la deserción y la repitencia). La información con respecto al aprendizaje a nivel de la escuela es transparente.</td>
</tr>
<tr>
<td>Responsabilidad por los resultados</td>
<td>Los directores son designados a plazo fijo, sin que este plazo se renueve si no se cumplen los objetivos de mejoramiento del aprendizaje.</td>
</tr>
</tbody>
</table>
Create a system of observation and evaluation of basic education.

- Develop standards for what children should know, and indicators by which these standards can be measured. (Arregui, 2001)

Comment: Murnane and Levy suggest that in order to produce citizens who can be productive and function well in the new globalized economy, we must ensure that they have these “New Basic Skills”,

- The ability to read at the ninth-grade level or higher
- The ability to do math at the ninth-grade level or higher
- The ability to solve semistructured problems where hypotheses must be formed and tested
- The ability to work in groups with persons of various backgrounds
- The ability to communicate effectively, both orally and in writing
- The ability to use personal computers to carry out simple tasks like word processing (Murnane & Levy, 1996, p. 32)

In a similar vein, Hallak points out that there is “Consenso relativo en las nuevas competencias requeridas con el fin de enfrentar los retos establecidos por la globalización: para mencionar algunos: la capacidad de búsqueda de información relevante; investigar y examinar críticamente la información identificada; comunicar lo que se ha aprendido; diseñar y desarrollar nuevos resultados y productos en base a esta información.” (Hallak, 2000, p. 3)

- Consider the expansion of the MED testing program to cover all schools so that data will be available for individual schools and students.

Comment: Only when data are available for individual students and schools can the test results be used to help improve instruction, to reward schools for raising achievement levels, or to provide extra resources to schools in need.

- Evaluate teachers on the basis of student achievement. (Voces)

Comment: This is an area fraught with potential difficulty, especially given that another line of recommendations is to provide more resources and pay more to teachers in areas where children are the poorest and have the greatest educational need. It might be preferable to develop systems in which whole schools are rewarded when their students make progress beyond some expected measure.

- Develop a clear set of expectations and guidelines for evaluating teachers’ performance (Carta, (Ferradas, et al, 2000; Wu, 1999, p. 57)

Comment: An additional suggestion would be to train principals in how to provide supportive evaluations to help teachers improve. Also, there appears to be little or no concern in Peru about

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38 See also the very useful materials from the National Institute for Literacy about what people need to know in order to function in today’s world. (SCANS, 1991; Stein, 2000)
evaluation of the principal, although one may note in Winkler and Gershberg’s chart, above, the suggestion in the last box that principals have limited time contracts, such that presumably they could lose their jobs if the school does not do well. Certainly one would want to understand clearly who would be making such decisions, and on what bases. In any case, principals need the support and the feedback that would be provided if a well-trained and knowledgeable district supervisor visited the school at regular intervals and evaluated the principals’ performance.

C. IMPROVE THE QUALITY OF BASIC EDUCATION

Allocate a greater share of government funds to education. *Carta* recommends increasing education’s share of the GDP to 4% in 2002, 5% in 2003, and from 2004 on, to increase it by .5% annually until it reaches 6.5% in 2006, pointing out that this could be done by spending less on the military and by reprogramming some foreign debt.

Revise the Curriculum
- Simplify the curriculum, giving maximum priority to the basic competencies. (*Carta*)
- Adapt the curriculum to the needs of each region and district.

Change systems for allocation of resources
- Remedy “la brecha digital” between rich and poor by gradually providing computers to schools in accord with their school development plans. (*Carta*)
- Reorient programs for provision of equipment, texts and instructional materials so that schools will request what they actually need. Make available approved lists of texts and equipment and assign budgets to the schools. (*Carta*)

Emphasize values
- Develop a national campaign for democracy in the schools, taking advantage of successful experiences in projects over the last several years. (*Carta*)
- Model good values and respect for the viewpoints of others in schools.

Provide quality undergraduate teacher education and in-service training

…la convocatoria, selección, formación profesional inicial y continua, certificación, carrera e incentivos y remuneraciones de los maestros constituyen los aspectos más urgentes del cambio educativo en el Perú…(Arregui, 2001, p. 6)

- Reform undergraduate teacher training\(^{39}\)
- Develop a national system of accreditation for teaching training institutions. (*Carta*) (Ferradas et al, 2000)
- Require that institutions not able to achieve accreditation within a set period of time could no longer accept students.

\(^{39}\) The experience of PLANCAD demonstrates that a “rescue” operation of three weeks, though vital in initiating change, cannot substitute for a solid basic education and 4 or 5 years of quality undergraduate teacher education.
• Develop a national admission exam for entrance into any teacher training institution.
• Develop a national examination as one prerequisite for entrance into the teaching career, based on a new set of standards defining what teachers need to know and be able to do.\(^{40}\)
• Develop separate certification systems for administrators and teachers.\(^{41}\) (Ferradas et al, 2000)
• Evaluate the experience of PLANCAD and other in-service programs to extract lessons learned for consideration in future planning. \((Carta)\)
• Reorient teacher in-service training so that it is linked with school development proposals.\(^{42}\) \((Carta)\)
• Develop a flexible national system of in-service training to allow networks of schools or teachers to receive financing for research proposals or for teacher training that is approved by the MED and offered by a network of institutions approved by the MED. \((Carta)\)
• Emphasize the following in teacher training:
  o Strategies to facilitate participative learning, critical thinking and problem-solving
  o Evaluation, especially strategies for formative evaluation, and use of student errors as “a window to students’ thinking” that can be used to plan additional instruction
  o Appropriate use of time, and the importance of time as a factor in student achievement
  o Planning: lessons, series of lessons or units, a day, longer periods of time
  o The teaching of reading, mathematics and written composition
  o Positive treatment of children: positive strategies for maintaining order, techniques for positive treatment of student errors
• Maintain high expectations for all teachers in training, and emphasize the importance of their having high expectations for their own students.\(^{43}\)
• Model the kind of teaching desired in training programs and teach teachers how to work together and learn from each other.
• Plan in-service in which the trainer assists the teacher in the classroom.
• Provide training for all teachers in techniques for multigrade teaching.\(^{44}\)

**Comment:** Another suggestion would be to consider the development of demonstration schools or classrooms, so that teachers may visit and observe excellent teachers. Some systems, such as the Escuela Nueva in Colombia and District 2 in New York conduct much of their in-service training by permitting teachers to visit the classrooms of excellent teachers (while substitutes are provided in the classrooms of those visiting).\(^{45}\)

---

\(^{40}\) These standards could also be used for evaluation of teachers.
\(^{41}\) In this regard, it is also worth considering a special certificate for teachers of younger children, possibly for preschool through grade 3 (ages 3-8). Preschool and Gr. 1-3 teachers need to study early cognitive and language development, learning theory and special teaching strategies appropriate for young children.
\(^{42}\) Bello (2001a) points out the need for schools to convert themselves into “centros de aprendizaje permanente”.
\(^{43}\) Arregui (2001) has said, “Nuestra posición es que algunos de los factores principales del deterioro y la crisis actual de la educación nacional han sido justamente las expectativas mínimas bajas y decrecientes…”
\(^{44}\) Most techniques that are useful in multigrade teaching are excellent for single grade classrooms as well. In fact, they are consistent with the new pedagogical approach being promoted by the MED.
\(^{45}\) In New York’s District 2, a cadre of substitutes was trained to facilitate this process. First a teacher would visit the classroom of the excellent teacher for three weeks; the teacher would then return to her own classroom and try...
D. IMPROVE THE STATUS AND WORKING CONDITIONS OF TEACHERS

Los docentes son los únicos actores capaces de cambiar lo que se enseña y cómo se enseña, y también los únicos que tienen la capacidad de adaptar la enseñanza a cada necesidad infantil: toda reforma satisfactoria sólo se puede lograr por y a través de ellos.” (Hallak, 2000)

**Improve teachers’ salaries.**

- Pay teachers a living wage.
- Provide higher expectations to go with higher salaries.\(^{46}\)
- Redesign the pay scale (escalafón) to provide more pay for more training and advanced degrees
- Consider sanctions for teachers, particularly in regard to attendance. (*Voces*)
- Link teacher pay to merit. (*Voces*)

*Comment:* There are many suggestions that link teacher pay to merit, but teachers themselves often resist this. It has also been noted that giving additional pay to some teachers on the basis of merit is counterproductive if it is desired that a successful school culture be established in which everyone is working and learning together. One solution to this problem is to pay some teachers more because they are given increased responsibilities. For example, an excellent teacher might serve as a mentor to new staff members. Her classroom could be a demonstration classroom, as mentioned above. She might be selected to teach certain in-service courses. Another idea is to give bonuses to all teachers in a school that successfully meets its goals and improves student learning.

**Improve teachers’ working conditions**

- Give teachers the opportunity to work near their homes.
- Provide housing for rural teachers who must live far from home.

*Comment:* One issue that is not mentioned by most Peruvians is class size. Although class size is going down because of decreasing enrollment and the excess supply of teachers, it is still common to see classes of 40 or 50. There is now research showing that student achievement is higher if classes are kept very small in grades 1 and 2 (Mosteller et al., 1996). In the Peruvian situation, in which many teachers have little training and the children are particularly poor and need a great deal of extra help to succeed, it seems reasonable to think that a policy to keep classes as small as

\(^{46}\) A MED working paper (Ministerio de Educación, 2001d) refers to the present “bajas remuneraciones para bajos riesgos”, and another (Ferradas et al, 2000) suggests an entirely new model in which all new teachers would be contracted for set periods. These teachers would be carefully evaluated, and if their performance were satisfactory, their contracts would be renewed. Teachers already on tenure could be given a choice: they could remain in the tenure system at their present salary, or go on contract and receive higher pay for the less secure jobs.
possible in the lower grades would make possible the kinds of teacher-child interactions that promote self esteem, positive school experiences and student learning.

**Develop measures to improve teachers’ morale and prestige**

- Develop a system of recognition and reward for teachers who do a good job
- Promote the active participation of teachers in local and national development.

## V. CONCLUSION

Although noticeable improvements have been made in Peruvian primary education in recent years, there is remarkable consensus on the improvements still needed. A national survey was taken to gather opinions about education from all over the country, and it is widely recognized that participation by parents and community members is essential. Many Peruvians have pointed out the need for increased attention to equity, such that equal opportunities for learning may be made available to all Peruvian children, including those living in extreme poverty in isolated areas. The undergraduate teacher training system is in the process of reform, but this reform needs monitoring, evaluating and strengthening. Many have suggested systems of accreditation for teacher training institutions. The school system is still centralized and authoritarian, but there is increasing consensus about the need to provide autonomy to schools, to enable them to become owners of the process. This will require further training and support for school principals and other administrators. There is a need for standards and updated certification requirements for teachers and administrators and for a strong system of supportive evaluation and supervision.

There is no single solution for the improvement of public education: rather, a wide variety of actions must be taken simultaneously to produce quality. Peru has taken valuable first steps on most of these. Having achieved nearly universal access to schools, Peru’s goal now is to achieve universal access to quality education.
APPENDIX 1 - ACKNOWLEDGEMENTS

I cannot begin to thank here all of the teachers and principals whose schools I’ve visited since 1993. This list does include many of those whose classrooms and schools I visited in April of this year, those whom I interviewed in April 2001 and have pestered endlessly with questions since, as well as several other colleagues to whom I am indebted and grateful for their support through the years. I would like to thank them all for being so generous with their time, their writings, their thoughts and their friendship.

Marita Alvaro Torres  Patricia Oliart
Ada Mantha Aponte Cervantes  Alberto Palomino
Alix Jorge Aponte Cervantes  Miriam Pared
Patricia Arregui  María Paredes
Helga Bazán  Enrique Prochaska
Manuel Bello  Marta Quispe
Livia Benavides  Yolanda Quispe García
Cecilia Blondet  Haydee Quispe Palomino
Samuel del Castillo  Martha N. Quispe Perez
Nery Escobar  José Rodriguez
Padre Kevin Gallagher  Haydé Josefina Rojas Corres
Fanny Gálvez Tello  Gladiz Rojas Sanchez
Floriza García Amarín  Ana María Romero
Rosa García Huayta  Cecilia Thorne
Sonia Henriquez  Carmen Trelles
Eleutería Huamaní  Rosario Valdeavellano Roca Rey
Shane Hunt  Juan Fernando Vega
Jaime Jimenez Castillo  Raquel Villaseca
Pedro Marcelo Lazo  Richard Webb
Teresita Leonfèbres  Luz Antonieta Yace Figueroa
Carmen Montero  Gilbert Valverde
Carmen Moscoso  Rosario Zambrano
Silvia Ochoa

LOCATIONS OF SCHOOLS VISITED

School visits were made between 1993 and 2001. In many instances cities or towns were visited more than once. In most cases visits to a city included visits to schools in rural areas around them that could be reached by driving no more than two hours. A very rough estimate of the number of classrooms visited is about 228.

Lima area: Comas, La Independencia, Puente Piedra, San Juan de Miraflores, San Juan de Lurigancho, San Martin de Porras, Miraflores, San Isidro, Villa el Salvador, Villa María del Triunfo
Ayacucho
Cajamarca and rural areas around it
Huancayo
Huancavelica and area: Centro Poblado Sn. Jerónimo de Tuna, Lambaspata, Piopata
Huanta and environs
Juliaca and rural areas around it
Piura and area: Barrio Sur, Monte Sullón, Pedregal Grande, Simbilá
Puno
Urubamba

APPENDIX 2 – PLANCAD TRAINING DELIVERED

Docentes Capacitados y Directores Sensibilizados en PLANCAD entre 1995 y 1999

<table>
<thead>
<tr>
<th>Nivel Primaria</th>
<th>GRADO</th>
<th>CAPACITADOS EN AÑO</th>
<th>NUMERO TOTAL DE DOCENTES/DIRECTORES</th>
<th>NUMERO CAPACITADOS</th>
<th>TODAVIA NO CAPACITADOS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grado 1</td>
<td>1995</td>
<td></td>
<td>4,678</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.1 de escuelas polidocentes</td>
<td>1996</td>
<td></td>
<td>15,317</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.1 y 2 de escuelas multigrado</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.1 de escuelas polidocentes</td>
<td>1997</td>
<td></td>
<td>15,448</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.1 y 2 de escuelas multigrado</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacitación Complementaria de Grado 2</td>
<td>1997</td>
<td></td>
<td>7,516</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.3 y 4 de escuelas polidocentes</td>
<td>1998</td>
<td></td>
<td>19,977</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.5 y 6 de escuelas polidocentes</td>
<td>1999*</td>
<td></td>
<td>27,000*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gr.3-4 multigrado</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNIDOCENTES Piloto 1999*</td>
<td></td>
<td>8,731</td>
<td>40*</td>
<td>8,691</td>
</tr>
<tr>
<td></td>
<td>TOTAL DOCENTES DE PRIMARIA, DE ESCUELAS POLIDOCENTE O MULTIGRADO</td>
<td>127,957</td>
<td>89,976</td>
<td>37,981</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL DOCENTES DE PRIMARIA</td>
<td></td>
<td>136,688</td>
<td>90,016</td>
<td>46,672</td>
</tr>
<tr>
<td></td>
<td>Talleres de sensibilización para Directores del Nivel Primario</td>
<td>1996</td>
<td>8,994</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Talleres de sensibilización para Directores del Nivel Primario</td>
<td>1997</td>
<td>4,314</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL, TALLERES DE SENSIBILIZACIÓN PARA DIRECTORES DE NIVEL PRIMARIO</td>
<td></td>
<td></td>
<td>13,308</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capacitación de Directores del Nivel Primario en Liderazgo Técnico-Pedagógico</td>
<td>17,000</td>
<td>17,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TOTAL DOCENTES Y DIRECTORES DE NIVEL PRIMARIO

<table>
<thead>
<tr>
<th></th>
<th>153,688</th>
<th>103,284</th>
<th>63,672</th>
</tr>
</thead>
</table>

*Capacitaciones programadas; (the projected training of unidocentes never took place)*

Note: **Escuela polidocente**: a “complete school”, e.g., one with a class and teacher for each grade, 1-6

**Escuela multigrado**: an “incomplete school”, e.g., one with some classrooms of 2 or more grades, each taught by a single teacher.

**Escuela unidocente**: a school with only one teacher, which might or might not have all of the grades, 1-6. In this table, “unidocente” refers to the teachers of the one-room schools.

**Sensibilizado**: refers to orientation about PLANCAD provided to the principals.

Fuente: Oficina de Estadística del MED y reportes de las Direcciones Regionales y Departamentales de Educación del país a la Oficina PLANCAD.

---

**Docentes y Directores Capacitados por PLANCAD, 1995 - 2000**

<table>
<thead>
<tr>
<th>Año</th>
<th>Initial</th>
<th>Primaria</th>
<th>Secundaria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>4678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>2303</td>
<td>24311</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>3235</td>
<td>27278</td>
<td>2938</td>
</tr>
<tr>
<td>1998</td>
<td>3621</td>
<td>19977</td>
<td>13473</td>
</tr>
<tr>
<td>1999</td>
<td>4514</td>
<td>27407</td>
<td>7731</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>39182</td>
<td></td>
</tr>
</tbody>
</table>

Note: apparent discrepancies between this table and the one on the preceding page are caused by the fact that the figures in this table are the sum of teachers and principals.

APPENDIX 3

Table 1 shows some of the changes in enrollment in school at age 6, 11 and ages 6-11, between 1993, and 1998 and 1999, for all children in Peru.

Table 1. Enrollment and Percentage of Age Group Enrolled, 1993, 1998, 1999

<table>
<thead>
<tr>
<th>Age</th>
<th>1993 Enrollment</th>
<th>1993 % of age group</th>
<th>1998 Enrollment</th>
<th>1998 % of age group</th>
<th>99 Enrollment</th>
<th>99 % of age group</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>451,729</td>
<td>80</td>
<td>551,333</td>
<td>96.3</td>
<td>550,758</td>
<td>96.3</td>
</tr>
<tr>
<td>11</td>
<td>490,982</td>
<td>90.5</td>
<td>541,378</td>
<td>96.6</td>
<td>545,447</td>
<td>96.6</td>
</tr>
<tr>
<td>6-11</td>
<td>2,925,902</td>
<td>88</td>
<td>3,295,061</td>
<td>96.9</td>
<td>3,304,150</td>
<td>96.9</td>
</tr>
</tbody>
</table>

Table 2, on the other hand, shows the number and percentage of children in each grade who are the appropriate age for the grade. This indicates a considerable improvement in the number of children who are in the appropriate grade. Unfortunately, these data include private as well as public school children, so it is not possible to determine to what extent this improvement is true in the public schools.

Table 2. Number and Percent of Children in Grade at Appropriate Age
In 1993, 1998, 1999

<table>
<thead>
<tr>
<th>Age/grade</th>
<th>1993 Right grade for age</th>
<th>1993 % of age group in grade</th>
<th>1998 Right grade for age</th>
<th>1998 % of age group in grade</th>
<th>1999 Right grade for age</th>
<th>1999 % of age group in grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade for age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>445,076</td>
<td>78.8</td>
<td>547,807</td>
<td>95.7</td>
<td>549,611</td>
<td>96.1</td>
</tr>
<tr>
<td>7</td>
<td>298,169</td>
<td>53.2</td>
<td>447,089</td>
<td>78.4</td>
<td>449,546</td>
<td>78.8</td>
</tr>
<tr>
<td>8</td>
<td>253,335</td>
<td>45.5</td>
<td>362,387</td>
<td>63.8</td>
<td>365,089</td>
<td>64.1</td>
</tr>
<tr>
<td>9</td>
<td>231,136</td>
<td>41.6</td>
<td>323,862</td>
<td>57.2</td>
<td>323,355</td>
<td>57.0</td>
</tr>
<tr>
<td>10</td>
<td>213,143</td>
<td>38.9</td>
<td>283,476</td>
<td>50.3</td>
<td>301,261</td>
<td>53.2</td>
</tr>
<tr>
<td>11</td>
<td>207,430</td>
<td>38.2</td>
<td>267,740</td>
<td>47.8</td>
<td>280,040</td>
<td>49.6</td>
</tr>
<tr>
<td>6-11</td>
<td>1,648,288</td>
<td>49.8</td>
<td>2,232,362</td>
<td>65.6</td>
<td>2,268,902</td>
<td>66.5</td>
</tr>
</tbody>
</table>

Source: (Ministerio de Educación, 2000c)
APPENDIX 4 – UNESCO COMPARATIVE TEST DATA

Unesco - Third Grade Language Scores

<table>
<thead>
<tr>
<th>Country</th>
<th>Median</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Quartile</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>343</td>
<td>305</td>
<td>380</td>
</tr>
<tr>
<td>Argentina</td>
<td>263</td>
<td>230</td>
<td>295</td>
</tr>
<tr>
<td>Chile</td>
<td>259</td>
<td>225</td>
<td>294</td>
</tr>
<tr>
<td>Brasil</td>
<td>256</td>
<td>228</td>
<td>283</td>
</tr>
<tr>
<td>Venezuela</td>
<td>242</td>
<td>212</td>
<td>272</td>
</tr>
<tr>
<td>Colombia</td>
<td>238</td>
<td>207</td>
<td>271</td>
</tr>
<tr>
<td>Bolivia</td>
<td>232</td>
<td>199</td>
<td>275</td>
</tr>
<tr>
<td>Paraguay</td>
<td>229</td>
<td>198</td>
<td>264</td>
</tr>
<tr>
<td>Mexico</td>
<td>224</td>
<td>194</td>
<td>260</td>
</tr>
<tr>
<td>Peru</td>
<td>222</td>
<td>194</td>
<td>255</td>
</tr>
<tr>
<td>Dom. Rep.</td>
<td>220</td>
<td>191</td>
<td>256</td>
</tr>
<tr>
<td>Honduras</td>
<td>216</td>
<td>190</td>
<td>248</td>
</tr>
</tbody>
</table>

Countries are listed in rank order according to their median scores.
Source: (Ministerio de Educación, 2001c)
Unesco Third Grade Math Scores

<table>
<thead>
<tr>
<th>Country</th>
<th>Median</th>
<th>1st Quartile</th>
<th>3rd Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cuba</td>
<td>351</td>
<td>308</td>
<td>403</td>
</tr>
<tr>
<td>Argentina</td>
<td>251</td>
<td>226</td>
<td>278</td>
</tr>
<tr>
<td>Brasil</td>
<td>247</td>
<td>222</td>
<td>278</td>
</tr>
<tr>
<td>Chile</td>
<td>242</td>
<td>220</td>
<td>267</td>
</tr>
<tr>
<td>Colombia</td>
<td>240</td>
<td>219</td>
<td>264</td>
</tr>
<tr>
<td>Bolivia</td>
<td>240</td>
<td>217</td>
<td>273</td>
</tr>
<tr>
<td>Mexico</td>
<td>236</td>
<td>212</td>
<td>264</td>
</tr>
<tr>
<td>Paraguay</td>
<td>232</td>
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</tr>
<tr>
<td>Dom.Rep</td>
<td>225</td>
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<td>Venezuela</td>
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<tr>
<td>Honduras</td>
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<tr>
<td>Peru</td>
<td>215</td>
<td>192</td>
<td>241</td>
</tr>
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Source: (Ministerio de Educación, 2001c)
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